



Wise Traditions



IN FOOD, FARMING AND THE HEALING ARTS

A PUBLICATION OF

THE WESTON A. PRICE FOUNDATION®

Volume 18 Number 4

Winter 2017

CONTENTS

FEATURES

The HPA Axis Page 13
Karen Lyke describes how our hormones control all facets of life

A Primer on the Thyroid Page 25
Dr. Ronda Nelson explains the endocrine triangle and thyroid health

Bioidentical Hormones Page 30
Kim Schuette explains why they may not be such a good idea

Following in Dr. Price's Footsteps Page 40
Katie Williamson and Hilda Labrada Gore trace Dr. Weston Price's journey to Peru

DEPARTMENTS

President's Message Page 2
Hormone health at Wise Traditions 2017

Letters Page 3

Caustic Commentary Page 10
Sally Fallon Morell challenges the Diet Dictocrats

Reading Between the Lines Page 46
Merinda Teller examines assaults on the thyroid

The Wise Traditions Pantry Page 51
Maureen Diaz offers tips on dealing with family illness

Homeopathy Journal Page 55
Homeopathy for the thyroid gland

Technology as Servant Page 58
John Moody reviews the chicken's history as America's most consumed meat

WAPF Podcast Interview Page 63
Hilda Gore talks to Lindsea Willon about the blood sugar roller coaster

All Thumbs Book Reviews Page 69
Statin Nation
Big Chicken
Vaccination is Not Immunization
The Craving Cure
Gardasil: Fast-Track and Flawed

Vaccination Update Page 77
Kendall Nelson on the tragic consequences

Food Feature Page 81
Megan Stevens praises properly prepared cassava

Farm and Ranch Page 86
Will Winter takes us on the farm tour

Legislative Updates Page 88
Judith McGeary on the farm bill

A Campaign for Real Milk Page 91
The fight for raw milk in Humboldt County

Raw Milk Update Page 97

Healthy Baby Gallery Page 101

Local Chapters Page 102

Shop Heard 'Round the World Page 113

Membership Page 132

Upcoming Events Page 133

THE WESTON A. PRICE FOUNDATION®

Education ♦ Research ♦ Activism

BOARD OF DIRECTORS

Sally Fallon Morell, MA, President
Kim Schuette, CN, Vice President
Sylvia Onusic, PhD, CNS, LDN, Secretary
Valerie Cury, Treasurer
Pam Schoenfeld, MS, RD, Government Relations
Sarah Pope
Tom Cowan, MD
Cherie Calvert

BOARD MEMBERS IN MEMORIAM

Mary Enig, PhD, FACN, CNS
Nicholas Gonzalez, MD
Jerry Brunetti
Fred Kummerow, PhD

GENERAL COUNSEL

James Turner, Esq.

EXECUTIVE DIRECTOR

Kathy Kramer

HONORARY BOARD

Jen Allbritton, BS, CN
Naomi Baumslag, MD, MPH
Marie A. Bishop, CDC
Joette Calabrese, HMC, CCH, RSHom(NA)
Natasha Campbell-McBride, MD
Lee Clifford, MS, CCN
Christopher Cogswell, MA
Monica Corrado
Janice Curtin
Eric Davis, BDSc, DAc, DCN
Maureen Diaz
Sara Bachman Ducey, MS, CNS
James A. Duke, PhD
Mike Fitzpatrick, PhD
Ruth Ann Foster, MA
Donna Gates, BS, MD
Joann S. Grohman
Laura Hayes
Suzanne Humphries, MD
Beatrice Trum Hunter, MA
Mark A. Kastel
Felix Liao, DDS
Kilmer McCully, AB, MD, MA (hon)
Judith McGeary, Esq.
Leigh Merinoff
Carlos Monteiro
Kenneth Fielding Morehead, DOM
David Morris, BS, DC
Jill Nienhiser, BS, MA
Suroush Niknamian, BSc
Sandrine Perez
Kathryne Pirtle, BS, MA
Jessica Prentice
Phil Ridley
Bruce Rind, MD
Sir Julian Rose, BT
Julia Ross, MA
Beverly Rubik, BS, PhD
Joel Salatin
Adrienne Samuels, PhD
Stephanie Seneff, BS, MS, EE, PhD
C. Edgar Sheaffer, VMD
Ted Spence, DDS, ND
Alana Sugar, CN
Beverly B. Teter, PhD, FACN, CNS
John Umlauf
Susun S. Weed
Bruce West, DC
David Wetzel, BS
Louisa L. Williams, MS, DC, ND
Will Winter, DVM

President's Message

In this journal, we bring you articles by our main speakers in the Hormone Health series at Wise Traditions 2017.

First came Ronda Nelson, who presented a Friday all-day seminar on thyroid health. She noted that healthy thyroid function depends on support from the adrenal, pituitary and the sex glands (ovaries and testes). She talked in detail about testing for thyroid function, explaining what each facet of the test could mean. Finally, she presented suggestions on a thyroid-healthy lifestyle and diet, which—no surprise—is the Wise Traditions diet! See her article on page 25.

At the plenary session on Saturday, Karen Lyke began with a general description of the endocrine system, showing how each gland works in concert with the others to ensure conception, growth, energy, homeostasis and, finally, connection with the wider universe. Karen's wisdom can be found on page 13.


Kim Schuette shared her experience with treating women who had been on bioidentical hormones, explaining the pitfalls of such therapy and how to nourish your body so that it makes its own hormones, in just the right amount and at just the right times. Kim shares her findings on page 30.

Lindsea Willon spoke on the role of exercise in modulating insulin resistance and inflammation. Highlights of her talk are given in the podcast interview, page 63.

For the full talks of these experts (which are much more detailed than the articles) consider ordering tapes of the conference. The order form can be found here: fleetwoodonsite.com/index.php?cPath=40#.WlXej3R-pp.

Once our yearly conference is over, we take a deep breath, relax a few days, and then start planning our next conference. In 2018, we are bringing the conference back to the Mid-Atlantic region, at the beautiful Baltimore Hilton Hotel. Please note that the dates are one week later than usual—November 16-18. This is the weekend before Thanksgiving, so it's best to make your travel plans early.

We are also looking forward to working on several important projects in the new year. One is our push to get raw milk legalized in the last seven states (see page 94), a campaign led by the very capable Pete Kennedy. Another is a research project with Dr. Martin Grootveld at the University of Leichester in the U.K. We will be looking at breakdown products in fish and fish liver oils, fat-soluble vitamins in a variety of foods, and isoflavone (estrogen) levels in egg yolks from hens fed with and without soy.

Most importantly, we will keep up our efforts to bring the message of the Wise Traditions diet to as many as possible—the next generation depends on it! 



Letters



FRESH MILK IS HEALTHY!

My daughter's opera company, Orlando Youth Opera, is presenting *Brundibar* by Czech composer Hans Krása. The opera was composed right before World War II and tells the story of a brother and sister who search for fresh milk for their ailing mother. Many lines celebrate milk, butter, cream and cheese! One of my favorite lines is "Who needs a doctor's care? That's for the wealthy. Milk and cream your mother needs. Fresh milk is healthy!"

It makes me happy to hear these children singing about milk—especially knowing the composer meant real raw milk from a Czech family farm!

Lee Burdett
Altamonte Springs, FL

A WAPF-INSPIRED BUSINESS

I've been following the WAPF recommendations since I first learned about Weston Price's work in 2008 (right after my son Oliver's birth). In fact, I was so very moved and inspired by Dr. Price's work that we named our second son for him. After my first attempted home birth resulting in a C-section, I was beyond thrilled to give birth to Weston at home, safe in my own space, with no complications. It has truly been life-changing to be on this journey to better health through dietary changes and traditional nourishing foods!

I will advertise in the journal very soon, but I wanted to let you know that we have a small but long-established prepared foods business, the Oliver Weston Company. We use all WAPF-approved ingredients and cooking methods, providing soy-free pastured

eggs and poultry, fully pastured meats, beef tallow, lard, coconut oil, Himalayan pink salt, raw honey and grade B maple syrup. We soak and cook our beans in bone broth with kombu. We make gluten-free "sourdough" breads by fermenting whole millet and buckwheat grains. We ferment locally grown and organic produce into delicious cultured veggies. And, of course, we make bone broths with pastured bones and spring water—this is what we started with!

It has been a journey and we recently took a big plunge and rented our own kitchen with shop in Red Hook, New York (in the lovely Hudson Valley). We are slowly gaining local customers and continue delivering to New York City twice weekly, directly to our customers' homes. We especially love serving people who are seeking the highest quality food or recovering from illness, and also families with young children.

Our three boys have been raised this way and are beautiful, healthy children. Thanks to your work, and the work of Dr. Campbell-McBride, we have been able to address digestive issues in our first son and our marriage has been saved since getting off of gluten and sugar (my husband suffers a great deal of depression when he has these things).

Thank you from the bottom of my heart. We seek to educate and support everyone who is searching for a better way, as you and the Foundation do as well.

Hannah Springer
Chapter Leader
Dutchess County, New York

CHILDREN WITH HIGH IMMUNITY

One evening in the fall of 1999, on a whim, I went to the presentation, *Oiling of America*, in Nashua, New Hampshire. Little did I know how my life would change that night. I walked out of the meeting "on cloud nine" as my husband put it, because I had found someone unafraid to speak the truth regarding nutrition.

As a dietitian, I had struggled with the current lowfat tenets and with the pressure to promote margarine and vegetable oils, intuitively knowing this advice was wrong. WAPF validated my suspicions and I wholly embraced its philosophy. I became a chapter leader and never once looked back.

Fast forward nearly twenty years—I now have three children, all WAPF babies, all incredibly healthy and bright. (My daughter is a freshman at Fryeburg Academy High School where she is one of only two students, in a class of one-hundred-and-fifty, eligible to take Honors Algebra II.)

My son's best friend was recently diagnosed with pertussis. The condition actually went undiagnosed for three weeks, while this young boy coughed and coughed in our car and at our house. His mother, knowing my children were not vaccinated, called to alert me to his diagnosis. I was never worried, knowing that the foods we were eating would protect them. To the surprise of friends and family, my kids never came down with even a slight cough.

This is just one of many examples of how WAPF has affected our health over the years, and I cannot count the ways your work has helped family and



Letters



friends, too.

Indeed, my life changed on that fateful night in Nashua so many years ago. I have only immense gratitude for the advice that WAPF provides through its website, journals, and presentations.

Donna Dodge, Chapter Leader
Denmark, Maine

VACCINATION AGENDA FOR ADULTS

Check out this article in the September issue of the AARP Bulletin, setting the stage for forced vaccination of older adults just as the stage has previously been set for children from birth to eighteen, and now into the college years: aarp.org/health/healthy-living/info-2017/adult-vaccinations-risk-fd.html.

First, vaccination laws targeted the helpless infants and toddlers who couldn't verbalize what was happening inside their brains and bodies post-vaccination. Next, they targeted school-age children, and now college-age young adults, withholding school entrance and sometimes medical care from them unless they comply with scores of extremely dangerous, health-destroying, life-shortening vaccines. At the same time, they forced numerous vaccines on all military personnel, denying them the most fundamental freedoms of self autonomy and bodily integrity, while at the same time telling them they are putting their lives on the line in order to protect and uphold our "freedom" in America. Most recently, they targeted babies in the womb, lying to their pregnant mothers by telling them they must have multiple vaccines during their pregnancies in order to

protect their developing babies.

Now, they are targeting older adults (already happening in hospitals and elder-care facilities, and of course, at each and every doctor visit). Soon, doctors will be kicking out seniors who refuse vaccinations, and Medicare and health insurance companies will no doubt soon require vaccinations as a prerequisite for coverage.

Young and middle-aged adults, you are the last bastion—and you will be next. There will be no driver's license or passport renewals for you soon, no health insurance coverage unless you comply, nor will you be allowed to travel, maybe not even shop. Yes, it is coming. Unless we put a stop to it.

It appears that it is going to get worse before it gets better, if it ever gets better. Time will tell. We are living in tyrannical times. Don't be deceived that we are living in "the land of the free." When the powers that be dictate that heinous concoctions, by the score, and with no liability, be injected into your children, your aging parents, and you, you are not free.

Laura Hayes
Granite Bay, California

A GRANDMOTHER'S TESTIMONIAL

This was a testimonial I published on the Nourishing Our Children blog, and hoped it may inspire others!

Becky Audet Comeau explains that this photo was captured (next page) "when food was food and we grew almost everything we ate, and food was homemade. My parents also drove *ten* miles round-trip to buy raw milk. This would have been 1953 or so.

I'll be sixty-eight in a few weeks which proves it's never too late to start, or go back to what you knew as a child." Today, Becky posted in our Nourished Children forum on Facebook, and her words moved me to tears. I've been supporting community members like her for twelve years and this is what makes it all worthwhile.

Becky continues: "I so appreciate this group and I have learned so much! Thank you all for the things that you contribute. Our dietary habits have changed one hundred eighty degrees and we are all the healthier for it. I am an active grandmother in my eight-year-old grandson's life, and now fix him a wonderful breakfast every day of sausage and farm eggs cooked in a tablespoon of excellent butter. That plus a spoonful of cod liver oil and a glass of raw milk and he is off to school. He is looking and feeling healthier and his eczema and other skin conditions have completely cleared up. I also make his school lunch now and pack healthy nutritious foods in it. We do give him the option of school hot lunch maybe once a month, and in printing that menu today, I saw that the children have an option of either lowfat or 1 percent milk. It made my blood boil to see how government interference has negatively affected the school lunch programs. Our refrigerator is filled with whole raw milk that we get here in Colorado Springs and we are so blessed to have this."

She went on to add: "You have influenced me deeply and I've subsequently been able to influence others. I know now this message is carried one-by-one to those who are willing to dig for information and challenge

Letters

the SAD [Standard American Diet]. It's work to change deeply embedded ways and ideas. Just for the fun of it, I made a list of the things and foods we have changed. It's now over thirty-five things. Some small, like the kind of salt we buy. Some are huge, like the water purification system and shower filters we installed. The goal is gut health and complete health. I could not have done it without you."

When and how did you learn about us, I asked? "A few years ago I lived in Florida and was attending, a nutrition talk at a local chiropractor's office. He was all about the Weston A. Price Foundation teachings and was attending their seminars. I thought it was great and true information but did not fully grasp the importance of it all. My life got crazy and I backslid. Fast forward to last October. In complete desperation

with obesity, I joined Weight Watchers. I did well but soon became disillusioned with the fake food and the empty nutrition they espouse. I started searching



and saw something that triggered what I had learned in Florida. So we revisited the WAPF info and jumped in. I just

followed the trail of breadcrumbs and became a student of the Weston A. Price Foundation and its teachings. The information and assistance is all there but you have to be willing to cleanse your mind of all of the misinformation. By the way, I've now lost fifty-five pounds and I'm loving the butter."

I think that is a positive note to end on!

Sandrine Perez, Founder
Nourishing Our Children
Portland, Oregon

NUTRITION AND DISEASE IN SRI LANKA

It would come as no surprise to most *Wise Traditions* readers that over the past few decades the "displacing foods of modern commerce" have found their way into the homes of families in Sri Lanka. The correspond-

BECKY AUDET COMEAU'S LIST

- | | |
|--|---|
| 1. No processed food, everything is homemade | 19. <i>No Fake Food</i> [Emphasis is Becky's] |
| 2. Raw milk from a local farmer | 20. No fast food |
| 3. Farm eggs from a different local farmer | 21. Homemade ice cream |
| 4. Organic everything including bananas | 22. Plain, organic, full-fat yogurt or homemade |
| 5. Grass-fed beef (we bought a split quarter from a local rancher) | 23. No more orange juice or juice of any kind |
| 6. Organic chicken, locally obtained | 24. Making fermented foods |
| 7. No more supermarket meats at all (actually buy little from supermarkets in general) | 25. Kombucha |
| 8. Eating liver and lots of it | 26. Bone broths |
| 9. Organic butter and lots of it | 27. Locally or single obtained honey, maple syrup, olive oil |
| 10. No artificial or vegetable oils | 28. Grinding coffee beans, Parmesan cheese, other cheeses, bread |
| 11. Using avocado or olive oil | 29. Discontinued use of antibacterial soap |
| 12. Lard for pie crust (no Crisco) | 30. Using natural-based soaps (olive) |
| 13. Organic flour (no Roundup) and sprouted when I can get it | 31. Avoiding chemicals in personal and skin care products |
| 14. Butter in baked goods | 32. Discontinued use of most commercial toothpaste, and nothing with fluoride |
| 15. Heat-popped organic popcorn | 33. Homemade almond milk |
| 16. Discontinued use of microwave (threw it out) | 34. Nothing GMO |
| 17. No sugary cereals; limit grains in general | 35. Water filters in showers |
| 18. Emphasis on low sugar food in general | 36. Water purifier for drinking water |
| | 37. Threw out my cookware and replaced them with cast iron |



Letters



ing decline in nourishing whole foods has been exacerbated by almost thirty years of civil war, which has disrupted agriculture and the passing down of nutritional wisdom.

Since war ended in 2009, glyphosate, synthetic fertilizer and other chemicals, previously restricted since they could be used for bomb-making, have been aggressively promoted and are now used extensively. Prior to the war, Mannar district in the country's northwest, was one of the "rice bowls" of Sri Lanka. Now that there is peace, agriculture is fast recovering. However, there is widespread dependence on herbicides and pesticides. Sadly though, there is a dramatic increase in the incidence of cancer, diabetes, kidney and heart disease—this, in a country whose cuisine features such healthy ingredients as coconuts, turmeric, ginger, cinnamon, cloves and gotu cola.

A few large non-government organisations (NGOs) operated in Sri Lanka and helped to relieve the devastation wreaked by the Boxing Day tsunami (2004) and the culmination of civil war, but they have now left. Bridging Lanka is a small NGO that has several community development projects operating at the grassroots level in Mannar, employing ten local people and benefiting from overseas volunteers. The organization has recently influenced four farmers to allocate half an acre each to trial organic food production. They have also started a catering business with war widows. The focus is on preparing healthy traditional food to earn income, but they have also conducted workshops to raise awareness of nutrition and how to prepare wholesome meals for the wider

community.

What Bridging Lanka needs now is people with expertise who can assist with nutrition awareness and who can help create a model of nutrition education that can be replicated in other Sri Lankan communities. Just as a Maasai elder reached out to WAPF for input a couple of years ago, so is Bridging Lanka, on behalf of the Sri Lankan people, who are noticing a sharp increase in the incidence of chronic disease and disability. Those with expertise, compassion and a sense of adventure—we call upon you to lend a hand. For more information and contact details see bridginglanka.org or email: director@bridginglanka.org

Nigel Sloss
Brisbane, Australia

FLUORIDE EXPERIENCE

I'd like to share first-hand my my experience with fluoride. When I would get out of bed in the mornings I could hardly walk the six feet to my bathroom. The bones in my feet felt like they could crumble at any time. It was very painful to walk.

Then one day while perusing Facebook I read an article about the dangers of taking fluoride. I checked and found that the anti-depressant I was on was full of fluoride. I immediately stopped taking it and within three or four days I could feel a noticeable improvement in my feet. Within seven to ten days I was walking without any pain.

I did some research on the internet and found an article stating that fluoride causes skeletal fluorosis, which is often misdiagnosed as osteoporosis. It stated that doctors are not taught anything about this condition in med school.

I took all the info to a young doctor who was only out of med school eight months and he had never heard of it before.

It pays to research every medication that your doctor provides to you. It could be causing you more harm than good.

Karen Dahle
Holyrood, Newfoundland, Canada

GcMAF CONCERNS

In the Fall 2017 issue of *Wise Traditions*, Lee Emerson reported on a method to make GcMAF yogurt. Reviewing the literature on this subject, one quickly discovers that the majority of the research with GcMAF is with a lab-produced purified form of GcMAF or a human serum-derived version, both of which are administered intramuscularly.

There is a third compound called bovine or colostrum MAF whereby bovine colostrum is enzymatically processed to form a macrophage activating factor. Although there is one human case study administering oral bovine MAF as part of a larger treatment protocol (that also included injected human serum GcMAF), the only paper that provides a methodology for manufacturing and assaying bovine MAF is a mouse study in which the finished product was injected directly into the mouse small intestine.

To my knowledge, no other paper discusses an orally active form of GcMAF that has been verified by assay. Even if it were present, we have no randomized controlled clinical trials documenting an anticancer effect. Although we can measure a decrease in nagalase and report on an increase in

Letters

quality of life in human case studies, the anticancer benefits of an orally active form of GcMAF as bovine MAF remain speculative. Furthermore, the method with which to make bovine MAF, as detailed in the research literature, bears no resemblance to the recipe reported in this article and on related websites.

I am hopeful that dairy ferments may be a source of orally active GcMAF, but until we have a testable and repeatable protocol in place, there is insufficient evidence to claim that a specially prepared form of yogurt or kefir contain GcMAF.

Please see EastTroyAcupuncture.com/GcMAF for a comprehensive article on the subject with linked references.

Brandon LaGreca, CAC, MAcOM
Chapter Leader
East Troy, Wisconsin

IODINE DEFICIENCY

Thank you for your issue on cancer

(Fall 2017). I would also like to recommend the website, breastcancerchoices.org which looks at iodine deficiency as a factor in many breast tumors. I've personally seen lumps go away in a couple of days with iodine and a little cream that they recommend. They used to (and may still) send a free kit to have iodine tested for anyone diagnosed with breast cancer.

Isabella Smith
Bowie, Maryland

HOW MUCH SUN EXPOSURE?

In the article, "Cholesterol Sulfate and the Heart" (Summer 2017), Stephanie Seneff, PhD, reviewed her hypothesis that UVB rays from the sun synthesize cholesterol sulfate from dietary sulfur and cholesterol, and that the synthesized soluble cholesterol sulfate is essential for decreased risk of cardiovascular disease and high blood pressure. Accordingly, Dr. Seneff recommends eating foods rich in sulfur and advises readers to "get plenty

of sun exposure to the skin without sunscreen." Sunscreen interferes with synthesis of cholesterol sulfate by suppressing sunlight catalysis; in addition, the aluminum content of sunscreen interferes with cholesterol sulfate synthesis.

Other chemicals interfere with cholesterol sulfate synthesis, including glyphosate, the active ingredient in the pervasive herbicide Roundup. A strong correlation has been found between the increased percentage of hospital patients admitted for heart failure and increased application of glyphosate to corn and soy crops. Dr. Seneff also believes that use of cholesterol-lowering statin drugs may increase risk of heart failure.

Accordingly, Dr. Seneff recommends eating only certified organic foods and avoiding use of statin drugs. The hypothesis that cholesterol sulfate synthesized by the skin is important to heart and blood pressure functions makes sense. Dietary garlic, which is

INTEGRITY IN SCIENCE AWARD

Sally Fallon Morell presents the prestigious
Mary G. Enig Integrity in Science Award
to a very surprised Zöe Harcombe, PhD.

Previous Integrity in Science Award winners include:

Tetyana Obuykhanych, PhD (2016)
Beverly Rubik, PhD, and Allan Savory (2015)
Chris Masterjohn, PhD (2014)
Andrew Wakefield, MD (2013)
Stephanie Seneff, PhD (2012)
Fred Kummerow, PhD (2011)
Nicholas Gonzalez, MD (2010)





Letters



rich in organosulfur compounds, has been recognized for centuries for its health benefits including reduction of multiple factors associated with cardiovascular disease. Geographical data show an inverse association between sunlight availability and cardiovascular disease that apparently is unrelated to vitamin D. The recommendations to avoid use of sunscreen, eat only certified organic foods and avoid statin drugs also make sense. I plan to try my best to follow all of these recommendations.

However, Dr. Seneff's advice to "get plenty of sun exposure to the skin" is questionable in my opinion because of potential skin cancer resulting from excessive sun exposure. Over the past two decades I have had many skin cancer surgeries due to earlier excessive sun exposure, so I have avoided significant sun exposure. During that time I have relied on vitamin D supplements to meet vitamin D requirements. Dr. Seneff's article made it clear that some sun exposure for synthesis of cholesterol sulfate is essential for good health, but the question of how much sun exposure is required for cholesterol sulfate synthesis was not addressed.

Dr. Seneff's article mentioned the fact that the low risk of heart attacks as well as extended life expectancy in Iceland, Japan and Crete has been attributed to sulfur-rich soil and water derived from sulfur-containing volcanic basalt rock. Inasmuch as Iceland is located far north (65 degrees latitude) where sun availability is low during much of the year, it seems reasonable to conclude that cholesterol sulfate synthesis by the skin does not require a lot of sun exposure when sulfur intake

is adequate. Accordingly, it is my hypothesis that the amount of sun necessary for adequate vitamin D synthesis is probably sufficient for synthesis of cholesterol sulfate. I have therefore attempted to determine how much sun exposure is needed to produce 1000 IU of vitamin D, the amount which is probably necessary for an old man of eighty-three years.

The gap between beneficial UV exposure to obtain desirable vitamin D and harmful exposure leading to erythema (skin damage) is very narrow when the sun is high on a summer day. A minimal erythematous dose (MED) is defined as the amount of UVB radiation that produces perceptible pinkness in the skin, which is considered to be the beginning of skin damage. One MED is equivalent to an oral intake of somewhere in the range of 10,000 to 25,000 IU vitamin D. In Boston at the spring equinox (noon, March 19) exposure of one fourth MED in those with type 2 skin exposing face, neck hands and arms (25.5 percent of skin area) yields a dietary equivalent vitamin D dose of about 1000 IU in about 10 minutes, whereas a MED (and possible skin damage) occurs in about 40 minutes. If legs are also exposed under the same conditions, the time for production of 1000 IU is reduced to four minutes. Obviously, sun exposure required to synthesize vitamin D, and most likely cholesterol sulfate as well, does not require a lot of time (ncbi.nlm.nih.gov/pmc/articles/PMC3257661).

A study in Australia addressed the problem of insufficient levels of vitamin D which contribute to the development of osteoporosis—costing almost two billion dollars per year in direct

medical costs in Australia—versus the problem of excessive sun exposure, which results in about half of the Australian population experiencing skin cancer during their lifetime. Australian guidelines for recommended vitamin D intake are 200 IU/day from birth to fifty years of age, 400 IU/day for people fifty to seventy years, and 600 IU/day for those over seventy-one years. It was estimated that UV exposure required to produce 1/6 to 1/3 the erythematous dose is sufficient to meet Australian vitamin D recommendations. The amount of UV exposure required by those with type 2 skin and 15 percent of skin exposed (face, hands and neck) for adequate vitamin D synthesis was estimated at 10:00, 12:00 and 3:00 in seven Australian cities located between 19 to 38 degrees latitude. The UV exposure that results in a MED was also estimated. Because of the increased risk of skin damage that occurs at 12:00, the authors of the Australian study recommended avoiding exposure between the hours of 10:00 and 3:00 and advise "extreme care" when getting UV exposure near high noon. The data provided in the study can be used to estimate the amount of sun exposure required for vitamin D synthesis in areas of similar latitude in the U.S.

The recommendation in the Australian study to avoid sun exposure between 10:00 and 3:00 reduces risk of skin damage only modestly during warmer months. Further, exposure of only 15 percent of skin used in the study

Gifts and bequests to the
Weston A. Price Foundation
will help ensure
the gift of good health
to future generations.

Letters

poses unneeded risk since increasing exposure to about 60 percent of skin area decreases sun exposure required for vitamin D synthesis by a factor of four. Perth, Australia, one of the cities in the study, is about the same latitude as my home in Baldwin County, Alabama. Data from Perth suggest that during the hottest six months of the year in Baldwin County the average time required to synthesize 1000 IU of vitamin D is about 2 minutes at noon and 3.7 minutes at 9 AM and 3 PM for those with type 2 skin with 60 percent of skin exposed. The time required for absorption of one MED of UV which may cause skin damage is about 11 minutes at noon and 14 minutes at 9 AM and 3 PM (MJA, Volume 184 Number 7, 3 April 2006).

The data also suggest that in Baldwin County, Alabama, limiting sun ex-

posure to times when the sun's altitude is about 30 degrees (early morning or late afternoon) can produce 1000 IU of vitamin D in ten to fifteen minutes in those with type 2 skin (including me) with 60 percent of skin area exposed. Under those conditions, the time for sun damage to begin (one MED) increases to about one hour. I don't think such exposure would meet Dr. Seneff's advice to "get plenty of sun exposure to the skin" but such exposure is apparently sufficient to synthesize 1000 IU of vitamin D, and I expect will also produce adequate cholesterol sulfate.

Dr. Seneff's hypothesis regarding the association between cholesterol sulfate synthesis in the skin activated by sun exposure and cardiovascular disease is very convincing. Dr. Seneff's recommendations to consume foods high in sulfur, eat only organic

foods to prevent the toxic effects of glyphosates, and avoid sunscreen and cholesterol-lowering statins all make sense and have no associated downside. In contrast, the recommendations to "spend significant time outdoors" and "get plenty of sun exposure to the skin" may result in a high risk of skin and eye damage. To the best of my knowledge there is no reason to believe that sun-activated synthesis of cholesterol sulfate in skin requires more sun exposure than is required for adequate vitamin D synthesis. It is my hypothesis that the sun exposure required for adequate vitamin D synthesis, which can be obtained during early and late hours of the day when risk of sun damage is reduced, is sufficient for synthesis of cholesterol sulfate.

Jack Cameron
Fairhope, Alabama



Winners of the coveted WAPF Activist Award, with Sally Fallon Morell: Kris Johnson, Diane Ives, Becca Griffith, Susie Zahratka, Katie Williamson, Andrew Gardner, Nancy Eason and Susie Hagemeister.

Caustic Commentary

Sally Fallon Morell takes on the Diet Dictocrats

PURE VINDICATION

Earlier this year (Spring 2017), we reported on a talk by Dr. Salim Yusuf at Cardiology Update 2017, a symposium presented by the European Society of Cardiology ([youtube.com/watch?v=RwGteseHyas](https://www.youtube.com/watch?v=RwGteseHyas)). Yusuf gave us a taste of the data from the PURE study, a large ongoing epidemiological study carried out in eighteen countries. Well, the results are in and they are definitely not politically correct. The PURE study looked at the dietary intake of over one hundred thirty-five thousand individuals over seven years. During this period the participants suffered almost six thousand deaths and almost five thousand major cardiovascular disease events. Higher carbohydrate intake—not higher fat intake—was associated with an increased risk of total mortality while higher intake of total fat and higher intake of each type of fat was associated with lower risk of total mortality. Higher saturated fat intake was associated with *lower* risk of stroke. Total fat and saturated and unsaturated fats were not significantly associated with risk of myocardial infarction or cardiovascular disease mortality. The researchers concluded: “Global dietary guidelines should be reconsidered in light of these findings” (*Lancet* 4 Nov 2017:390 (10107);2050-2062). They certainly should! (But don’t hold your breath for changes any time soon.)

POPULATION IMPLOSION

If you were in college in the late 1960s (as I was), you may remember posters for Paul Ehrlich’s 1968 bestseller, *The Population Bomb*, which predicted that by the year 2000, we would be eating dogs and children and living on the moon due to lack of space on earth. The message of those posters was clear: college students should not burden the earth by having children. Ehrlich’s book had a similar message to that of eugenicist Thomas Malthus, who predicted that the world would run out of food by 1890. Now scientists are waking up to the real population crisis—that half the world’s nations have fertility rates below the replacement level of just over two children per woman. If recent trends continue, Germany and Italy, for example, could see their populations cut in half within the next sixty years. The consequences of a world in which children are rarities are dire—with huge amounts of resources taken up with care of the elderly (already a reality in Japan), economic downturn and a decline in innovation

(*New Scientist*, Nov 16, 2017). Researchers are blaming prosperity, the availability of birth control, the Internet and many other factors for the population decline, while ignoring the most obvious one: the worldwide replacement of animal fats with vegetable oils. Drs. Price and Pottenger predicted this population implosion years ago. They knew that animal fats support fertility while vegetable oils do not.

GUT FLORA AND AUTISM

Not only are we having fewer children, but so many of the precious children we are having suffer from autism and related disorders. A new study has found that an altered intestinal microbiome results in impaired social behavior in mice. Specifically, when a type of bacteria that produces bile acids and contributes to tryptophan metabolism is reduced, the result is marked gastrointestinal dysfunction and behavior that mirrors autistic conduct in humans. These results point to the many factors in the modern environment that can adversely affect gut flora: vaccinations, genetically engineered food, glyphosate, C-sections, a hyperclean environment and lack of lacto-fermented foods.

ALUMINUM AND AUTISM

An explosive new study has found that the levels of aluminum in the brains of autistic individuals are consistently high—some of the highest values for aluminum in human brain tissue yet recorded. The aluminum was found in the neurons but also “intracellularly in microglia-like cells and other inflammatory non-neuronal cells in the meninges, vasculature, grey and white matter.” In other words, the toxic metal was everywhere (*Journal of Trace Elements in Medicine and Biology* 40 (2017) 30–36). There is only one way the aluminum could have gotten into the brain in such quantity—by injection directly into the blood through vaccination. Our body has many mechanisms (including gut flora) to prevent the absorption of aluminum in food and water.

SEIZURES AFTER MMR

Vaccination proponents argue that the dangers from measles far outweigh the dangers of the vaccine. But a letter from Shira Miller, president, Physicians for Informed Consent published in the *British Medical Journal* presents a dissenting view. Miller notes that a large 2004 Danish study published

Caustic Commentary

in *The Journal of the American Medical Association* found that the risk of febrile seizures after an MMR vaccination is one in six hundred forty, a five-fold higher risk of febrile seizure than the risk of seizure from measles. Applying this number to the 3.64 million U.S. children receiving the MMR vaccination every year results in about five thousand seven hundred MMR-related seizures annually. A large 2007 epidemiological study found that 5 percent of febrile seizures result in epilepsy. Miller concludes: “There is insufficient evidence that mandatory measles vaccination results in a net public health benefit (bmj.com/content/359/bmj.j5104/rr-13).

IN UTERO FLUORIDE EXPOSURE

Pregnant women should be careful about drinking fluoridated water. That’s the conclusion of a recent study published in *Environmental Health Perspectives* (September 2017:125(9)), which found a drop in scores on intelligence tests for every 0.5 milligram-per-liter increase in fluoride exposure beyond 0.8 milligrams per liter found in urine. The researchers found no significant influence from fluoride exposure on brain development once a child was born. The scientists noted that “Community water, salt, milk, and dental products have been fluoridated in varying degrees for more than 60 years to prevent dental caries, while fluoride supplementation has been recommended to prevent bone fractures.” Pregnant women need to take extra precautions to avoid these sources of fluoride.

U.S. READING SKILLS PLUMMET

Reading scores of U.S. fourth-graders have been declining over the past few years. The U.S. ranked fifth in the world in 2011 but now has dropped to thirteenth place, with the biggest drop in students “in schools with higher free- and reduced-lunch rates, a rough proxy for poverty.” Martin West, an education professor at Harvard University notes that “efforts to improve educational outcomes for the most challenged students are not paying off” (*Washington Post*, December 5, 2017). Of course, professors of education are looking in all the wrong places to explain the decline. It has nothing to do with “educational efforts” and everything to do with the damage inflicted on our childrens’ vulnerable brains by vaccinations, fluoridated water and lowfat, high-sugar diets as typified in free- and reduced-rate school lunches.

MUMPS OUTBREAK

A recent article about a mumps outbreak at three Washington, DC universities caught my eye. The article noted that officials are taking steps to control the infectious disease by moving infected students to a separate unoccupied space and suspending offering the chalice at communion. Conspicuously absent from the article was any mention of vaccination—presumably because all the infected students were already vaccinated. The article also lists as symptoms “fever, headaches and swollen and tender glands under the ears.” The report made no mention of the really serious side

POPULAR EXHIBITORS AT WISE TRADITIONS 2017



Elaine Boland of Fields of Athenry Farm donated gallons of delicious bone broth to the conference, including rich beef stock served at the banquet dinner.



Ruthie Wetzel and Dr. Jie Zhang at the busy Green Pasture Products booth.

Caustic Commentary

effect in young men—painful swelling of the testicles, often leading to permanent sterility. This is what happens when through vaccination, you don't allow boys to get the mumps when they are young (*Washington Post*, November 6, 2017).

OUR TOXIC WORLD

The number of chemicals applied to vegetables sold in supermarkets has increased by up to seventeen-fold over the past forty years, according to data presented at a conference organized by the Epidemiology and Public Health Section of the Royal Society of Medicine in London, November 20 of this year. Even worse, regulators test only the single active ingredient in pesticide formulations, and not the many adjuvants added to enhance the effectiveness of the active ingredients. No one is looking at the combined effects of these pesticide formulations, or the results of exposure to multiple pesticides. Pesticides are linked to hormone disruption, low sperm quality, miscarriage and decreased fertility. Exposure to very low doses of the Roundup herbicide—far below the permitted levels—caused non-alcoholic fatty liver disease (NAFLD) in rats. Today about 25 percent of the population in the U.S. and Europe suffers from NAFLD. Big Ag argues that it is impossible for farmers to manage without pesticides, a view contested by the final speaker at the conference, Peter Melchett. Melchet has been an organic farmer for nineteen years and was a conventional farmer before that. He reported that since converting to organic, he has only had to spray a single field once—when he planted two related crops in the same field two years in a row. Farmers like Melchett use crop rotation, barrier methods against pests, cultivating hedge rows and planting cover crops to minimize the need for pesticides and herbicides (<http://gmwatch.org/en/news/latest-news/17988>).

VITAMIN A FROM LIVER

In these pages, we like to keep our readers up to date on any research involving vitamin A. But I recently stumbled on a 1994 paper that compared the results from taking a retinol supplement (either orally or as an injection) with eating liver. Those given the supplement had higher plasma concentrations of retinyl palmitate compared to those who ate liver, but they also had much higher levels of all-trans retinoic acid in their blood. All-trans retinoic acid is considered to be the teratogenic form of vitamin A—the form that causes birth

defects. Said the researchers: “Advice to pregnant women on the consumption of liver based on the reported teratogenicity of vitamin A supplements should be reconsidered” (*Human & Experimental Toxicology* (1994) 13, 33-43). In other words, pregnant women should eat liver rather than take vitamin A supplements.

MORE DEATHS WITH STATINS

Even conventional scientists have to admit that evidence that taking cholesterol-lowering statin drugs is “sparse and conflicting,” particularly for patients aged seventy-five and older. Even worse, new evidence indicates that taking statins may make you more at risk for dying. Researchers at the division of geriatric medicine and palliative care, New York University, performed a secondary analysis of data from the ALLHAT (Antihypertensive and Lipid-Lowering Treatment to Prevent Heart Attack) trial. Earlier researchers claimed that the group taking statins had lower all-cause mortality, but that is not what the New York University researchers found. They focused on twenty-eight hundred older participants who had hypertension and “moderate hypercholesterolemia” but no atherosclerotic cardiovascular disease at baseline. Half received the statin pravastatin and the other half had no statin “therapy.” After six years there were one hundred forty-one deaths in the pravastatin group versus one hundred thirty in the control group. “This represents a nonsignificant trend toward increased mortality with statin therapy. The results were similar, with pravastatin providing no significant benefit regarding coronary heart disease, stroke, heart failure and cancer events” (*Cardiology News*, May 24, 2017). Moral: when your doctor offers you a statin, just say No! ☹☹☹

FOR SCIENTISTS AND LAY READERS

Please note that the mission of the Weston A. Price Foundation is to provide important information about diet and health to both scientists and the lay public. For this reason, some of the articles in *Wise Traditions* are necessarily technical. It is very important for us to describe the science that supports the legitimacy of our dietary principles. In articles aimed at scientists and practitioners, we provide a summary of the main points and also put the most technical information in sidebars. These articles are balanced by others that provide practical advice to our lay readers.

The HPA Axis

Hypothalamus-Pituitary-Adrenal

An Introduction to the Major Hormones that Operate and Maintain the Body

By Karen Lyke, MS, CCN, DSc, CGP

Life is a continuum of constant change. The body, the vessel that houses us in the course of life's journey, is in a constant state of adaptation and adjustment. In addition to the changes from conception, birth and childhood, puberty, to maturity, senescence and death, the body has diurnal and seasonal rhythms, as well as others with cosmic forces far beyond our present earthly cognizance. It responds to stimuli and interactions with the external environment as well as to fluctuations and changes within itself.

Reception and response to external stimuli connect us with the world around us. Internal processing of such input serves to shape and clarify who we are, how we interact with the world, and what we give back to it.

The tissues affected by the endocrine axis comprise all those of the body, in a semi-hierarchical system.

The process of maintaining constancy amidst change is called homeostasis. Homeostasis is coordinated most obviously via the neurotransmitters of the nervous system and the hormones of the endocrine axis. The endocrine axis has correspondences with the chakras of Eastern spiritual disciplines¹ but modern Western medicine has simplified this to the HPA (hypothalamus-pituitary-adrenal) Axis. The HPA axis continually assesses what's happening in the body, gives feedback, and calls for appropriate action, using hormones as its messenger molecules.

Hormones are the messenger molecules that coordinate and direct immediate adjustments, diurnal rhythms and the longer transitions across the stages of life: infancy, childhood, adolescence, maturity, senescence and death. They work in coordination with neurotransmitters.

The key difference between hormones and neurotransmitters is that hormones are generated by specific glands.² The hormones are conveyed through the bloodstream on protein carrier molecules to their target organs, where they are received by specific cellular receptors.

Neurotransmitters travel essentially as electrical impulses directly from neurons (nerve cells) to other neurons or to muscle cells, usually a shorter distance, moving instantaneously, much more rapidly than hormones, and without particular (or obvious) rhythms.

THE HPA HIERARCHY

The HPA endocrine axis is based on the components that currently get the most attention in Western medicine, and addresses interactions among the hypothalamus, pituitary and adrenal glands. The tissues affected by the endocrine axis comprise all those of the body, in a semi-hierarchical system. In this system, the “general” (the hypothalamus) perceives, oversees and assesses everything going on in the body, then informs its “officer lieutenants” in the pituitary gland. The “officers” in the pituitary gland inform the “sergeants” (the target organs), who then enlist the “troops” (particular biochemical processes) in the relevant tissues or organs in the body. The enlisted or activated tissues include the visceral organs—heart,

lungs, intestines, kidneys, liver, pancreas (and their less publicized ancillary agents such as the gallbladder, spleen, blood vessels, etc.)—and the skeletal muscles.

The secretions or hormones from these glands thus have an effect on the entire body and its balance amidst constant input and response—thus maintaining homeostasis. It is an intricate and delicate system of feedback loops and checks and balances, affecting all the cells and tissues of the body, whose operation and processes it maintains both day to day and across the years.

The entirety of the endocrine system comprises the pineal gland, the hypothalamus, the pituitary, the thyroid and parathyroid glands, the thymus, the pancreas, the adrenal glands and the gonads—ovaries in women, testes in men. In this essay, the focus will be on the hypothalamus and the pituitary, and their key agents, the thyroid and adrenal glands, and to a lesser extent, the gonads or reproductive organs.

HOMEOSTASIS

Occupational therapist Maude LeRoux describes beautifully in her book *Our Greatest Allies*³ the fundamental capacities exhibited by a being newly arrived in this world:

- Vestibular balance—a sense of uprightness or verticality
- A way to modulate the amount of sensory input allowed in
- A way to process what stimuli are allowed beyond one's outer boundaries.

These are facets of homeostasis, and remind us that when someone doesn't respond as we might expect, that person's homeostatic mechanisms, especially the HPA axis, are probably fully occupied and don't have room for anything more. In other words, it's not malice; it's simply a self-preserving physiological response. Often a homeostatic effort by the body is considered a disease or illness, which allopathic medicine commonly seeks to obstruct or eliminate. A more holistic perspective views imbalances such as fever as the body's efforts to “burn out” some potentially toxic or extraneous substance. Similarly, digestive upsets—vomiting or diar-

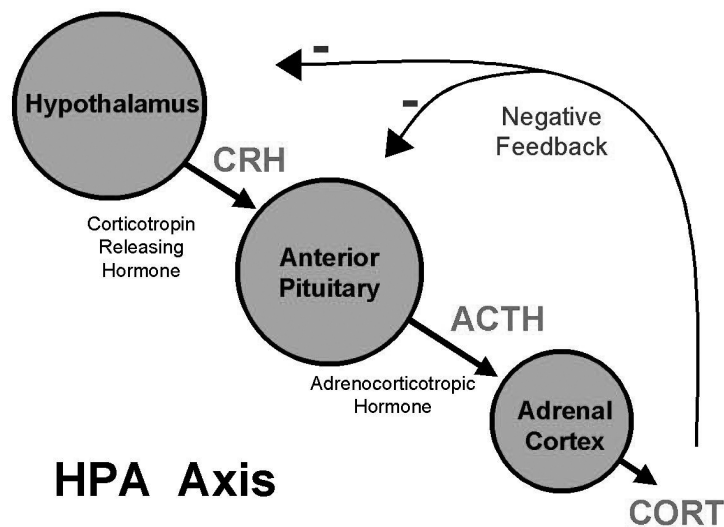
rhea—or skin eruptions like rashes and warts are recognized as efforts to eliminate noxious substances.

In exploring the endocrine axis it can be daunting to keep track of so many terms, many of which seem similar, along with their corresponding abbreviations, and then try to remember their particular functions and the subtle differences and relationships among them! Most of the names are ancient language equivalents, mostly from Latin and Greek, simply meaning “that do-widget which is next to the thing-a-mabob.” The names are descriptions of function or location. Pronunciation, as a wonderful biology prof instructed us decades ago, is usually based on emphasizing the least meaningful syllable of the word.

A disturbance in any of the organs or tissues⁴ in the HPA or greater endocrine system affects all of the glands of the axis, eventually affecting the entire body. In other words, a thyroid problem is not merely a thyroid problem, nor is adrenal fatigue simply an adrenal issue. An imbalance or malfunction assumed to be simply a disturbance in one area of the body really is a systemic problem, affecting the entire body. A fundamental tenet of therapeutic massage states: “it’s all connected.” While this understanding is fundamental with acupuncturists, neuromuscular therapists and craniosacral therapists, few allopathic medical practitioners take this assumption into consideration.

THE HYPOTHALAMUS

The hypothalamus of the HPA is located centrally in the cranium at the floor of the cerebrum (brain), surrounded by cerebrospinal fluid (CSF) and in close and continuous contact with freshly oxygenated blood from the aorta. It is at the crossroads of the central and peripheral nervous systems (CNS and PNS, respectively), as well as circulatory flow, and thus monitors the most recent changes and conditions throughout the body. Information on external sensory input such as taste, smell, touch, sight and sound, as well as visceral responses arrive at the hypothalamus, apprising it of blood temperature and pH; solute content as osmotic pressure and barometric pressure; general and specific levels of amino acids, mineral levels and balance; and blood sugar (glucose and other) levels, concentrations of insulin and other hormones. In addition, the hypothalamus registers gastric motility, heart rate and contractions of the urinary bladder, along with circadian changes and the transformations of the life cycle. The hypothalamus is indeed the central monitor and control center for the body.



HPA Axis

Having assessed everything from both circulatory and nervous systems, the hypothalamus responds accordingly. Based on the information flowing through it, the hypothalamus dispatches individual hormones in two sets to the pituitary. One set includes oxytocin and antidiuretic hormone (ADH). Both are synthesized in the hypothalamus, derived from the same prototypical protein. The two hormones travel, separately, to the posterior pituitary gland (also called the neurohypophysis) for storage, ready for release as directed. They both promote smooth muscle contraction. Oxytocin stimulates uterine contractions, especially important for childbirth, then contracts the mammary glands for milk “let-down.” Oxytocin is known as the “love

hormone” because it also promotes instincts for cuddling and nurturing, as well as sexual arousal and orgasm.

ADH also goes by the name AVP or arginine vasopressin. It prompts contraction of the smooth muscles in arterioles and sweat glands, causing them to retain fluid. ADH also prompts the kidneys to retain water. The posterior pituitary releases ADH when blood pressure (BP) is low, and also in times of pain and exposure to drugs such as nicotine, morphine and barbiturates, perhaps providing “dilution as the solution to pollution.” Excessive ADH release in the hypothalamus occurs with severe blood loss, trauma or other injury or abnormal cells such as cancer. Excessive ADH release with consequent excessive water retention is manifest as weight gain, bloating and hypo-osmolality of blood (that is watery blood or too much liquid and not enough minerals, blood cells, carrier molecules with cargo, or other dissolved content).

The other set of hormones from the hypothalamus comprises both releasing and inhibitory hormones. These go from a capillary bed

Hormones from the hypothalamus inform the pituitary that there's work to be done.

in the hypothalamus, through a vein directly to a capillary bed in the anterior pituitary.⁵ They do not go through the systemic circulation, nor do they pass through the heart and lungs. They arrive directly at the anterior pituitary (also known as the adenohypophysis), where they convey their instructions to yet another set of hormones, the tropic hormones.

Hypothalamic-releasing hormones include:

- Growth hormone-releasing hormone (GHRH)
- Thyrotropin-releasing hormone (TRH)
- Corticotropin-releasing hormone (CRH)
- Gonadotrophin-releasing hormone (GnRH)
- Prolactin (PRL).

Countering, or putting the brakes on the synthesis and release of tropic hormones from the anterior pituitary, are two additional hormones from the hypothalamus. These are inhibitory hormones:

- Growth hormone inhibiting hormone (GHIH), also called somatostatin
- Prolactin inhibiting hormone (PIH) also called dopamine.

THE PITUITARY

Hormones from the hypothalamus inform the pituitary that there's work to be done. Tropic hormones from the anterior pituitary then go out into the body to set the appropriate work-response into action.

The pituitary gland was in past years known as the master gland but lost that title as awareness of hypothalamus function increased. Current thinking is that the hypothalamus is the central controlling agent, whose role is to notify the pituitary to send out deputy messengers to the tissues (and the cells of which they are made), which do the actual work.

The pituitary gland rests in the sella turcica (Latin for Turkish saddle), a small indentation in the sphenoid bone. The sphenoid bone is notable because it comes into contact with every other bone of the cranium or skull. The significance of this is that any shift in position of the cranial bones affects the pituitary. Such a positional shift could come from obvious physical trauma

like a blow to the head, or from subtle shifts in the fascia.⁶

Dr. Weston A. Price, in his seminal work, *Nutrition and Physical Degeneration*,⁷ noted that vitamin E deficiency produced changes consistent with those of hypophysectomy (surgical removal of the pituitary gland). Down syndrome, prolonged gestation possibly with resorption of the fetus, incomplete calcification of the skull and degranulation of the anterior pituitary are all abnormalities Dr. Price was aware of in connection with vitamin E complex deficiency.

The anterior pituitary synthesizes and releases specific hormones in response to the arrival of releasing, or inhibitory, hormones from the hypothalamus. The anterior pituitary secretes:

- Somatotropins such as growth hormone (GH)
- Corticotropins such as adrenocorticotrophic hormone (ACTH)
- Gonadotropins such as follicle-stimulating hormone (FSH) and luteinizing hormone (LH)
- Lactotropins such as prolactin (PRL)
- Melanocyte-stimulating hormone (MSH).

SOMATOTROPINS

Somatotrophs are the most abundant cells in the anterior pituitary. These anterior pituitary cells release somatotrophic hormones (somatotropins), particularly GH (growth hormone or hGH for human growth hormone) in response to releasing GHRH from the hypothalamus. GH travels through the bloodstream to the tissues of the body, particularly the liver, skeletal muscle and cartilaginous structures such as fascia, joints and bones. In the pancreas, GH stimulates the release of glucagon, a hormone whose name means "glucose is all gone," to activate a rise in blood sugar. In other tissues GH elicits synthesis and secretion of IGFs (insulin-like growth factors).

IGFs prompt cells to grow by activating uptake of both the increased glucose in the blood as well as of amino acids and their incorporation as proteins⁸ into the substance of a tissue. In childhood and adolescence, the effect

is to promote growth. In adults, IGFs maintain muscle and bone mass and support tissue repair. In addition, IGFs promote lipolysis, release of fats (lipids) from adipocytes (fat cells), for use as fuel by the cells affected by GH. Interestingly, IGFs decrease uptake of glucose by those affected cells, giving preference to the use of fats for ATP production, sparing the glucose so that it can be used by the neurons (nerve cells) in the brain.⁹ Perhaps this is a factor in the difference between insulin and IGF.

Insulin is made and secreted by the pancreas in response to elevated blood sugar. Unlike IGFs, which decrease the uptake of glucose by the cells, insulin's most prominent role is to deliver blood glucose to cells where it is used to generate energy as ATP. Insulin also facilitates entry of amino acids into cells and activates protein synthesis. Insulin is unlike most other hormones in that it is anabolic, that is, it promotes construction of substances, in contrast to catabolic agents which break substances down. Any excess glucose, or protein as amino acids, beyond what can be immediately used for fuel or construction, is either stored as glycogen or as fat.

This is a crucial point. It is not fat that makes a person fat; it is excess carbs. The body converts excess carbohydrates, particularly refined carbohydrates, to *fat*.

Insulin's net effect is to lower blood sugar. If blood sugar is chronically and inordinately elevated, after a while the β -cells of the pancreas lose their capacity to secrete insulin and burn out, resulting in diabetes. This happens with constant consumption of refined sugars and starches. Continued fluctuation of blood sugar levels places exhausting demands on homeostasis and the entire hormone axis, and is profoundly stressful. The ensuing disorder then emerges as disease. Simply eliminating the symptoms, either by covering them up or blocking the metabolic pathways that generate them, does not cure the disease nor heal the person. Mere elimination of symptoms perpetuates the endocrine axis disarray, and in effect drives the disease deeper.

In a healthy, properly operating system, as blood levels of glucose rise, feedback to the hypothalamus inhibits GHRH and activates GHIH

(that is, somatostatin¹⁰). GHIH then instructs the somatotrophic cells of the anterior pituitary to cease producing and secreting GH.

Regulation of both GHRH and GHIH is through blood sugar (glucose) levels, with hyperglycemia inhibiting GHRH—as if to say “Enough already! Don’t promote any more growth!” Hypoglycemia, low blood sugar, by contrast, has an inhibitory or suppressive effect on GHIH, and the net effect is to increase GHRH, hence GH, with consequently increased levels of blood glucose. Chronic or persistent excess of GH leads to constant hyperglycemia or elevated blood sugar. This in turn prompts the pancreas to secrete insulin, since blood sugar levels as well as fluid are closely regulated.

An excess or hypersecretion of GH affects the growth of tissues throughout the body but becomes most evident as excessive growth in the long bones, leading to abnormal height or gigantism, with acromegaly¹¹—enlarged hands, feet and facial bones, coarse features and an enlarged tongue. Insufficient or hyposecretion of GH in children, by contrast, leads to pituitary dwarfism with adult height being about four feet, but with relatively normal proportions. While research is inconclusive, severe deficit of GH in children has been linked with progeria, where body tissues atrophy and accelerated aging ensues.¹²

Blood sugar as well as fluid content are both closely regulated. Homeostasis, the delicate balance to keep the complexities of the body running smoothly, can easily be disrupted if constant fluctuations and demands are imposed on it. Since GH summons the release of glucose from storage (as glycogen) in the liver and prompts the conversion of some proteins into glucose via gluconeogenesis,¹³ the current societal excess of dietary sugar is a conspicuous culprit in hormone imbalances and its various manifestations.

THYROTROPINS

TRH (thyrotropin-releasing hormone¹⁴) from the hypothalamus stimulates the production and release of TSH by the anterior pituitary. TSH goes via the blood to the thyroid gland, situated in the anterior neck (in front of the throat). TSH then prompts the thyroid gland to

Homeostasis, the delicate balance to keep the complexities of the body running smoothly, can easily be disrupted if constant fluctuations and demands are imposed on it.

In effect,
the body
recognizes
the fact that
if there isn't
enough
selenium to
make the
protective
GSH, there's
no point in
converting
T4 to active
T3 because
the cells can't
respond
anyway.

make and release thyroxine.

Thyroxine or thyroid hormone (also called T4) is made in the thyroid gland from four molecules of iodine added to tyrosine, an amino acid. T4 is what's in Synthroid, but this is the inactive form of thyroid hormone. T4 is conveyed through the bloodstream to cells where it is converted to T3, the active form of thyroxine, to get those cells working.¹⁵ In some ways T4 converted to T3 is like an accelerator: its role is to turn the cell's machinery on. To do that, a specific iodine molecule needs be "chipped" off of the tyrosine template. Under stress, especially elevated cortisol, and other adverse conditions, the "wrong" iodine molecule is removed, leading to rT3, which occupies the site but cannot complete its mission of activating the cells' functions; in other words, it's a dud.

TSH is typically the hormone measured when thyroid problems are suspected, but it is only a small part of the whole picture. Elevated TSH means there is inadequate response from the cells when the thyroid summons T4 and T3 to work harder.

Nutrient deficiencies can underlie inadequate response. Tyrosine can be derived from another amino acid, phenylalanine; one or the other must come from the diet, as the body cannot make them from bodily resources. The net effect is that without phenylalanine or tyrosine, the material from which we generate thyroxine is missing. Adequate protein and robust digestive capacity are both necessary to ensure adequate amounts of this important substance. Vitamin A¹⁶ has a mutual relationship with iodine for generating thyroxine. In addition to iron and iodine, selenium is a necessary mineral cofactor for thyroid hormone synthesis, activation and metabolism. When TSH is elevated and cells still fail to respond sufficiently, it's quite likely that selenium is inadequate.

There's an interesting nexus here. Assuming all other factors are in place, a cell will function as long as it has glutathione, abbreviated GSH, to capture free radicals given off when a cell is actively metabolizing. Glutathione is the body's major antioxidant, the key agent to capture free radicals or ROS—reactive oxygen species. When a cell operates, it gives off ROS. If a cell continues to operate when it doesn't

have enough GSH, the unfettered ROS "sparks" will cause damage to the cell itself, eventually damaging neighboring cells and tissues as well. Selenium is not only the mineral cofactor necessary to convert T4 to its active T3 form. Selenium is also necessary to produce GSH (glutathione). If it doesn't have the necessary GSH, the cell either shifts to "emergency generator mode," so at least it can stumble along until there's enough GSH to keep it up and running, or it undergoes apoptosis. Apoptosis is deliberate cell death, whereby the cell sacrifices itself, dies and lets its parts be recycled for reuse. By taking damaged cells out of function, the tissue can keep operating (assuming the remaining cells have enough GSH) and not "burn the body" down by giving off unhindered free radicals.

The possible nexus here is that if a cell doesn't have enough selenium to make the GSH, it probably also does not have enough selenium to convert T4 to active T3. In effect, the body recognizes that if there isn't enough selenium to make the protective GSH, there's no point in converting T4 to active T3 because the cells can't respond anyway.

In addition, when a cell metabolizes fats (as fatty acids) to generate energy as ATP, the process is much more efficient than using glucose or sugar. It's the difference between generating heat and light from a large log that burns for hours, and depending on scraps and twigs that flash and dissipate in the moment. Fats are also necessary for vitamin A to be absorbed. Again, iodine¹⁷ and vitamin A need each other for optimal absorption and use in thyroxine production. One could speculate that when the body recognizes a situation where it doesn't have all the materials necessary to function well, it doesn't set itself up for a process it can't sustain properly.

A complete discussion of thyroid function warrants volumes. Succinctly, when thyroid dysfunction is suspected, because the thyroid gland is part of a complex web of interacting tissues, the problem is *not* solely in the thyroid. An overall endocrine axis imbalance is highly likely, with autoimmune issues present as well. A complete thyroid panel is necessary to understand where and why the body's homeostatic efforts are bogging down.¹⁸

Additional resources toward understanding the thyroid are listed in the endnotes.¹⁹

CORTICOTROPINS

CRH from the hypothalamus stimulates the anterior pituitary to make and release ACTH (adrenocorticotrophic hormone, also called corticotropin), which goes to the adrenal glands and elicits a response according to need and receptor sensitivity.

The adrenal glands are small caps atop the kidneys, the name deriving from Latin, meaning “of the kidneys.”²⁰ The adrenal glands have two distinct areas to them. The interior area is closely related to the nervous system and is called the adrenal medulla. The outer part of the adrenal glands is the cortex or “crust.” Corticotropins affect the cortex of the adrenal glands.

The adrenal cortex has three layers. The outermost is the zona glomerulosa. This is related to the glomeruli of the kidneys, from the Latin, “little balls of yarn,” referring to the extensive lengths of fine tubing that filter fluid, minerals and other solutes from the blood to generate urine. The zona glomerulosa has to do with regulating electrolyte and fluid balance. While controlled by ACTH (from the anterior pituitary), it lacks the enzymes²¹ necessary to provide the same response that ACTH summons from the other layers of the adrenal cortex. Here, in the zona glomerulosa, and only here, the mineralocorticoid aldosterone, is produced.

Aldosterone prompts the kidneys to retain sodium and excrete potassium. It works in conjunction with the renin angiotensin system and other factors, but the key point is that aldosterone prompts the kidneys to reabsorb sodium. Since water follows salt, aldosterone instructs the kidneys to keep the salt and hence the water, too. This maintains blood volume. Blood pressure depends on both the volume of the blood and the tension of the smooth muscles in the blood vessel walls. A rise in either will increase blood pressure.²²

Secretion of aldosterone is activated in response to ACTH from the anterior pituitary (responding to CRH from the hypothalamus). Elevated or relatively high plasma (blood) potassium (hyperkalemia) and low blood volume are two factors that activate the release of CRH. Maintaining a proper balance of sodium and potassium is crucial to cell membrane response, hence cell function, thus indispensable for life. A lack of sodium (salt) or aldosterone can be fatal, as can an excess of potassium. The body goes through major and multiple efforts to maintain proper sodium and fluid balance. Both ADH from the hypothalamus and aldosterone from

the adrenal’s outer layer, the zona glomerulosa, along with the renin angiotensin system in the kidneys, are constantly active to regulate electrolyte balance.

Licorice (*Glycyrrhiza glabra*, *Glycyrrhiza uralensis*) is often recommended for people with apparent adrenal issues. While licorice root can lengthen the time it takes the body to break down cortisol, it can also increase aldosterone levels so much as to severely disrupt the balance of sodium and potassium if ingested in excess.²³

Historically, adequate access to salt, along with water, has been a driving force in civilization’s settlements and battles. Excess salt intake is easily avoided by not consuming processed packaged “foods of commerce.” An overall vitality-promoting balance of sodium, potassium and other

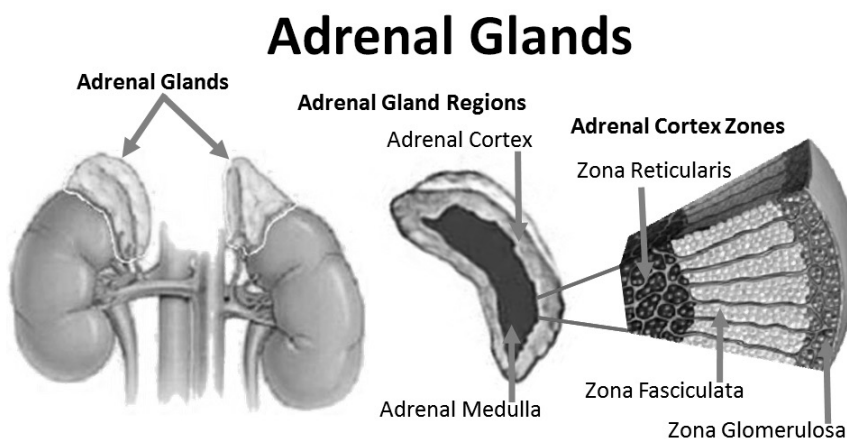
minerals is best obtained through nutrient-dense foods grown in mineral-rich and microbe-rich healthy soil, adding salt to taste as a conscious act.

Symptoms of low aldosterone include:

- Craving salt
- Fluid retention in the arms and legs
- Pupils not staying constricted when exposed to light
- Rough or sandpaper tongue
- Excessive urination up to fifteen or twenty times per day
- Excessive sweating even without activity.

People who crave chips and pretzels, who douse everything with salt, are prime suspects for adrenal problems and HPA or endocrine disruption in general.

The next two layers of the adrenal cortex, the zona fasciculata and zona reticularis, are regulated by ACTH from the anterior pituitary. The zona fasciculata secretes glucocorticoids—essentially cortisol—and the innermost zona



reticularis secretes DHEA, androgens and estrogens—the sex hormones. Which hormone is activated depends on the nature of the enzymes present in the particular zone and the presence of other ancillary synergistic agents. In other words, it's not a simple linear system, but one of complex cooperation and interaction.

All adrenal cortical hormones are generated from cholesterol. The adrenal cortex contains the highest concentration of cholesterol outside the nervous system. The brain is 70 percent lipids, including cholesterol. The adrenal cortex uses cholesterol to synthesize aldosterone, cortisol and DHEA, from which the sex hormones are made.

Cholesterol is so important to health that all tissues of the body²⁴ are capable of generating it. When serum cholesterol is low, the body is severely limited in its capacity to repair and

renew itself. Limiting dietary cholesterol intake is futile, since the body will make as much cholesterol as it needs. Conversely, vegetarians or vegans, who argue that consuming cholesterol is not necessary, overlook the metabolic expense to the body of making cholesterol. Resources devoted to generating cholesterol are not available for other important roles, and health suffers. Low serum cholesterol is associated with cancer, depression and suicidal and homicidal tendencies. Dr. Price's accounts of South Sea highland vegetarian groups cannibalizing their seacoast neighbors if denied access to seafood illustrate this important point.

Cortisol is the major hormone secreted by the adrenal cortex, in a diurnal rhythm. Cortisol levels are highest in the morning, lowest at night, unless the endocrine axis is out of balance, as is the common case of "awake all night and sleepy all day." Cortisol (hydrocortisone) is a glucocorticoid, meaning a cholesterol molecule enhanced with particular sugar²⁵ molecules, and is crucial for life. Apparently all cells have glucocorticoid receptors, and thus can be activated by cortisol or a derivative to one extent or another.

Yes, cortisol is crucial for life. Its primary role is to ensure blood sugar stability, that is, a reliable energy supply so cells can carry out their

SYMPTOMS OF ADRENAL DYSFUNCTION

- **FATIGUE:** Cells aren't getting reliable support for their function.
- **SUGAR AND SALT CRAVINGS:** "Maybe eating this will give my cells what they are craving!"
- **CAFFEINE AND NICOTINE ADDICTIONS:** "Please help my body wake up, function, settle down—argh!"
- **SLOW MORNING START:** "Where's my coffee?" Sleep time is intended to afford reflection, putting things in order. Get to bed earlier for more effective renewal and restoration.
- **LATE AFTERNOON CRASH:** "Sweets and cola, or that good old Mountain Dew."
- **BETWEEN-MEAL EATING:** Fat sustains; carbs, especially when refined, tantalize.
- **DIZZINESS:** According to traditional Chinese medicine, dizziness occurs when the liver is overworked, possibly a reflection of chaotic blood sugar fluctuations.
- **HEADACHES:** The liver isn't caught up with cleanup from before, so now there are leftovers and clutter to deal with. One interpretation of migraines is that they are spasms due to irregular blood supply to brain tissues.
- **ALLERGIES AND ASTHMA:** No resources left to deal with strange substances, so just shoo them out as best you can by gasping, coughing, sneezing, sniffing.
- **WEAKENED IMMUNE SYSTEM:** Too much for the body to deal with; lost track of which "other" substance is helping and which is likely to cause problems.
- **INSOMNIA:** Can't fall asleep or can't stay asleep. Inflammatory reactions spread throughout the body when something is awry.
- **DIGESTIVE ISSUES SUCH AS BLOATING AND GAS:** At least 70 percent of the immune system is in the gut. If preoccupied with external stimuli, bodily resources just aren't there to process anything else.
- **ULCERS:** Even fewer resources are available to balance gut microbes and repair tissues.
- **IRRITABILITY:** Nerve cells drag or simply quit if they don't have needed support (such as a consistent fuel supply as steady blood sugar or fats and their derivatives).
- **BLURRED VISION:** Another indication of irregular and erratic blood delivery of fuel and oxygen.
- **MENSTRUAL IRREGULARITIES:** Bodily self-preservation takes priority over providing for the next generation.
- **GRUMPY-OLD-MAN SYNDROME:** Sometimes called male menopause. The priority of self-preservation over providing for others isn't gender-specific.

specific roles. Cortisol summons stored glucose from glycogen stored in the liver and muscles; at the same time it prevents muscle and adipose tissue from taking up glucose, sparing it for use by the brain and heart.

Even before birth, cortisol is necessary. It provides for the maturation of the surfactant of lungs in fetal development; without it, the newborn infant ends up in respiratory distress. Glucocorticoids, represented here by cortisol, have potent anti-inflammatory and immunosuppressive properties, and thus are widely used for (temporary) relief of arthritis, dermatitis (eczema and rashes) and autoimmune diseases.

Mental, emotional and physical stress are all registered by the hypothalamus, which then informs the anterior pituitary to awaken the adrenal glands to rouse the particular tissues to action. Stress leads to breakdown of bodily tissues for use as fuel, specifically tissues that are high in collagen, since its main component amino acid, glycine, is readily converted to glucose. The effect is consumption of resources which ideally should be available for self-restoration. Instead those resources are directed to deal with external stimuli, resulting in joint deterioration and loss of collagen bone matrix, precursors to osteoporosis.

The most obvious effects of chronically elevated cortisol are disrupted carbohydrate metabolism—blood sugar imbalance—and impaired immune function. Both engender chronic inflammation, the perfect setup for metabolic syndrome. Metabolic syndrome generally manifests as cardiovascular disease and diabetes, the two biggest health problems in modern western society.

Indicators of adrenal dysfunction, affected by cortisol imbalance, with commentary, are shown on page 20. Please note that many health issues that are attributed to adrenal dysfunction are really whole body imbalances. The hormones of the endocrine system are merely the messengers.

In addition to containing the richest store of cholesterol in the body, the adrenal glands hold the highest concentration of vitamin C complex. The indigenous folk of northern Canada knew this and shared the information with Dr. Price because he, unlike other white men they had

encountered, did not “know too much to ask the Indian.”²⁶

Nutrients that support adrenal function thus include cholesterol-rich foods such as eggs, especially their yolks, from both fish and fowl; liver and adrenal glands; and full-fat dairy such as cream, butter and cheese. In addition, foods rich in vitamin C complex²⁷ are important and are found in deeply colored fruits and vegetables, particularly the dark colored fruits of summer. Their antioxidant qualities protect from the intense oxidizing properties of the sun.

GONADOTROPHINS

Gonadotrophic-releasing hormone (GnRH) from the hypothalamus stimulates the anterior pituitary to generate follicle-stimulating hormone (FSH), followed by luteinizing hormone (LH). These travel to the gonads—the reproductive organs in both men and women. FSH stimulates the production of estrogen and follicular development in the ovaries of women. LH then activates the release of the ovum as well as stimulating the production of progesterone—optimistic that the ovum (single egg) will be fertilized and need the differentiating and protective qualities of progesterone. The actions of FSH and LH are coordinated with the ebb and flow of estrogen(s) and progesterone in women’s menstrual cycles.

In men, FSH stimulates the development of spermatozoa,²⁸ and LH stimulates the secretion of testosterone. Testosterone works in concert with FSH to complete spermatogenesis, the maturation of sperm. Testosterone also provides for the development of male secondary sex characteristics such as deepening of the voice, facial hair and increased muscle mass.

In addition to production in the ovaries and testes, respectively, the sex hormones are produced in the third, innermost layer of the adrenal cortex, the zona reticularis. Succinctly, DHEA is a cholesterol-based hormone from which androgens and estrogens are produced. DHEA also has a permissive effect. That is, its presence facilitates the production of neurotransmitters, which affect memory and mood. Neurotransmitter imbalances are more likely to occur when DHEA levels are less than optimal. Also, when DHEA is low, which happens after

Even before birth, cortisol is necessary. It provides for the maturation of the surfactant of lungs in fetal development; without it, the newborn infant ends up in respiratory distress.

long bouts of chronic stress, overall resilience and immune response are compromised, and senescence is accelerated.

Androgens comprise androstenedione, testosterone, and its various derivatives such as DHT (dihydrotestosterone, which plays a role in male pattern baldness). Estrogen has at least three forms: estrone, estradiol and estriol. As noted above, each of these has particular functions both in reproduction as well as in day-to-day maintenance of the physical structure—all the changes across the lifetime journey.

Both men and women have some of each of the three major sex hormones²⁹ (and their derivatives, not covered here), in gender-appropriate proportions. Testosterone supports libido and is especially important for maintenance of all types of muscle tissue: skeletal, smooth (lining arteries and glands) and cardiac. Increased risk of cardiac failure (heart attack) occurs with insufficient testosterone. Statin drugs interfere with the production of cholesterol, the key substrate from which testosterone is produced. It should be no surprise that muscle pain (myalgia), weakness (myopathy), and dissolution of tissue (rhabdomyolysis—tissue turning to “jelly”) are well-known side effects of taking statins.

LACTOTROPHINS

In response to GnRH from the hypothalamus, and in conjunction with relatively higher estrogen levels, the anterior pituitary generates and secretes prolactin. Prolactin (PRL) (“for milk” in Latin) activates mammary (breast) tissue to promote milk production; in general it affects reproductive and immune tissue. By itself it has a very weak effect, which makes sense because there is a sequence and relationship among the above hormones. Oral contraceptives, opiates and breastfeeding also all stimulate the release of PRL. In excess, it can be a causative factor in premenstrual breast tenderness. Elevated levels of prolactin may cause amenorrhea—lack of menstrual cycles—appropriate when a woman is nursing a baby, but an indicator of endocrine imbalance when birth and breastfeeding are not in the picture. In men, elevated prolactin is consistent with erectile dysfunction. PRL is inhibited by PIH (prolactin inhibitory hormone, from the hypothalamus),

which again makes sense. PIH is dopamine, the get-up-and-go hormone and neurotransmitter. It’s difficult to tend the baby and the home fires when hormones are telling us to go slay dragons or embark on major external efforts.

MELANOCYTE-STIMULATING HORMONE

MSH stimulates the pineal gland to synthesize melanin. Melanin is pigment that gives color to the skin and relates to light exposure with respect to the sun and attunement to the diurnal and seasonal rhythms of light and darkness.

PATTERNS AND CONNECTIONS

It’s easy for a description of the hormones to become massive and overwhelming. Amidst the long, strange, unpronounceable words and complex descriptions, there is actually a pattern to the hormones of the endocrine axis.

GH (growth hormone) enlists IGF (and other substances) to build the physical substance.

TSH (thyroid-stimulating hormone) notifies the thyroid gland to dispatch thyroxine to activate the physical substance, the cells constituting the various component tissues and organs, in effect “turning it on” and in some cases “up.”

Corticotrophs provide support to sustain the organism’s efforts, specifically by ensuring appropriate balance of fluids, minerals and fuel.

Thus established, the organism lines up its successor, making provision for the next generation. FSH and LH prepare the seed and aid its ripening. Prolactin provides nourishment.

Melanocyte-stimulating hormone (MSH) relates back to the top gland of the entire endocrine axis, the pineal gland, furnishing a link with the cosmos beyond the present corporeal and earthly existence. One could say that a living being, having established itself and its offspring on the earth, aligns via MSH and the pineal gland to establish a more extensive connection with the cosmos.


As MSH establishes a connection with the greater cosmos via the pineal gland, it then winds its way through the complexities and subtle distinctions of the endocrine axis to the lowest and “earthiest” set of glands, the gonads, affording humans a role as bridge between the grand scale of existence and the earth. In short, our endocrine system creates a bridge between two worlds.

MOTHER NATURE OBEYED

There is an electromagnetic force between the earth’s surface and the ionosphere, the densest part of earth’s atmosphere, called the Schumann Resonance.³⁰ The Schumann Resonance corresponds to that of alpha brain waves, which resonate at 7.83 Hz, and is said to correspond also to optimal function of the endocrine axis. The Vedic chanting of Om is said to reinforce this frequency, and with it one’s harmonious alignment within oneself (comfortable homeostasis) as well as with the cosmos beyond and the earth beneath our feet.

Obedying Mother Nature entails living with the rhythms and patterns

of the earth as a component of a greater cosmic system. My personal take on the adrenals in particular is that their primary role is to allot bodily resources toward self-preservation. In a balanced system, energies are distributed according to the old sailor's tradition: one hand for the sailor, one hand for the ship. If a person is constantly on the go, expending attention and energy outwardly, responding to external stimuli, and constantly dealing with external stressors and demands, few resources are available to keep one's internal relationships in harmonious order. The "hand for the sailor" is sacrificed to two hands for the ship and none for the sailor, exhausting the individual with the consequence of lost support for the "ship" or greater endeavor. Adrenal fatigue (or exhaustion or distress) is a sign of overall endocrine dysfunction. Just as humans tend not to thrive in isolation, the tissues and organs of their bodies neither exist nor function in isolation. It is all connected.

A healthy, whole and happy human being is connected with himself or herself through a smoothly flowing endocrine system. That in turn affords vibrant connection with community, as well as via the bridge from cosmos to earth. Resources are balanced between self and the outer world, between "the sailor and the ship." While adequate nourishment is fundamental to optimal function, living consciously with the world around is also important. One of the best things a person can do to keep one's endocrine axis flowing smoothly, affording energy for both "the sailor and the ship," is to take time to rest, relax, be with friends, enjoy the arts, and above all, play. 

Karen Lyke, MS, CCN, DSc, CGP has been studying the effects of food on human health ever since she was anorexic as a teenager. Her academic credentials include an MS in human nutrition, board certification as a clinical nutritionist (CCN), and a doctorate based on a study of the effects of oxalates in soy-based foodstuffs on human health. A Waldorf school graduate and certified in therapeutic massage, Karen has taught anatomy and physiology, as well as nutrition, to students of massage therapy, acupuncture and holistic health. She teaches online with Hawthorn University and is a certified GAPS practitioner. A lifelong organic gardener, Karen and her husband now cultivate a nutrient-dense, pesticide- and GMO-free garden, with a few backyard chickens and ducks, in northwest Ohio.

REFERENCES

- Bayne, Kim. (2016) Your 7 Chakras & the endocrine system. Retrieved 2017-11-19 from <http://blog.thewellnessuniverse.com/your-7-chakras-the-endocrine-system/>.
- Glands are small sacks of smooth muscle lined with secretory cells. They release their contents upon specific stimulation, as messengers to themselves (autocrine), neighboring cells (paracrine), to the bloodstream in general (endocrine), or through ducts to another organ, such as pancreatic enzymes to the lumen of the small intestine.
- LeRoux, Maude, and O'Malley, Lauren. (2012) *Our Greatest Allies: Respect, Relationship and Intervention ... A Child's Journey*. Fort Collins, CO: A Book's Mind.
- Cells are the basic unit of life. Many similar cells constitute a tissue. Several tissues, each of several different types of many cells, make up an organ. The several tissues constituting an organ all support a common purpose or role in the overall system of the organism or living body.
- Tortora & Derrickson (2009) *Anatomy and Physiology*, 12th edition. John Wiley & Sons, Inc., p 651.
- Fascia is the connective tissue enveloping the entire body and all of its organs: smooth and skeletal muscles, the viscera (heart, lungs, kidneys, pancreas, spleen, intestines) and the bones. The fascia attaches to the outer and inner surfaces of the skull, including the meninges, the protective tissues surrounding the brain. Irregularities in the fascia can occur from various causes, including postural habits based on emotional responses or physical behaviors, and tend to be subtle. It is quite possible that the meridians of energy (chi) flow of Traditional Chinese Medicine (TCM) are a reflection of pathways in the fascia. Releasing the various contractions of the fascia through myofascial release, cranio-sacral therapy, or structural integration (aka Rolfing) massage techniques has a distinct effect on a person's emotional and physical well-being, indeed "changing one's body about one's mind." Because of the pituitary's location and these connections, such bodywork can be very beneficial toward restoring or optimizing endocrine axis function.
- Price, Weston A. (2016) *Nutrition and Physical Degeneration 8th Edition* 23rd Printing. Lemon Grove, CA: Price Pottenger, pp 304-305; 331.
- Amino acids are the building blocks from which proteins are constructed, or synthesized.
- Tortora & Derrickson (2009) *Anatomy and Physiology 12th edition* John Wiley & Sons, Inc., p 653.
- Somatostatin from Latin: soma – body, and stat – halt or status; as in static, not moving.
- Acro = end or tip; mega = big, from the Latin.
- Marieb, E. (1995) *Human Anatomy and Physiology* 3rd Edition. Redwood City CA: Benjamin Cummings, p 557.
- Glucose=sugar; neo=new; genesis=generation/production.
- TRH also stimulates the release of prolactin (PRL) and might serve in addition as a neurotransmitter (via the nervous system, in contrast to travelling through the blood) in regulating wakefulness and loss of appetite.
- As cells "work" they perform their specific functions as well as give off heat. Thus T3 stimulates both metabolic functions as well as generation of heat. Someone with an overactive thyroid gland is likely to feel warm all the time. Conversely, someone with an underactive thyroid probably constantly feels cold.
- Vitamin A is a fat soluble retinoid nutrient, not the same as water soluble β -carotene. Retinoid vitamin A can be derived from β -carotene through a long, metabolically expensive process. Conventionally, according to the USDA, vitamin A and β -carotene are deemed to be interchangeable, but that is not a valid premise.
- The usual recommendation for daily intake of iodine is a mere 150 micrograms. This is in contrast to a recommendation of daily adequate intake (AI) of 0.25 mg for infants, 3-4 mg/day for adults or at least 200 times the amount of iodine. Fluorine is highly toxic specifically to reactions in glycolysis and the citric acid cycle, both crucial metabolic pathways. It is a much more reactive element than iodine, and easily displaces iodine. Without adequate iodine, the thyroid is lost and the rest of the body simply cannot function. In addition to fluorine displacing iodine, bromine is another halide element that displaces iodine and can thus interfere with iodine and thyroid function. Consuming fish and shellfish, along with sea vegetables such as kelp, nori, dulse, digitata, etc. is one of the best ways to ensure adequate iodine intake. For clarity, fluoride (iodide, bromide, chloride, etc.) is the negatively charged ion; fluorine, iodine, bromine, etc. designates the isolated element unbound to anything else, and without an electrical charge, but most eager to find a "partner" for its one unpaired electron.
- A complete thyroid panel includes:
TSH – Thyroid-stimulating hormone

TT4 – Total thyroxine, both free and bound
 FTI – Free thyroxine index
 FT4 – Free thyroxine
 Resin T3 uptake
 Free T3 – free triiodothyronine
 r T3 – Reverse T3

When stress is high, the “wrong” iodine is removed, leaving a non-functional rT3, in effect another of the body’s protective measures.

TBG – Thyroid binding globulin

Thyroid Antibodies:

TPO-Ab – Thyroid peroxidase antibodies

TGB-Ab – Thyroglobulin antibodies

Thyroglobulin is the predominant protein in the thyroid gland, and in effect stores both thyroxine and iodine.

19. For further information, see accessible and comprehensive resources on thyroid issues by Datis Kharrazian DHSc, DC; Izabella Wentz PharmD; and Nikolas Hedberg DC.
20. Adrenalin is synonymous with epinephrine. Adrenalin is from the Latin; epinephrine is from the Greek. Epi = above, on top of (apex); nephro = kidney, as in nephron, the functional unit of the kidneys.
21. The zona glomerulosa lacks the enzyme 17- α hydroxylase, which is necessary to synthesize cortisol, androgens, or estrogens. Only the conversion of corticosterone to aldosterone can occur in the zona glomerulosa. Farese, et al. Licorice-Induced Hypermineralocorticoidism (1991) *N Engl J Med* 1991; 325:1223-1227.
22. Blood volume, peripheral resistance, and cardiac output are the key factors affecting blood pressure. Smooth muscles line the blood vessels; their contraction increases peripheral resistance. Marieb, pp 650-660.
23. Farese, et al. Licorice-Induced Hypermineralocorticoidism (1991) *N Engl J Med* 1991; 325:1223-1227.
24. The liver generates most of the cholesterol needed by the body, delivering it via LDL carrier molecules in the blood throughout the body. RBCs (red blood cells) lose their mitochondria when they mature. That loss gives them their indented center or squashed shape, and removes their capacity to generate cholesterol.
25. The word sugar commonly refers to white table sugar, sucrose, which is a combination of fructose and glucose. There are many forms of sugar, each a combination of carbon (O), hydrogen (H), and oxygen (O) atoms. They differ by position of at least one O or OH. Position of component atoms determines the structure of a molecule and its function. Specific sugars attached to proteins, fats or cholesterol facilitate functions and biochemical processes unique to that combination.
26. Price, W. A. (2016) *Nutrition and Physical Degeneration, 8th Edition*, 23rd Printing. Lemon Grove, CA: Price Pottenger, p 69.
27. Vitamin C was discovered in 1912; Albert Szent-Györgi and Walter Norman Haworth received the Nobel Prize for it in 1937. Although Szent-Györgi recognized that it comprised a complex of molecules, political forces insisted it be compressed to ascorbic acid. Common convention thus equates vitamin C with ascorbic acid, while those more attentive to subtle differences recognize vitamin C as a complex of synergistic substances.
28. Spermatozoa are the generative cells produced by men, a single such cell being a spermatozoon. Sperm is the collective term for the spermatozoa, fluid and other substances conveyed in semen.
29. The three key sex hormones are: estrogen – which promotes growth, or “assembly of the basic building materials”; progesterone – calling for differentiation and function-specific application of the assembled building materials; testosterone – supporting muscle function, strength and maintenance. These have to do not only with reproduction of the next generation, but with maintaining the present physical body as well. There are 3 (or more) forms of estrogen and several forms of testosterone. Progestin, used in pharmaceutical products such as contraceptives, is a patentable laboratory substance, alleged to be akin to progesterone. While commonly conflated with, and used interchangeably as a term referring to progesterone, progestin is not progesterone.
30. <https://www.heartmath.org/gci-commentaries/influence-of-geomagnetism-and-schumann-resonances-on-human-health-and-behavior/>

POPULAR SPEAKERS AT WISE TRADITIONS 2017



Karen Lyke, MS, CCN, DSc, CGP, gave us excellent background on the HPA axis as a prelude to the other talks on hormone health.



Reginaldo Haslett-Marroquin presented fascinating information on natural chicken production in their home environment—jungle, forest and orchard.



Amy Berger, author of *The Alzheimer's Antidote*, spoke to a full house on how a high-fat diet can ward off the disease.

A Primer on the Thyroid

By Ronda Nelson, PhD

The thyroid is part of a network of glands known as the endocrine system. The word “endocrine” refers specifically to glands that release hormones or other products directly into the bloodstream. These hormones are able to move throughout the body, effecting physiologic change at their intended destinations. Much like a finely crafted Swiss watch, the glands and hormones of the endocrine system help our bodies keep perfect time and remain healthy.

Early in the twentieth century, researchers knew that the hormones produced by the endocrine glands conferred a profound effect on the human body. Essentially, every organ, tissue, system and subsequent physiological reaction throughout the body was under their influence. In 1922, Dr. Henry Harrower published an extensive eighty-page monograph detailing the function and interrelations seen within the endocrine system. Prior to Dr. Harrower’s publication, scientists of the day had only suspicions about how the thyroid functioned, so his observations provided a cohesive report that garnered much attention from the medical community.

One of the most controversial and largely unaccepted observations Harrower made concerned the dynamic interplay between the glands. He believed that if one gland was dysfunctional, the rest of the endocrine system would be in a state of disequilibrium, thereby causing physical dysfunction. Harrower stated, “All [the endocrine glands] are so closely bound to each other that a disturbance in one will throw out of gear or out of action all of the others.”

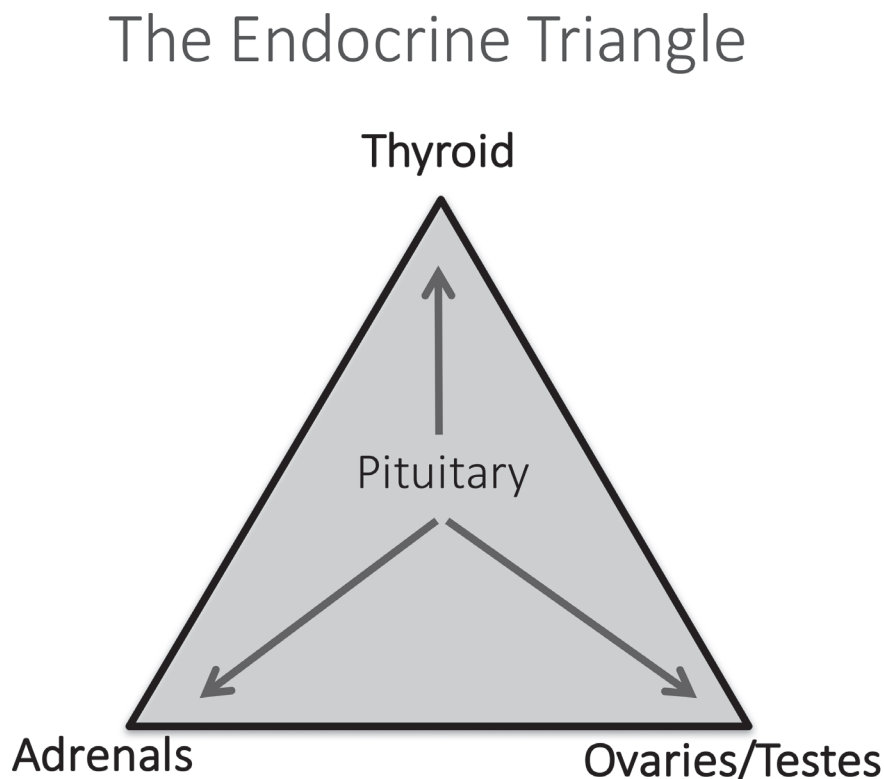
Of all of the endocrine glands, the thyroid gets blamed for most of the dysfunctions we see today. In most cases, the thyroid is merely an innocent bystander, part of a larger system that has become dysfunctional. The presenting symptoms may point to the thyroid, but they can just as easily point to an adrenal insufficiency, blood sugar dysregulation or ovarian dysfunction. If you visit your doctor complaining of fatigue, anxiety, excess weight, infertility and constipation you’ll most likely walk out with a prescription for thyroid hormone replacement without any consideration of the real underlying issues. Sadly, in most cases, the thyroid is not the actual problem.

THE ENDOCRINE TRIANGLE

There are four primary endocrine glands: the adrenals, gonads (ovaries/testes), thyroid and pituitary. Although each of their respective hormones has unique roles in the body, the adrenals, gonads and thyroid are highly dependent on one another. Receiving its orders from the hypothalamus, the pituitary gland is the conductor or orchestrator of the glands, instructing them when action needs to be taken (see The Endocrine Triangle below). Its chief function is to link the hypothalamus and the nervous system to the rest of the body. The pituitary is on constant alert, monitoring the body and trying to maintain balance and homeostasis.

One of the hormones produced by the pituitary is known as thyroid-stimulating hormone (TSH). As the name implies, TSH signals the thyroid to produce more thyroid hormone, namely, T4 (thyroxine) and T3 (triiodothyronine). When thyroid hormone levels begin to fall, the pituitary is alerted and promptly sends a signal to the thyroid, asking for more thyroid hormone. This is known as a negative feedback loop.

Although TSH is most commonly known as the “thyroid hormone,” it really isn’t a thyroid hormone at all. It is, in fact, a pituitary hormone, and as such, should never be used as a sole indicator of thyroid health. There are a number of other, more effective markers that practitioners can and should use when evaluating the thyroid. But before examining those, it is important to understand how the thyroid works and why these markers will be useful in conducting effective evaluations.



© 2017 Ronda L. Nelson, PhD, MH. All Rights Reserved.

THYROID INNER WORKINGS

The thyroid gland contains thousands of spherical structures known as follicles. Each of these follicles contains a reservoir of thyroid hormones, much like a swimming pool contains water. This readily available supply ensures that there is always sufficient hormone availability when TSH sends the signal, via the pituitary, that more hormones are needed.

The predominant thyroid hormone is T4. It is made up of four molecules of iodine and comprises 95 percent of the hormone produced by the thyroid. It is largely inactive and requires additional steps to be converted into the active hormone, T3. Because the thyroid requires so much iodine, it will hoard as much as possible, ensuring there is an adequate supply for continued production.

T3 is the star player of the thyroid hormone family. Although very little—less than 5 percent—is actually produced in the thyroid, T3 is responsible for most of the benefits associated with optimal thyroid health. Instead of four iodine molecules (as seen in T4), there are only three. The extra iodine molecule is cleaved off during the conversion process from T4 to T3 in either the liver, gut or peripheral tissues. Without this crucial step, adequate T3 will not be available to the cells to help stimulate the functions of growth, reproduction and metabolism.

TRIP WIRES

As with any other system in the body, there are particular triggers or events that can cause dysfunction to occur; not surprisingly, the thyroid is no exception. The gears and inner workings of the thyroid gland are sensitive to a number of external influences, all of which have the potential to prevent it from properly functioning. Lack of adequate nutrients is one such trigger.

Iodine, for example, is such an important part of our health that adequate dietary intake is crucial for optimal health. In order for iodine to be used to create thyroid hormones and have a positive impact on other body tissues, certain nutrients need to be readily available to facilitate its action. These include vitamins A, B, C and D; fatty acids; iron; magnesium; and, most importantly, selenium. When these

important nutrients are missing, iodine cannot be adequately utilized, and the result is a decrease in T4 and/or T3.

In addition to raw nutrient deficiencies, there are other factors that can interfere with thyroid hormone production and usage. These can include excessive intake of cruciferous vegetables (such as cabbage, Brussels sprouts, broccoli, cauliflower and kale); consumption of soy foods; chemical pollutants including polychlorinated bisphenols (PCBs), persistent organic pollutants (POPs), phthalates, flame retardants and dioxins; and halogen exposure (bromine, chlorine and fluorine). Each of these has been shown to negatively impact the thyroid hormones' abilities to reach their intended destination and do their job at the cellular level. These types of chemical interferences can cause symptoms pointing to obvious thyroid dysfunction, yet blood tests can appear perfectly normal.

CONVERTING T4 TO T3

The process of converting T4 to T3 is quite complex and occurs in sites outside the thyroid gland. For this conversion to take place, it is especially important that the key nutrients mentioned earlier be present. The two primary sites where conversion takes place are the liver (60 percent) and the gut (20 percent). The remaining T4-to-T3 conversion occurs in various sites in the body referred to as "peripheral tissues." This symphony of conversions provides readily available thyroid hormones throughout the body.

Conversion can be hampered by impaired nutritional status, liver dysfunction, insufficient digestion or a disordered gut. Still, there is one dysfunction that trumps them all: stress and the prolonged production of cortisol.

THE ROLE OF THE ADRENAL GLANDS

The adrenal glands are part of the endocrine triangle and strongly influence the function of the thyroid. When life stress is either prolonged or excessive, the adrenals release the hormone cortisol to try to keep stress under control.

Excessive amounts of cortisol can block thyroid hormone production, resulting in decreased levels of T3 (triiodothyronine) in the bloodstream. When this occurs, the pituitary gets the signal that there isn't enough hormone

In most cases, the thyroid is merely an innocent bystander, part of a larger system that has become dysfunctional.

Because of the close relationship between the adrenal glands and the ovaries or testes, a dysfunction in one will lead to a dysfunction in the other.

and triggers the thyroid to produce more TSH. This begins a cycle of dysfunction within the endocrine triangle, causing a wide array of symptoms coming from any or all of the glands.

Because of the close relationship between the adrenal glands and the ovaries or testes (both produce steroid hormones, which are made from cholesterol), a dysfunction in one will lead to a dysfunction in the other. Soon, hormone imbalances begin to occur, which can further impact thyroid hormone conversion and utilization downstream. Common symptoms include premenstrual syndrome (PMS), irritability or heavy bleeding in women, along with a general loss of tolerance for noise, stress or disorder in both sexes. Men can also experience decreased libido, erectile dysfunction or generalized apathy.

THE SMOKING GUN

One of the most common causes of disordered thyroid hormones is the use of or exposure to bioidentical hormones or other hormone-like substances. These can be found in prescription or over-the-counter hormones, birth control pills and IUDs or even in testosterone used by men. When used for longer than two to three months, these hormones can impair the movement or transportation and usage of thyroid hormones in the body. Furthermore, these hormones are easily transferred from one person to another, be it parent-to-child or husband-to-wife. This is commonly known as “passive transfer” and occurs most readily when hormones or hormone-containing products are applied directly to the skin. After two to three months of usage, these hormones will begin to “spill out” via sweat glands on the skin, activating passive transference to whomever gets touched.

Aside from prescription hormones, bioidentical hormones or other hormone-like substances are often found hiding in skin and body care products. Many manufacturers are keen to the fact that estrogen causes the skin to look and feel softer and more youthful. In order to keep customers coming back, they will add small amounts of estrogen or estrogen-like compounds to their products to obtain the desired effect. This type of product can be treacherous to someone dealing with a thyroid problem, because they are likely to be completely unaware of the fact

that their body lotion, face cream or aftershave lotion contains hormones that interfere with the delicate rhythm of the endocrine system.

SOLUTION TO THE PROBLEM

It may sound complicated and perhaps even overwhelming at first, but ultimately, there are five key principles to consider when trying to support the thyroid. These involve supporting healthy digestion, liver function, adrenal function, diet and the gut.

1. *Support digestion and breakdown of food in the stomach.* This will pave the way for efficient and thorough absorption later on along the digestive tract. Support should include digestive bitters, foods and herbs to support healthy bile flow and production, and sufficient pancreatic enzymes to ensure optimal breakdown of food before it enters the middle to lower small intestine.
2. *Support healthy liver function.* This is an important part of healing the thyroid, given that 60 percent of T4-to-T3 conversion occurs in the liver. Herbs that help support a healthy liver include silymarin (the therapeutic component of milk thistle) and schisandra, along with cruciferous vegetables, onions and garlic.
3. *Support healthy adrenal function and manage lifestyle stress.* This is a foundational step that should be considered for almost everyone, regardless of whether thyroid dysfunction is present. Prolonged elevations of cortisol have a profoundly negative effect on T4-to-T3 conversion that will continue until the stressors have improved and/or the adrenal glands become more capable of managing the stress. Herbs to consider include ashwagandha, rehmannia, eleuthero, rhodiola and Korean ginseng.
4. *Maintain a diet free from processed foods and chemicals.* These will not only cause nutrient depletions but can contribute to alterations in metabolism, weight gain, fatigue and increased risk of gastrointestinal disorders. Be sure to include foods rich in fiber to help

improve overall gut health and regular elimination.

5. *Support a healthy gut.* The digestive tract, especially the large intestine, is home to billions of microbes that play a significant role in human health. It is vitally important to ensure these organisms are well cared for and are in a harmonious relationship with one another. Much like a garden, some of them can overgrow, creating a less-than-optimal environment, leading to intestinal dysbiosis or leaky gut.

PROPER TESTING

Insurance restrictions prevent many health care providers from ordering thorough blood panels to evaluate for thyroid dysfunction. The most common marker ordered is TSH which, as previously mentioned, is not actually a thyroid hormone. In order to better understand whether there is truly a dysfunction within the thyroid gland itself, the right markers must be evaluated in context with one another. Without a complete picture, a misdiagnosis is much more likely to happen, resulting in unnecessary and often unhelpful medications.


To minimize these risks, it is imperative to consider seven serum markers that can indicate and make it possible to examine suspected thyroid dysfunction: TSH, total T4, total T3, reverse T3, T3 uptake, TPO and TGB (see sidebar below).

CONCLUSIONS

Although thyroid dysfunction has many causes, it can be corrected over time with the right information and plenty of patience. Thyroid hormones may be needed in some cases, but taking time to test thoroughly and evaluate for underlying causes can make a significant difference in

the intended health outcome.

Start by incorporating the five foundational tenets mentioned above, and find a practitioner who is well versed in thyroid issues. This person should be able to listen to your goals and needs, working with you rather than just talking at you.

The good news is that a possible thyroid issue doesn't have to keep you from living your best life. Be your own advocate, ask questions and maintain a steady commitment to maximizing your health. 

Dr. Ronda Nelson holds a PhD in holistic nutrition along with a master's degree in herbal medicine. Her passion lies in helping others regain their health through dietary modifications and herbal and nutritional support. Dr. Nelson enjoys working with difficult digestive and endocrine-related cases, helping men and women reach their health potential as quickly as possible. She recently transitioned to a virtual-only practice which allows her to work from her Seattle home. Dr. Nelson has gained the respect of patients and doctors alike, providing relevant clinical information both online and at her sold-out educational seminars across the country.

SERUM MARKERS TO TEST FOR THYROID DYSFUNCTION

TSH: Although not a thyroid hormone, this pituitary hormone can provide some insight about what might be happening with the feedback between the body and the brain. This marker can vary though. It should not, therefore, be used as a concrete marker for thyroid dysfunction.

TOTAL T4: This marker provides information about how much T4 the thyroid is producing. If total T4 is on the low end of normal, it can indicate a need for iodine and/or selenium.

TOTAL T3: The reference range for this marker is much larger than T4 because of the amount converted into T3. Lower levels may indicate a need for liver and gut support in order to improve T4-to-T3 conversion.

REVERSE T3: This is a useful marker to rule out stress as a contributing factor to thyroid dysfunction. If low, consider general adrenal support and focus on improving overall liver function.

T3 UPTAKE: When elevated, this marker can indicate a possible passive exposure to testosterone. If low, consider the possibility of estrogen exposure.

TPO: One of two thyroid antibodies, this serum marker is commonly positive with the presence of Hashimoto's thyroiditis.

TGB: This thyroid antibody is not positive as often as TPO. However, it can be significantly elevated with Graves' Disease.

Recovery from Bioidentical Hormones

By Kim Schuette, CN

When you think of hormonal symptoms, what comes to mind? Anxiety, mood swings, fatigue, hot flashes and night sweats? Sleepless nights? For many, the obvious remedy is often bioidentical hormone replacement treatment (BHRT). This strategy assumes, of course, that you have diminished levels of one or more hormones. It is important initially for your practitioner to determine whether the symptoms being expressed are the result of deficiency or excess. Low or high levels of any hormone create symptoms.

Let's say that tests have determined that a hormonal imbalance exists and that BHRT support may help. Sure enough, BHRT helps reduce or eliminate the symptoms you were experiencing. So, at first thought, you may be thinking "What's to recover from? Aren't bioidentical hormones natural? That's why I went this route in the first place." Well, things are not always as they seem. According to Louisa Williams, ND, DC, author of *Radical Medicine*, "Many women using bioidenticals often find themselves in the same predicament so common among women using 'synthetic' hormone replacement therapy. That is, saturation of the tissues in estrogen and the inevitable problems that excess synthetic estrogen produces. And why? Because bioidenticals are synthetic. They are basically the same as so-called synthetic hormones and both are pharmaceutically derived."¹

There is no doubt that for some premenopausal and menopausal women, bioidentical hormone therapy offers much needed relief and is better than the complications that often arise without them. The purpose of this article is to assist readers in making informed decisions regarding the use of bioidentical hormones and to support those who desire to safely wean off bioidenticals while supporting their hypothalamus-pituitary-adrenal-gonadal axis (HPAG axis). It is always advisable that women wean gradually off bioidentical or synthetic hormones under the supervision of a licensed physician or naturopathic doctor. In my experience, the weaning process can be smooth once the Wise Traditions diet is implemented daily, meal and sleep routines are consistent and certain nutritional and homeopathic supports are in place.

As we consider hormones, keep in mind that each hormone, just like each cell, needs to act in synchrony with every other hormone. No hormone works in isolation nor are individual hormones immune to the influence of other hormones.

ANATOMY OF BIOIDENTICAL HORMONES

Bioidentical hormones are hormones derived from plants, such as soy or wild yams, and are designed to be structurally identical to the hormones produced naturally inside the human body. The claim is that “they are the closest and most natural form of exogenous hormones possible and yet they are identical to our own endogenous hormones.”

According to Dr. Laura Streicher, MD, “The only thing that is natural is to drink the horse urine or eat the soy plant (both are used in the manufacturing of hormones). All plant-derived hormone preparations, whether they come from a compounding pharmacy or a large commercial pharmacy, require a chemical process to synthesize the final product, which can then be put into a cream, a spray, a patch or a pill. Promoters of compounded plant-derived hormones use the terms ‘natural’ and ‘bioidentical’ because it is appealing to consumers and implies that it is not synthetic.”²

Plant-derived estrogen from soybeans is molecularly very similar but not identical to

human hormones. Contrary to popular belief, a hormone formula packaged at a compounding pharmacy is in reality no different than those formulas obtained from a mainstream pharmacy. Compounding pharmacies are working with the same synthetic raw material as the commercial pharmaceutical companies in creating creams, pills, sprays and patches.

ANATOMY OF HUMAN HORMONES

For many years, the scientific medical community believed that hormone replacement therapy (HRT) at any age would reduce the risk of heart attack and stroke. This hope was dashed by the Women's Health Initiative study, which found that taking estrogen plus progestin for more than five years places postmenopausal women at greater risk for heart attacks, strokes and several other serious problems. The study's conclusion reads, “Overall health risks exceeded benefits from use of combined estrogen plus progestin for an average 5.2-year follow-up among healthy postmenopausal U.S. women. All-cause mortality was not affected during the trial. The risk-benefit profile found in this trial is not consistent with the requirements for a viable intervention for primary prevention of chronic diseases, and the results indicate that this regimen should not be initiated or continued for primary prevention of CHD [coronary heart disease].”³

All human sex hormones are derived from cholesterol. The body manufactures roughly 80 percent of the cholesterol needed to maintain a healthy endocrine system. The remaining 20 percent comes from exogenous dietary sources, primarily animal fat in the form of egg yolks, butter fat, lard and bacon, tallow and beef fat, duck and goose fat, schmaltz and poultry skin, fish skin, fish eggs and wild seafood. Cholesterol is the precursor to pregnenolone. From pregnenolone, our sex and adrenal organs produce estrogens, progestins (progesterone) and testosterone (as well as DHEA, DHT and androstenedione).

Hormones are made in the pineal gland, hypothalamus, pituitary, parathyroid, thyroid, adrenals, thymus, pancreas, ovaries, testes and adipose tissue. Each of these glands play a role in the symphony of hormone production. It is

Contrary to popular belief, a hormone formula packaged at a compounding pharmacy is in reality no different than those formulas obtained from a mainstream pharmacy.

the hypothalamus-pituitary-adrenal-gonadal axis that is the big player in producing sex hormones. For simplicity's sake, we will focus on the production of the primary sex hormones—estrogens, progestins and androgens—and later, adrenal hormones and their influence over the transition known as menopause. Estrogens (estradiol, estrone and estriol) are produced in significant quantities by the ovaries, and a very small amount is secreted by the adrenal cortices. Estradiol is primarily produced in the ovaries; much of estrone is secreted in the peripheral tissues from androgens secreted by the adrenal cortices; and estriol is derived from both estradiol and estrone, with its conversion occurring mostly in the liver.

The most important of the progestins is progesterone. Progesterone should be secreted by the corpus luteum in significant amounts in cycling women during the luteal (second half) of the twenty-eight-day ovarian cycle. Testosterone is also a player in creating balance of female hormones throughout a woman's life. All three, estrogen, progesterone and testosterone, are steroids, made largely from cholesterol derived from the blood but to a certain extent also from acetyl coenzyme A.⁴ Dietary cholesterol plays a key role in providing precursors for the proper production of sex hormones for both women and men.

THE LIVER PLAYS A ROLE

It's important to understand the liver's role in relationship to sex hormones. Once hormones have done their job, so to speak, they are transported to the liver to be conjugated to form glucuronides and sulfates. The liver is responsible for converting the resulting potent estrogens (estradiol and estrone) into the less potent form, estriol. Of these substances, about 20 percent are excreted in the bile and then eliminated through the colon. The remaining products are excreted via urine.

If the liver's detox pathways, glucuronidation and sulfation, are impaired due to toxic overload from environmental factors (toxic chemicals in the air, food, etc.) the result will be weakened function which will actually lead to increased harmful activity of the estrogens in the body. Estrogen is an anabolic hormone. This means that its primary function is to encourage cellular proliferation and tissue growth. When estrogen is not properly balanced with progesterone and when the liver's detoxification functions are impaired, excess uncleared estrogen can lead to cancer and other destructive metabolic processes. This creates a state of estrogen dominance.

Symptoms of insufficient clearance of estrogens or estrogen dominance include acne, endometriosis, cervical dysplasia, gallbladder disease, loss of concentration, migraine headaches, premenstrual syndrome, bloating, weight gain, water retention, irritability, uterine fibroids and breast and ovarian cysts, to name a few. If a history of these conditions exists, one should pay special attention to supporting the liver and, in particular, these two pathways. We will discuss dietary and therapeutic supports further in this article.

Louisa Williams states that "The hormone replacement therapy debacle is just one example of allopathic medicine's malfeasance through emphasizing quick fixes in the form of a pill over the more time-con-

suming process of searching for the underlying cause of each patient's unique symptoms and prescribing a personalized treatment protocol."⁵ To delve deeper, let's look at underlying causes that contribute to hormonal dysfunction and how we can best create an internal milieu to support the body's natural desire for balance.

ADRENAL HORMONES

TO THE RESCUE. . . OR NOT

The primary function of the adrenal glands is to secrete into the bloodstream adrenaline, followed by cortisol, for the purpose of supplying additional energy in times of stress. Constant stress means constant stimulation of the adrenal glands. Due to the fact that adrenaline is capable of dissolving bone, overactive adrenal glands can be devastating to the skeletal system. The adrenals slow down their bone-dissolving hormones around age sixty-five, which is why bone loss decreases at this time.

Additionally, the adrenal glands are involved in the control of fluid balance throughout the body via the production of aldosterone and mineralocorticoids. The adrenal synthesis of cortisol and glucocorticoids assists in stabilizing blood sugar balance. Control of inflammatory and anti-inflammatory responses to injury also is dependent upon healthy, functioning adrenal glands.

The ease of one's transition into menopause is largely dependent upon the strength of one's adrenals and the state of one's mineral stores and general nutrition. One of the functions of the adrenal glands is to gradually take over the production of the various hormones that the ovaries have been producing (estrogen, progesterone and testosterone). Along with ovaries, testes and peripheral tissues, adrenal glands produce small amounts of sex hormones (DHEA, progesterone, estrogen and testosterone). These hormones are vital to overall health, strength, energy and stamina. Steroid hormones are essential to maintaining a healthy mood and emotional status. In essence, the adrenals provide a back-up system for sex hormone production.

We cannot talk about hormonal imbalance symptoms without discussing inflammation. Inflammation is often expressed as pain. Pain is our body's way of getting our attention. Inflam-

mation is now thought to be the root cause of the majority of chronic diseases. The adrenal hormone cortisol is used by the body to put the inflammatory fire out. (Cortisone shot, anyone?) Cortisol is made from cholesterol. If you experience chronic inflammation, your body preferentially makes cortisol to put the fire(s) out at the expense of making the sex hormones. The hormonal symptoms experienced may simply be a natural compensatory imbalance secondary to inflammation. Those people with lower cholesterol levels are even more susceptible to this imbalance.

Our adrenal glands are our glands of survival. They produce numerous hormones that are necessary in assisting the body to handle inflammation and stress. Ideally, we function best living in a state of acute or occasional stress and long periods of rest or peace. Unfortunately, many people living in our modern hurried culture experience just the opposite—chronic stress with occasional rest.

The body prioritizes hormone pathways to address chronic stress and inflammation by directing the lion's share of pregnenolone down the adrenal steroid pathway. The result is unavailable pregnenolone for the creation of sex drive. (Can you say "low libido"?) In the body's wisdom, one cannot successfully deal with chronic stress *and* procreate, especially in the absence of adequate cholesterol to provide the necessary parts for both the adrenal and sex hormone pathways. The bottom line is to take care of the inflammation issues first and give your body the chance to self-regulate your challenges.

Common stressors that can lead to adrenal dysfunction include:

- Unresolved emotional stress (anxiety, fear, worry, anger, guilt, depression)
- Late hours, insufficient sleep
- Overwork, either physical or mental, including excessive physical exercise
- Nutritional deficiencies
- Refined sugar (white sugar, brown sugar, corn syrup, fructose, dextrose, dextrin, high fructose corn syrup, etc. found in most processed foods)
- Overconsumption of caffeine (coffee, black

tea, chocolate, soft drinks)

- Chronic pain and/or illness
- Chronic or severe allergies
- Trauma, injury, surgery
- Corticosteroids (prednisone, cortisone)
- Synthetic vitamin C (ascorbic acid).

If you have afternoon sluggishness, think adrenal insufficiency. Other signs of adrenal weakness include general fatigue, difficulty falling asleep despite exhaustion, lack of libido, sugar cravings (especially for a "lift"), low blood pressure, arthritic tendencies, increased perspiration, swollen ankles, allergies, tendency to asthma, poor circulation, cold hands and feet, constipation, aversion to hot weather, low cholesterol, dizziness, salt cravings, brown spots or bronzing of the skin and nervous exhaustion.

DON'T FORGET THE THYROID

If you have morning sluggishness despite adequate sleep, think "thyroid." The number one symptom of low thyroid function (hypothyroid) is fatigue or exhaustion. Brain fog may also be a part of the hypothyroid picture. Hair loss and chipping or peeling nails without other symptoms is usually not thyroid. Look for the classic signs first. Other symptoms can include ovarian cysts, tinnitus, tendon and ligament problems as well as the propensity towards injury (chronic muscular and skeletal injuries). Also commonly seen in hypothyroidism is infertility, insulin resistance, constipation, anxiety, depression and night blindness, which is often due to the liver not converting beta-carotene to vitamin A. Ringing in the ears, edema (especially of the face) and weight gain, though not always, are common symptoms of low thyroid function. Those persons with primary hypothyroidism tend to prefer warm weather (whereas adrenal insufficiency people prefer cool weather).

Hypothyroidism is often overlooked. It is important to work with a trained practitioner who understands the merits of extensive thyroid testing along with observation of one's symptoms. Thorough thyroid testing includes serum levels of TSH, total T4, total T3, free T4, free T3, T3 uptake, reverse T3, free thyroxine index T7, thyroxine-binding globulin (TBG), thyroid peroxidase antibodies (TPO ab) and thyroid antithyroglobulin antibody (TAA). Assessment by a trained health care practitioner experienced in supporting thyroid disorders is key.

Additional tests that are useful in any hormone-balancing endeavor include temperature charting, DUTCH Test (sex and adrenal via dried urine), salivary hormone testing of sex and adrenal hormones, serum testing of hemoglobin A1c, Comprehensive Metabolic Panel along with phosphorus and a Complete Blood Count. Also, an in-office Ragland's test is helpful in monitoring adrenal status as well as a Page graph for an understanding of inherent endocrine function potential.

GET STARTED ON BALANCING

Foundational to recovery from bioidentical hormone therapy and to hormone balancing is establishing steady blood sugar levels as well as a healthy sleep routine. One of the common complaints of menopausal

women is sleep disruption. Either falling asleep is a challenge or staying asleep is a problem.

Typically, those who have trouble falling asleep are experiencing an inverted cortisol pattern. Rather than cortisol being at its lowest point at bedtime, cortisol actually climbs to its highest level. Many experience this in the form of a “second wind.” Several factors can contribute to this inverted cortisol pattern: prior use of birth control hormones, over-consumption of caffeine, chronic stress and working or living in bright lighting at night.

Correction of elevated cortisol that is keeping one from falling asleep at a decent hour (between 9:00 and 10:00 PM) can be achieved by a multi-faceted approach. This involves establishing a consistent rhythm in one’s day, including regular wake and sleep times, as well as regular meal times and time outdoors. Often it is necessary to support the hypothalamus and pituitary glands via nutritional therapy. The use of protomorphogens, particular to these glands, has proven very effective. In my nutrition practice, we use Standard Process’ Hypothalmex, Hypothalamus PMG and Pituitrophin PMG. Additionally, real food sources of the whole vitamin E complex provide nutrition for the pituitary glands.

Regardless of the nature of one’s specific imbalances, the following steps are always vital to hormone balance:

- Eliminate obstacles to balance
- Eat a Wise Traditions diet
- Correct digestion and blood sugar control
- Manage chronic prolonged stress
- Establish rhythm and spend time outdoors
- Support detoxification and elimination
- Address specific hormone imbalances
- Do regular movement and exercise
- Sleep restfully.

ELIMINATE OBSTACLES TO BALANCE

It is vital to eliminate as many obstacles as possible that block the endocrine system from staying in a state of homeostasis or balance. The following destroy health and may encourage estrogen dominance. We will discuss some of these in more detail in the following sections.

- Lowfat, high-sugar, high-carb diet
- Over-committed lifestyle
- Caffeine (coffee, tea, chocolate, sodas)

WISE TRADITIONS DIET

The Wise Traditions diet, which is a varied diet based on the findings of Dr. Weston A. Price, is always the diet of choice for those with hormonal challenges. The Wise Traditions diet ensures adequate intake of a variety of healthy traditional fats, moderate to small amounts of pastured or wild sources of protein, generous servings of organic vegetables and fruits, lacto-fermented vegetables and fruits for gut health, raw and cultured dairy products and moderate to small amounts of properly prepared grains, legumes, nuts and seeds.

Iodine is critical, especially for thyroid function. Adequate iodine is essential to optimal health. Eat wild fish and wild seafood and sea vegetables. Use unrefined Celtic sea salt. Avoid bromide. Bromide interferes with utilization of iodine in the body (in glandular tissues like the thyroid, breasts, ovaries, uterus, prostate). Bromide competes with iodine receptors, displacing iodine. Receptors will bind with bromide in its presence. Bromide is found in commercial breads, pasta and refined cereals. Avoid pool treatments that utilize bromine, as well as pesticides.

Selenium is probably the second most important mineral for thyroid function. It is a vital component of the enzymes needed to remove iodine molecules from T4 when converting it into the more active form, T3. Selenium is also an antioxidant, protecting the thyroid gland and immune system. The best dietary source of selenium is Brazil nuts. One to two Brazil nuts daily will provide one with plenty of selenium.

Sulfur (MSM) also provides major support for the thyroid and liver and is involved in the liver’s conversion of T4 to T3, the most biologically active thyroid hormone. Sulfur-rich foods include whole eggs, garlic, onions, leeks and others.

Zinc is necessary in order to make enough active thyroid hormone. It is also necessary for proper conversion of T4 to T3. Oysters are a delicious source of zinc, as is red meat. Copper and manganese help protect the thyroid from free radicals.

Vitamin D is required for the conversion of T4 to T3 and is needed for TSH production in the pituitary. Sunshine, lard from pastured pigs, raw milk and unrefined cod liver oil are excellent sources of vitamin D. Vitamin E is another antioxidant important for optimal thyroid function, protecting the thyroid from cellular damage.

Vitamin A helps to balance the correct levels of thyroid hormones. Adequate vitamin A levels are needed for proper thyroid and liver function. Vitamin A is found only in animal fats (butter, ghee, egg yolks, raw cream, liver, oysters, unrefined cod liver oil, fish skin, poultry skin, etc.) which are a vital part of the Wise Traditions diet.

Magnesium is another mineral essential for thyroid function and the regulation of conversion of T4 to T3. Cooked dark leafy green vegetables should be included on a very regular basis. The vitamins niacin and riboflavin regulate thyroid activity and contribute to the prevention of either an overactive or underactive thyroid. Niacin additionally works as an antioxidant.

- Alcohol and recreational drugs
- Chronic infections
- GMOs
- Gut permeability
- Electro-magnetic fields, radiation
- Antibiotics and other prescription and over-the-counter medications
- Toxic personal care and cleaning products, most of which contain known estrogens.

SUPPORT LIVER FUNCTION

As important as it is to eat right for our hormones' sake, we must also nourish our bodies well for proper liver function. Most people interested in health these days are aware of the concern regarding certain genetic mutations that affect liver function and detoxification. The most talked about mutation influences the liver's methylation pathway. Methylation is involved in almost every bodily biochemical reaction and occurs billions of times every second in our cells. Methylation mutations, as with all genetic mutations, exist because of what was inherited at birth. However, the genes you inherit from your parents are not your destiny. They are simply your tendency. Epigenetic factors can change genetic expression and that is why a Wise Traditions diet along with lifestyle factors and changes are so empowering.

When most people think of methylation, what immediately comes to mind is MTHFR genes. The tendency in many health circles is to hyper focus on this one mutation and its potential effect on liver function and hence, hormones. However, there are multiple genes that tag team with the MTHFR genes in the process of methylation. For this reason, it is not wise to just start supplementing with the typical recommendation of high-dose methylcobalamin (methylated B₁₂). Many with MTHFR SNPs (single nucleotide polymorphisms, the most common type of genetic variation among people) react poorly to methylated B₁₂ due to other related genetic mutations involved in methylation. MTHFR is a vital enzyme in the folate cycle and is required in the conversion of folic acid into L-methylfolate. Synthesis of neurotransmitters (such as serotonin and dopamine) can be halted by lack of active folate due to MTHFR and other mutations.

Rather than blindly supplementing with methylated B₁₂, start by consuming foods that are methyl donors daily. Your body knows what to do with the nutrients in food. Cooked dark leafy greens, soaked and cooked lentils, liver and beet kvass are all excellent methyl donors and should be consumed regularly. By increasing dietary sources of methyl donors, including vitamin B₁₂ and folate, the liver's methylation process is supported in the most natural way.

SUPPORT GLUCURONIDATION AND SUPPORTIVE FOODS

Glucuronidation takes place in the liver and is often involved in the metabolism of substances such as drugs, pollutants, bilirubin, androgens, estrogens, mineralocorticoids, glucocorticoids, fatty acid derivatives, retinoids and bile acids. The body uses glucuronidation to make a large variety of substances more water-soluble, and, in this way, allow for their subsequent elimination from the body through urine or feces (via bile from the liver).

Factors such as hypothyroidism, overweight, excessive estrogen, a compromised immune function and smoking affect the rate and efficacy of one's glucuronidation process.

Cruciferous vegetables support this pathway. They should be cooked (steamed or sautéed) or fermented. Raw cruciferous vegetables, such as broccoli, cauliflower, cabbage, kale, mustard greens and bok choy are very goitrogenic. This means they can lower thyroid function, which in most cases, we do not want to do.

Gotu kola is a perennial plant that is native to the wetland regions of Asia. It can be used for a variety of reasons. It supports the glucuronidation pathway. It is known to enhance microcirculation by increasing blood vessel and collagen growth with antioxidant and anti-inflammatory properties while preventing swelling. Think of it if you have skin concerns (such as premature wrinkling, poor scar healing) and edema.

Sulfation is a final phase in the liver's detoxification process. Sulfation transforms toxic sulfites into sulfate for elimination from the body. Sulfation plays an important role in hormone regulation and metabolism. Cell signaling and inflammation control also rely on sulfation. The body uses sulfation to eliminate many toxic environmental compounds including mercury, acetaminophen, xenobiotics and food additives like aspartame and sulfites, as well as endogenous toxins from intestinal bacteria, hormones (thyroid, cortisol and other steroidal hormones) and neurotransmitters.⁶

According to Stephanie Seneff, PhD, one of the world's foremost glyphosate experts, glyphosate depletes the liver of much needed sulfate. Glyphosate is the active ingredient in Monsanto's herbicide Roundup and is used in conjunction with genetically modified organisms (GMOs). Seneff believes that glyphosate disrupts the transport of sulfate from the gut to the liver and pancreas. The result is a plethora of diseases. Autism as well as celiac and other diseases of the gut are all linked to faulty sulfation pathway function.⁷ Elimination of GMOs from the diet is crucial for wellness.

Foods that offer excellent support for the sulfation pathway include organic garlic, leeks, eggs, raw cultured dairy, wild fish and shellfish,

liver, lamb, beef, chicken, pork, duck, goose, turkey, properly soaked and cooked lentils, soaked and cooked oatmeal, and barley. Ginger and mustard also offer good support for sulfation.

CORRECT DIGESTION AND CONTROL BLOOD SUGAR

Another essential function for obtaining optimal hormone balancing is optimal digestion and blood sugar control. To start, eliminate improperly prepared grains and refined vegetable oils. For serious digestive issues, consider the GAPS Diet, especially the GAPS Introduction Diet, a therapeutic diet designed to heal the gut.

The inclusion of digestive bitters or raw apple cider vinegar before meals will stimulate the stomach to produce hydrochloric acid and pepsin, both of which are designed to begin the process of digesting proteins and minerals. Bile insufficiency or thick sluggish bile is often seen in estrogen dominance. Common signs of bile insufficiency or biliary tract stasis are constipation, light colored stools and stools that float (indicating a malabsorption of fat). The addition of supplemental ox bile can help correct this condition. Consuming beet kvass, a traditional Russian lacto-fermented beverage, prior to meals is also extremely effective in thinning the bile stored in the gallbladder. This allows bile to be delivered into the duodenum of the small intestine more easily, thus enhancing the digestion of fatty foods.

As mentioned above, blood sugar regulation can be the cause of waking at night for many women. Following closely the Wise Traditions diet will be the most important step in creating stable blood sugar. Next will be establishing three regular meals daily. Do not skip meals or do intermittent fasting until blood sugar is steady.

Along with regular meals and meal times, use Dr. Natasha Campbell-McBride's recommendation of incorporating her butter-honey mixture (see page 38) into the diet in between meals.⁸ This in-between-meals snack is designed to give the body longer sustaining energy in the way

of butter with just enough raw honey to satisfy sugar cravings. As time goes on and blood sugar normalizes, one will need this snack less and less in between meals and in many cases, will feel perfectly satisfied until the next meal.

Insulin resistance, as well as sugar cravings, can be addressed in the same manner as above. The inclusion of therapeutic dosages of Mediherb's Gymnema can be very beneficial in both stopping sugar cravings and re-sensitizing cells to insulin. In many cases, Gymnema will need to be used for up to nine months, but the results are well worth the effort.

Evening primrose oil or black currant seed oil are also extremely useful in reversing insulin resistance. Additionally, they support hormone balancing in cycling as well as menopausal women. Evening primrose oil is especially suited for younger women, while black currant seed oil supports perimenopausal and menopausal women best. As with all plant oils, it is imperative to seek out high-quality therapeutic sources such as those provided by Mediherb and Standard Process.

Lastly, avoid eating after 7:00 PM (6:00 PM to support weight loss) to ensure that the bulk of the digestive process is finished before going to bed. Managing chronic stress and going to bed between 9:00 and 10:00 PM are essential steps in restoring blood sugar regulation.

SPEAKERS AT WISE TRADITIONS 2017



Ben Greenfield and his wife Jessa both gave presentations at the conference. Ben gave guidance for those struggling with weight loss while Jessa gave practical advice on getting started with an ancestral diet.



Eliza Vander Hoot, wife of Michael Schmidt, gave an inspiring description of her husband's struggles for raw milk in Canada at the closing remarks.

MANAGE CHRONIC PROLONGED STRESS

Considered by many physicians and health care practitioners to be the most common culprit for inflammation and chronic illness, prolonged stress must be addressed in order to achieve long-term hormonal balance. The first step in managing chronic stress is to create more margin in one's day and schedule. This requires prioritizing and being realistic.

Modern culture has imparted high demands on individuals with our pervasive use of technology. It takes a great deal of self-control to create healthy boundaries and safe spaces, if you will. But without boundaries and safe spaces, quiet is all but stolen from our existence. Take steps to limit your availability via email and cell phones. Learn to say "no" to excessive commitments. Refuse to be driven by the tyranny of the urgent. Very few "urgencies" are truly such. Make it a practice to turn off devices before dinner. Guard your safe spaces, giving yourself regular time outdoors daily without the presence of devices. Practice quietness on a daily basis. Journal, pray, meditate. Be still!

Another area of chronic stress comes in the form of unhealthy relationships. Look honestly at those relationships that bring repetitive stress into your day. Take positive action through the counsel of trusted friends, therapists, pastors, priests or rabbis or other counselors. Find solutions to rebuild strong relationships. Spend time

with those people who encourage you and do likewise to others.

Medical researcher T.S. Wiley once wrote, "We always knew that there were certain rules for staying alive in harmony with all other living things—how much you could eat, how long you could stay awake, and how much stress you could endure."⁹

Finally, a key ingredient to stress management is to make a commitment to restorative sleep. More on that later.

ESTABLISH RHYTHM AND SPEND TIME OUTDOORS

Our hypothalamus-pituitary-adrenal-gonadal axis is designed to receive signals from the sun, in a roundabout way. These signals are initiated by the suprachiasmatic nucleus (SCN) of the anterior hypothalamus. The SCN is the master clock controlling circadian rhythms. In essence, our biological time clock, or circadian rhythm takes its cues from sunlight.

Prior to the advent of electricity, it was easy to go to bed at an ideal time, two hours after sunset. As the eye perceives darkness, a message is transmitted via the optic nerve to the anterior hypothalamus and then to the pineal gland. Once received, the pineal gland, a neuroendocrine gland, initiates the production of melatonin. It takes the body roughly two hours from receipt of this signal to produce melatonin in levels sufficient to induce deep sleep. What happens if we live in bright artificial lights all day until late night? You guessed it. We miss the natural signals that should be transmitted. We live in a perpetual state of summer. Long days of light which translate to less sleep.¹⁰

SUPPORT DETOXIFICATION AND ELIMINATION

Gentle detoxification and biotherapeutic drainage provide crucial support for balancing hormones and recovering from the use of both bioidentical and synthetic hormone therapy. As a complement to biotherapeutic drainage, simple home therapies such as castor oil packs, dry brushing, dry sauna, liver-gallbladder flushes and coffee enemas

SPEAKERS AT WISE TRADITIONS 2017



Ronda Nelson gave a fascinating seminar on thyroid health.



Sylvia Burgos Toftness gave a class on making healing bone broth.



Stephanie Seneff presented yet another spellbinding lecture on cholesterol sulfate and the harmful effects of glyphosate.

may be incorporated. The goal is to eliminate the toxic liver stressors and their effects due to past use of over-the-counter and prescription medications, estrogens and xenobiotics from food, water and personal care products as well as synthetic hormones. Ensuring regular daily bowel movements is also critical in this process.

Dr. Dickson Thom, DDS, ND, explains biotherapeutic drainage in this way: “Drainage is the process of detoxifying the body by opening the emunctories and then discharging the toxic accumulations. However, in reality it is a much more complex process in that it provides a support for the natural progression and maturation throughout life.”¹¹

Drainage (or biotherapeutic drainage) is often confused with detoxification. The two terms are closely related but have specific differences. Detoxification refers to the process of cleansing a particular organ or gland or using therapeutic support to eliminate a toxin such as a toxic metal, parasite, chemical or pathogenic yeast. Detoxification tends to employ commonly used remedies without considering the individual’s elimination ability based on many factors.

Drainage takes into account each person’s unique metabolic status and requires a knowledge of the individual’s health history, level of health and elimination patterns and tendencies, among other factors. Biotherapeutic drainage was developed in Europe at the turn of the twentieth century. There are several forms of drainage remedies. These include gemmotherapy or plant stem cell remedies, single remedy homeopathy and complex homeopathy (such as UNDA Numbered Compounds).

In order for the body to heal, toxins must be released and affected tissues regenerated. It is always ideal that the release of toxins be done as gently as possible. Drainage therapies are designed to do just that. In addition to the aforementioned remedies, drainage includes simple therapies such as massage, dry saunas,

castor oil packs and hydrotherapy. These therapies can enhance homeopathy and gemmotherapy.

UNDA Numbered Compounds are complex homeopathic remedies that comprise homeopathic dilutions of both plant and metal sources. Being homeopathic, there is no plant or metal elemental form present in these remedies. The presence of the homeopathic dilutions (at a 12X potency) of the various metals allows the remedies to cross the cell membranes and stimulate intracellular detoxification. The seventy-five individual UNDA Numbered Compounds can be combined to create eleven hundred different protocols, providing a wide range of options tailored to the individual’s needs.

Key forms of drainage that I use most often are gemmotherapy and UNDA Numbered Compounds. Gemmotherapy remedies are plant remedies. They are specifically derived from the most embryonic part of the various plants that have been identified for their abilities to drain, regenerate and restore function to particular organs and glands. These remedies are made from young plant parts that include buds, rootlets, shoots or stems. The targeted portions of the plant are gently extracted and diluted using water, glycerin and alcohol. Gemmotherapy remedies are very supportive in recovering from the consequences of bioidentical hormone therapy. The key gemmotherapy remedies are *Sequoia Gigantea*, *Quercus Pedunculata* and *Ribes Nigrum*.

For specific adrenal support, *Ribes Nigrum*, a gemmotherapy extract from the black currant bud, is one of the most beneficial supports for regeneration of the adrenal glands. Ashwagandha, an herbal extract tincture, is also an excellent adaptagenic support for adrenals and especially for those who are creating high levels of reverse T3.

For thyroid support, the gemmotherapy *Prunus Amygdalus* serves to help restore and balance function. Additionally, for those with hypothyroidism, Mediherb’s Thyroid Complex provides bladderwrack, bacopa and ashwagandha along with trace minerals, including iodine. This is an excellent formula for improving sluggish metabolism. It is especially beneficial for those persons who are underconverting T4 to T3. In my practice, we find this effective along with complex carbs in moderation.

Support for estrogen dominance should always include liver drainage. Two gemmotherapy remedies that are time tested for efficacy of detoxing estrogenic compounds are rosmarinus (extract from rosemary buds) and juniperus (from juniper buds). Milk thistle, as a tincture, is also a very effective herb for assisting the liver in breaking down and eliminating estrogen and estrogen-like compounds. Daily inclusion of kelp for iodine and beet kvass further support the liver’s challenges from poor clearance of excess estrogen.

In cases where estrogen deficiency exists, the gemmotherapy *Se-*

BUTTER-HONEY MIXTURE FOR BLOOD SUGAR REGULATION

1 pound butter or ghee or coconut oil (cultured, grass-fed and organic is best, but any will do)
1/8 to 1/4 cup raw honey

Bring butter to room temperature. Blend with raw honey. Store in refrigerator. May keep jar in purse or backpack as needed during day. Take 1-2 tablespoons every 30-60 minutes during waking hours for a minimum of two weeks.

quoia Gigantea is a great therapeutic remedy. Black cohosh and wild yam can also be used to support low estrogen. Both these herbs should be used under the guidance of a trained health care practitioner. Please note that black cohosh is a powerful herb that should not be used during pregnancy as it can induce early labor and cause complications in the developing baby. However, homeopathic dilutions of black cohosh (*Cimicifuga racemosa* or *Actaea racemosa*) and blue cohosh (*Caulophyllum thalictroides*) can be safely used during the end of pregnancy to induce and stimulate labor. The subtle energy of homeopathic remedies makes them safe alternatives to aggressive pharmaceuticals.

Progesterone insufficiency is a very common challenge in modern perimenopausal and menopausal women. A very effective support for low progesterone is a combination of the gemmotherapy remedies *Ribes Nigrum*, *Sequoia Gigantea* and *Quercus Pedunculata*. This trio assists the body in naturally balancing. *Quercus Pedunculata* is particularly helpful in encouraging the production and balance of testosterone. Herbs such as chaste tree and wild yam complex can also be incorporated to correct insufficiencies. The use of whole food concentrate products like Drenamin to support the function of the adrenal glands and Ovex P to supply precursors for the production of progesterone are also superb options. All of these should be used under the guidance of a trained health care practitioner.

KEEP MOVING!

Don't forget the importance of regular exercise. The best exercise is the one you will do. Exercise stimulates the lymphatic system as well as the lungs and cardiovascular system. Exercise relieves stress as well. Find a routine you enjoy and stay with it. Don't be afraid to try new activities. Variety eliminates boredom.

SLEEP RESTFULLY


Sleep is one of the most restorative therapies we have and it costs us absolutely nothing!

Before you grab for that bottle of melatonin, understand how the production of melatonin works. The hormones melatonin and prolactin are the drivers of our biological clocks. Melatonin production by the pineal gland is stimulated

two hours after the eye perceives darkness. While melatonin can provide relief in acute situations, when taken long term it decreases natural production by shrinking the pineal gland.¹² If supplemental melatonin is used, it should only be in small amounts (1-3 mg) and infrequently, not on a nightly basis.

Instead, try a warm cup of bone broth or raw milk before bed. Both are teeming with minerals that are helpful for inducing a good night's sleep. *Rubus Idaeus* and *Tilia Tomentosa* are two gemmotherapy remedies that help the nervous and endocrine systems balance and bring relief to insomnia, irritability, depression and hot flashes. Two side effects of low progesterone are insomnia and snoring. Clinical research suggests that chaste tree increases melatonin secretion, especially at night. This, along with daily time outdoors, assists the body in having restful sleep.

IN CLOSING

In the pursuit of hormone balancing, we must strive to consider the long-term effects of our chosen therapies. Whenever possible, choose non-toxic therapies that encourage your finely designed hormonal system to adapt to the changing seasons of life. Ignore the media's many messages that tell us we are to be forever twenty. Honor the changing season of life by embracing with joyful expectancy the new adventures ahead. And never underestimate the regenerative and recuperative powers of the incredible human body. It is possible to restore strength and balance to your endocrine system at any age. 

Kim Schuette, CN, has been in private practice in the field of nutrition since 1999, teaching the importance of real food for optimal health. In 2002 she established Biodynamic Wellness where she and her staff specialize in nutritional and biotherapeutic drainage therapies to support gut/bowel and digestive disorders, detoxification, mindful preconception, hormonal imbalances, ADD/ADHD challenges, and children's health concerns. Additionally, Kim serves on the Board of Directors for the WAPF and co-serves as the WAPF San Diego chapter leader.

REFERENCES

1. Personal conversation with Louisa Williams, MSc, DC, ND in November 2017.
2. Steicher, Lauren. Buyer Beware: "Bioidentical" Hormone Myths. November 9, 2011. doctoroz.com/blog/lauren-streicher-md/buyer-beware-bioidentical-hormones-myths.
3. Rossouw JE, et al. Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. JAMA. 2002. <https://www.ncbi.nlm.nih.gov/pubmed/12117397/>
4. Guyton, Arthur & Hall, John. *Textbook of Medical Physiology*. Tenth Edition. Philadelphia: W.B. Saunders Company, 2000.
5. Williams, Louisa. *Radical Medicine: Cutting-Edge Natural Therapies That Treat the Root Causes of Disease*. Rochester, VT: Healing Arts Press, 2011.
6. BioFoundations. Enhancing the Six Phase II Detoxification Pathways by Consuming the Necessary Nutrients. *Interdiscip Toxicol* 2013;6(4):159-184.
7. Seneff, Stephanie and Anthony Samsel. Glyphosate, pathways to modern disease II: Celiac sprue and gluten intolerance. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3945755/>
8. Campbell-McBride, Natasha, Certified GAPS Practitioner Training. Dallas. November 2011.
9. Wiley, T.S. *Lights Out: Sleep, Sugar, and Survival*. New York, NY: Pocket Books, 2000.
10. Ibid.
11. Thom, Dickson. *UNDA Numbers: An Energetic Journey to Homeostasis and Wellness*. Scottsdale, AZ: JELD Publishing, 2013.
12. Wiley, T.S. *Lights Out: Sleep, Sugar, and Survival*. New York, NY: Pocket Books, 2000.

Following in the Footsteps of Dr. Weston A. Price in Peru

By Katie Williamson

In September 2017, I had the privilege and honor, along with my wonderful colleague, Hilda Labrada Gore, to travel to Peru to give a series of lectures around the country about Dr. Weston Price's masterpiece, *Nutrition and Physical Degeneration*. Our trip was sponsored by the Weston A. Price Foundation. Given that Dr. Price's book still is not published in Spanish, we felt the urgent need to share the wisdom contained in the book with a people so much closer to their roots than we are here in the United States.

Any Peruvian will tell you, with much deserved pride, that Peru is one of the most biodiverse places in the world. As you journey from the dry desert of the Pacific coast toward the east, you will glide over the majestic white mountaintops of the tallest peaks of the Andes Mountains and then descend into the lungs of the world, the Amazon rainforest.

With such variety in geography and climate comes an even greater diversity of culture. This diversity of culture is really just the conglomeration of the distinct responses of many different Peruvian people to the same basic questions: What does it mean to be human? How can I survive and thrive in this part of the world, wherever I am? Or, in the case of Peru, how can I survive and thrive in the driest desert or the tallest mountains or the deepest jungle? That's why Peru is home to *many* languages, *many* traditional diets, *many* typical dances and *many* types of music.

There are so many different ways to answer the fundamental questions of what it means to be human, just within the Peruvian borders. Our three-week journey to Peru on behalf of the Weston A. Price Foundation took us through some of these layers of culture. We started in the hectic city of Lima, moved on to the white and black ranges of the Andes in Huaraz, and finished our trip in the still-glorious former capital of the Incan empire, Cusco.

DR. PRICE'S MESSAGE

To help you better understand our journey to Peru and the goals we had in mind for our trip, we must start at the beginning of the story, with Dr. Price himself. Dr. Price traveled to Peru long before we did, back in the 1930s, and

dedicated two entire chapters of *Nutrition and Physical Degeneration* to Peru. (Most places he visited got only one chapter.) Clearly, Dr. Price was captivated by Peru's people, history and the variety of diets he found there.

Dr. Price was a remarkable person. Thanks to his vision and efforts, we find ourselves in Peru reading the *Wise Traditions* journal, part of an incredible family of people around the world who resonate with Dr. Price's message that "Life in all its fullest is Mother Nature obeyed"—and with his message that for humans to successfully move forward into the future, we must first honor and remember those who came before us and understand our roots and our past.

In fact, you and I are here today because we all come from a lineage of successful people. Our ancestors got it right, and for that, we should be very grateful. We do not have to go far back in human history to find people who knew how to live well. Dr. Price found many of them in the 1930s on his decade-long journey around the globe. The people he studied lived in harmony with the earth to nourish themselves, both body and spirit. They knew how to grow nutrient-dense food while contributing to soil health. They knew how to prepare food so the body could assimilate it well and, in turn, build strong, healthy and robust people who did not suffer from tooth decay and who had an easier

Clearly, Dr. Price was captivated by Peru's people, history and the variety of diets he found there.



We shared Dr. Price's message with all age groups in Peru, including schoolchildren in the remote province of Aija, situated in the Andean Mountains.



Quechua is the second most spoken language in Peru, with over three million speakers. We enlisted the help of our friend Silvia, who translated into Quechua for us. Pictured here are Elías, our biologist friend, Silvia (with her baby on her back), Katie and Hilda.

time looking at the world with a “glass half full” attitude.

Do these wonderfully robust and healthy people still exist today? If so, where can we find them? Are they in Peru or elsewhere? Part of the great gift of Dr. Price’s work is that he was traveling at the end of an era in human history when it was still possible to find a rather large number of indigenous groups around the world eating one hundred percent in the ways of their ancestors. In 2017, by contrast, you can take a small boat from Iquitos in the Amazon of northern Peru, travel for four long days, and arrive at an outpost in the middle of the jungle where the first thing you will see is Inca Kola, maybe the only drink worse than Coca-Cola. It’s a bright yellow, chemical, sugary concoction, and I’ve heard that it is the only national soft drink to outsell Coca-Cola in any country.

Not long ago I found myself in Yunguyo, Peru, by the shores of Lake Titicaca and quite literally a stone’s throw away from Bolivia, and I was hungry. I went on a search for *caldo de gallina* (chicken soup), which is

a nourishing, traditional food that has been enjoyed for hundreds of years across Peru. It took me forty-five minutes to find a woman with a cart selling *caldo*. All the other carts were selling the generic, modern Peruvian menu of the moment: *pollo a la brasa* (factory-farmed roast chicken), *salchicha con papas fritas* (hotdogs with French fries fried in vegetable oil) and *arroz chaufa* (fried rice, fried in cheap vegetable oil). Of course, consumers wash all that down with a cold cup of Inca Kola.

RECONNECTING TO TRADITION

Eating in Peru today provides a window into a situation that goes much deeper than what

A CONVERSATION WITH AN ALMOST-CENTENARIAN IN LIMA

One of the most amazing conversations that we had in Peru was with Doña Flor Irene Guam de Cruz, a woman who was ninety-eight (and is now ninety-nine!) years old. She lives with her daughter, Pepita Carrión Guam, in a beautiful apartment in Lima. She hosted us for lunch, serving a multi-course meal that included ceviche (raw fish marinated in lemon juice), fish soup and fried fish. She was eager to tell us about her diet growing up and her diet today.

Growing up, Doña Irene reported eating liver and onions made with tomato every morning for breakfast, along with sweet potato. Because Doña Irene grew up on the coast fish was a mainstay of her diet. Still talking about her childhood, she said, “At noon, we had ceviche. We would buy fish from the fisherman. We would spend all day at the beach. At five in the morning, when it was dark, we would leave home and bring everything we needed to prepare ceviche. We would bring dried fruit, everything, and would show up back home at six in the afternoon. Living at the beach is very healthy.”

Describing snacks and soups, Doña Irene stated, “We would eat olives and *jamón del país* (country ham), which is very good. It’s like the ham from Spain. The pigs are raised on Spanish acorns. Our local ham is like that, but with Peruvian flavor. It’s tastier. We also ate fruit, lots of dried fruit. And broth. We ate beef soup, boiling the head of the cow, the eyes. And beef feet. You get gelatin from the feet of the cow. Great food! Every day.” During pregnancy and for forty days after giving birth, she consumed chicken soup from pastured chickens.

Doña Irene’s daughter Pepita described her mother’s diet today. “You always have a rich breakfast: soft-boiled eggs, boiled sweet potato, cassava. My mom doesn’t like to eat bread, but she does like black olives. She likes cheese very much, too, she loves cheese. Manchego. Fresh cheese from the Cajamarca region. And then you always have to eat fruit in the middle of the morning. After that, lunch is five courses, because you have the appetizer, soup, main course, dessert, fruit and tea, along with wine—always a cup of red wine. After that, you have tea time, and for that we generally get a sandwich with a piece of savory pie made with artichoke or chard. She likes chard very much. And tea or coffee with *alfajorcitos* (traditional caramel cookies) or a simple cake. And after that, dinner, because if my mom doesn’t have dinner, she can’t sleep. We have soup and a main course and that’s it. It’s actually a lot of work because it’s five meals over the day. Once I said, ‘Mom, you can’t eat so much at night. You should have breakfast like a queen, lunch like a princess and dinner like a beggar.’ I called the doctor and said ‘Doctor, my mom shouldn’t eat so much.’ He said, ‘Put her on the phone’ and he asked her, ‘Doña Irene, how are you?’ She said, ‘You might not be hungry, doctor, but I am, so I am going to eat.’ When I got back on the phone, the doctor said, ‘Let her eat.’”

Doña Irene continues to give her household directions about what to cook. Pepita says, “We have to do what she wishes.” Every Saturday, she asks her nephew (who is a marine admiral) to buy six pounds of fish for her, and he brings her the fish. Doña Irene says, “I eat fish heads even now. Today, when I feel like having it, I go to a restaurant and ask for a fish head.”

Doña Irene noted that with the exception of dengue fever fifteen years ago, she has not had any health problems. Pepita also chimed in on her mother’s health. “My mother, for her age, has beautiful skin, right? She has had no surgeries. She doesn’t really suffer from anything. Just the lungs, because up north in Piura, there’s a lot of pollution, and it affects her lungs. And that’s it. Here, in Lima, she hasn’t been sick yet, not from the cold or anything.” Overall, Doña Irene’s life is a marvelous testament to the power of real food.

is on our plate. Peru is at a critical crossroads, and for many, it seems as though there are only two paths to choose from—and choosing one means giving up the other. People view the crossroads as “modern” versus “traditional;” countryside versus city life (a third of the Peruvian population now lives in the capital city of Lima); Inca Kola versus *chicha* (an ancient fermented corn beverage); Spanish versus Quechua (one of the many indigenous languages still spoken in the country today); textiles handwoven in the Andes versus jeans imported from China; and the list goes on and on. But do we really have to make such black-and-white choices? Does accepting the inevitable wave of modernity mean that we must give up all that is old, ancestral and traditional? The Weston A. Price Foundation, channeling Dr. Price’s message, tells us that it does not have to be this way. We can use technology to our advantage to help us preserve thousands of years of accumulated wisdom about how to eat and live in harmony with the earth.

As representatives of the Foundation, our goal in our Peruvian journey was not to preach but rather to inspire. We started each talk by telling the audience: “You know more than we do. This is your land, and these are your grandparents and your traditions. It is your wisdom to remember.” We said that we were traveling as messengers of Dr. Price because his book is remarkable and important. It provides all of us, whether in Peru or beyond, with a roadmap from the past to show us how to take our next step into creating a beautiful future together.

We shared Dr. Price’s message with many different kinds of people, including young, bright students from the National Agrarian University in Lima, small-town schoolchildren

in Aija (nestled in the black range of the Andes) and a group of all ages dedicated to the art and science of permaculture. Everywhere, our talks were incredibly well-received. Without having heard Dr. Price’s name or read his book, we found that many Peruvians already carry his message in their hearts. Sharing *Nutrition and Physical Degeneration* simply provided a little more proof of what Peruvians have known for thousands of years, namely, that “Life in all its fullest is Mother Nature obeyed.”



“To know our past is the starting point for building possible futures.” We met Wilfredo Puma Llanos on the streets of Pisac, carrying this beautiful sign.

NEXT STEPS

In the aftermath of our trip, the very important question arises as to what our next steps might be, both within and outside of Peru. What do we do in the face of cultural erosion, which includes culinary erosion? What can we do as individuals—and also collectively as members of the Foundation—to help Peru and other countries that are still closer to

their roots? There is so much left that we can help save.

We are all connected. Lost culinary wisdom in Peru affects you and me, even if you never visit the land of the Incas. That it took me forty-five minutes to find a *caldo* in Yunguyo matters to you and me and every person on the planet. We cannot afford to lose indigenous wisdom. We must be committed to doing our part to preserve what is left and to teach others to do the same, just as Dr. Price did so long ago.

Peru is a place to which we can lend our prayers, our resources and our actions. We are establishing two WAPF chapters in Lima. We filmed our hour-long talk in Spanish about the message in Dr. Price’s book and plan to publish it on YouTube so that Spanish speakers worldwide can watch it and learn more about the value of traditional wisdom in the kitchen and

We cannot afford to lose indigenous wisdom. We must be committed to doing our part to preserve what is left and to teach others to do the same.


What has always impressed me the most about Dr. Price's book is the profoundly authentic respect that he had for indigenous people, their lives and their wisdom.

in life. We also want to thank WAPF members for their membership and continued support of the Foundation. Thanks to member support, our dream of a trip to Peru became a reality. Many more projects will be born from this initial effort to expand the Foundation's presence across Latin America.

AUTHENTIC RESPECT

Every time I pick up *Nutrition and Physical Degeneration*, I discover another gem of wisdom that leaves me in awe of the potential of the human being. I have such reverence for life and for all the different ways that people have found to show what it means to be alive and to eat and live well. I believe that Dr. Price shared this reverence for life. In fact, what has always impressed me the most about his book is the profound respect that he had for indigenous people, their lives and their wisdom. As an educated white man traveling in the 1930s to remote corners of the earth, Dr. Price treated the people he encountered as wise people he wished to learn from. Thanks to Dr. Price's courage and efforts, in 2017 we were able to follow in his footsteps and in his spirit of love, respect and care for the Peruvian people—those living now

as well as those who came before in one of the most beautiful countries on earth.

I like to say that “my life is my prayer,” and I like to think that Dr. Price felt the same way. His book is a beautiful, scientific and adventurous love poem to humanity in all of her glory and potential. We can be agents of destruction, but we can also be agents of unimaginable positive change. I choose the latter. May we never forget that to create a healthy future, we must honor our roots, our past and the soil beneath our feet. I am thankful to Dr. Price and to the country of Peru for teaching me and so many others this lesson of respect. 

Katie Williamson is the founder of the New Orleans WAPF chapter, a lover of Perú and an enthusiastic sharer of Dr. Price's book, Nutrition and Physical Degeneration. She has been dividing her time between the U.S. and Perú for the last six and a half years. Katie manages a Spanish-language blog, Yo Soy Pachamamista, dedicated to sharing traditional wisdom for both human and planetary health.



MORE WONDERFUL VENDORS AT WISE TRADITIONS 2017

LEFT: Buchi Kombucha donated delicious kombucha for every meal!

RIGHT: Dr. Linda's crispy nuts, popcorn and seaweed products were very popular!



LEFT: Many attendees enjoyed the healing infrared lights at Sauna Space.

RIGHT: A happy attendee enjoys the warmth at WBWC Personal Infrared Sauna.



A TASTE OF PERU By Hilda Labrada Gore

Our three-week trip to Peru came and went in the blink of an eye (*un abrir y cerrar de los ojos*). Katie and I zig-zagged across the country to address children, young adults, mothers of small children, food devotees and many others.

One memorable encounter took place in La Merced, a small mountain village in Aija. The Vicente Guerrero Palacios elementary school almost literally rolled out the red carpet for us at a school assembly. The desks in front of us were covered with bright red fabric, accented by yellows, greens and blues. The student band, dressed in white, played their horns and drums. The principal turned up the sound system and heartily welcomed us and the students treated us to a traditional dance and an inspiring poem. Katie and I were humbled by this reception.

Many villagers in La Merced still speak Quechua. They live close to the land, enjoying the fruits of their farming and their traditional foods. As a parting gift, the villagers served us huge bowls of their traditional quinoa and tocosh soup. Tocosha is a tangy-tasting potato (reminiscent of tamarind), fermented over a period of months so that it acquires wonderful antibiotic and medicinal properties. Admittedly, tocosha may be an acquired taste, but I was thrilled beyond measure that this community was holding on to its ancestral food ways.

We sampled several traditional meat dishes in Peru, including *anticucho* (beef heart served on a skewer), alpaca meat and *chicharrones de cuy* (guinea pig fritters). *Cuy* is a traditional protein source that was even eaten by the Incas, so it was exciting to find these foods still being served in restaurants and homes across the country. I also enjoyed *lomo saltado* (a meat, onion and potato dish) prepared and served by a lovely indigenous woman in Aija.

That said, Peru is experiencing the same apparent tension between the “old ways” and the “new ways” that we observe in countless other countries. There are multiple threats to the health of the people and the land. For example, Monsanto and Bayer have reached the Sacred Valley (not far from Machu Picchu) and are persuading farmers to replace their natural varied corn crops with genetically modified corn. Some people still cherish traditional foods (and ancient preparation methods), but others regard them as outdated. In many circles, Peruvians equate the word “healthy” with a meatless diet, and veganism is on the rise. (A vegan café in Lima was pleasingly committed to serving locally and sustainably obtained food but is part of a wider trend that unfairly labels animal products as unhealthy.) Supermarkets selling sodas and processed foods are mere blocks away from open-air markets where “mamas” (indigenous women in lovely traditional skirts and hats) sell garden produce, including medicinal herbs, plants, corn, beans, fruits and vegetables.

Fortunately, *mamas* were everywhere we went, and traditional markets appear to be adapting and thriving. *Bioferias* (organic farmers’ markets) are popping up everywhere. *Bioferias* sell a dazzling combination of organic, gluten-free and even vegan products. At the Lima *bioferia*, fruits and vegetables (many of which I had never seen before) were plentiful, along with fresh artisanal bread, butter, cheese and more. In Cusco, we visited a marvelous traditional market (one of several in that city) set up in an enormous concrete building the size of a convention center. Market stands offered fresh chicken, beef, cheeses, juices, soups, fruits and vegetables—you name it! I spotted many fruits (such as *aguaymanto*, *lúcuma* and passionfruit) and potatoes everywhere (Peru boasts some three thousand varieties). Also in Cusco, we met a group called Canasta Solidaria Mihuna Kachun that is working hard to resurrect traditional foods, herbs and spices. They sell samples at farmers’ markets, reacquainting Peruvians with these foods and teaching them what nutrients the foods provide and how to prepare them.

While talking with a group of moms in their childbearing years in Lima, we mentioned that every culture had some kind of sacred food to give to mothers-to-be prior to conception. One of the young women interjected that whenever she returned to her village for a visit, her grandmother urged her to have some animal blood so that she “could have babies.” In Pisac, a town in the Sacred Valley region, a Quechuan man confirmed that it was their tradition to give young people guinea pig and sheep’s blood from the ages of sixteen to eighteen to prepare them for conception.

Overall, it was a joy to find so many who are convinced of the importance of embracing and holding on to traditional wisdom related to the soil and food. Fortunately, those who support wise traditions have the proper fuel and strength to weather the storm of modern dietary influences and trends, both in Peru and around the world.

Hilda Labrada Gore is an enthusiastic communicator, health coach and fitness professional. She is the producer and host of the Wise Traditions podcast, and also is the DC co-chapter leader for WAPF. She is passionate about wellness on every level, which is why she is known as “holistic Hilda” (holistichilda.com). She is a blogger, speaker and consultant for those who want to launch their own podcasts. She lives in Washington, D.C., with her husband, children and dog and cat.



SAVE THE DATE!

Wise Traditions 2018
November 16–18, 2018
Hilton Baltimore
Baltimore, Maryland

THE WESTON A. PRICE FOUNDATION®
for **Wise Traditions**
IN FOOD, FARMING AND THE HEALING ARTS
Education • Research • Activism

Reading Between the Lines

By Merinda Teller

Modern Assaults on the Thyroid

In the modern era, the small but mighty thyroid gland—and the entire endocrine system of which it is a part—are under attack from many directions.

Thyroid health is critically important. The thyroid gland—which makes and secretes hormones that regulate metabolism—influences cells, tissues and organs throughout the body. As one thyroid expert puts it, “Without your thyroid, you’d wind down like a child’s toy.”¹

Unfortunately, in the modern era the small but mighty thyroid gland—and the entire endocrine system of which it is a part—are under attack from many directions. An estimated twenty million Americans suffer from some type of disorder that affects the thyroid, with women far more likely (five to eight times) than men to have thyroid problems. According to the American Thyroid Association, more than 12 percent of the U.S. population will develop a thyroid condition in their lifetime.² Even so, many conventional health care workers fail to recognize and accurately diagnose thyroid problems.

HYPOTHYROIDISM

Eight out of ten individuals with a thyroid disorder have an underactive thyroid (hypothyroidism). Most often, this will be Hashimoto’s thyroiditis, an autoimmune condition in which the immune system attacks (and eventually incapacitates) the thyroid as if it were an enemy. Hashimoto’s is on the rise but is already the most common autoimmune disease in the U.S., prompting massive sales of synthetic thyroid hormones.³ Thyroid authority Raphael Kellman makes the important point that Hashimoto’s actually is not a thyroid disease but rather “an autoimmune disease that affects the thyroid.”⁴

Based on years of clinical observation, Dr. Robert Thompson, author of *The Calcium Lie*,⁵ has developed five distinct categories of hypothyroidism that illustrate the many different ways that thyroid health can go awry. (He admits that “the medical profession does not generally

recognize them thus far.”¹) They include:

- Type 1 (the failure to produce sufficient thyroid hormones)
- Type 2 (thyroid hormone resistance, where the body is unable to recognize or use the thyroid hormones that it produces)
- Type 3 (autoimmune thyroid disease, including Hashimoto’s)
- Type 4 (severe selenium deficiency)
- Type 5 (Wilson’s Thyroid Syndrome).⁶

According to Dr. Thompson, the five types are not necessarily mutually exclusive.

For virtually all of these thyroid-related conditions, dietary and environmental factors are major parts of the problem.⁷ Aspects of modern life that are contributing to thyroid disease include the Standard American high-soy, lowfat and fat-soluble-vitamin-deficient diet; iodine imbalances;⁸ and exposure to toxic substances,⁹ notably fluoride.¹⁰ Diet and detoxification should, therefore, represent critical elements of any solution. As holistic nutritionist Dr. Ronda Nelson states, “Don’t fix your thyroid, feed it!”¹¹

THYROID-UNFRIENDLY SOY

A singular feature of the modern American diet is its reliance on and love affair with myriad forms of cheap industrially processed soy. As Michael Pollan has observed, “A food scientist can construct just about any processed food he or she can dream up” with soy (as well as corn and “a handful of synthetic additives”).¹²

Long-time *Wise Traditions* readers will know, however, that soy isoflavones inhibit the enzyme thyroid peroxidase (TPO), that plays a key role in thyroid hormone synthesis, and they also interfere with thyroid hormone production: “This interference can cause a drop in thyroid hormone levels, an increase in thyroid stimulat-

ing hormone and stress on the thyroid gland,” which is “a prescription for thyroid trouble.”¹³ Even one serving of soy food can pack more of a thyroid-inhibiting punch (“up to three times the goitrogenic potency”) as pharmaceutical drugs intentionally designed for that purpose.¹³ A health writer who has reviewed the body of evidence on soy and the thyroid advises caution with all forms of fractionated soy, particularly because these products also are likely to derive from genetically modified (GM) soy.¹⁴

In the *Journal of Medical Case Reports* in 2017, Japanese researchers corroborated soy’s role as an “exogenous food” capable of interfering with thyroid hormone production. They presented (to their knowledge) “the first report of the presence of [soy] isoflavone in the serum of a patient with severe hypothyroidism.”¹⁵ The report described the case of a seventy-two-year-old woman who showed up at the hospital with sudden-onset severe hypothyroidism after six months of regularly consuming a processed soy-containing “health drink.” Because the woman was an ongoing patient, the researchers had access to her frozen serum from five time points *before* the hospital admission and continuing for several months *after* admission. This allowed them to pinpoint the soy isoflavones as the culprit for the patient’s sudden decline, leading the authors to conclude that “consuming health drinks that include soy isoflavone powder extract can lead to severe hypothyroidism.” After immediate discontinuation of the beverage, the woman’s thyroid markers gradually returned to more normal levels.

The ringing endorsement of commercial soy by celebrity doctors such as Andrew Weil and Christiane Northrup has helped perpetuate the erroneous belief that products such as soy milk are healthy, but those days may be numbered. In response to a petition submitted almost ten years ago by the Weston A. Price Foundation, the U.S. Food and Drug Administration (FDA) belatedly has proposed revoking food manufacturers’ ability to claim that soy protein reduces heart disease risk. An FDA representative stated, “This is the first time we have considered it necessary to propose a rule to revoke a health claim,” admitting that “the totality of currently available scientific evidence

calls into question the certainty” of the supposedly protective soy-heart relationship.¹⁶ This landmark shift from an ordinarily intractable agency is good news not just for heart health but also for thyroid health. In fact, the two are intricately interrelated. Cardiovascular symptoms are “some of the most characteristic and common” signs of thyroid disease, and thyroid dysfunction can explain “changes in cardiac output, cardiac contractility, blood pressure, vascular resistance and rhythm disturbances.”¹⁷ A thyroid blogger asks, “Could there be people on statin drugs and blood pressure medication... who are actually undiagnosed hypothyroidism sufferers?”¹⁸

LOWFAT, LOW-CARB, HELP!

Another piece of dogma that continues to steer Americans’ eating habits—and thyroid health—in the wrong direction is the slow-to-go-away advice to eat a lowfat diet. (Fortunately, this advice also has just taken a major hit; an eighteen-country study published in *The Lancet* in November 2017 shows no association between total fat or saturated fat intake and heart disease, while pointing to a higher risk of total mortality associated with high carbohydrate intake.¹⁹)

The *Hormones & Balance* website (authored by a holistic health coach who recovered from Graves’ Disease, Hashimoto’s and adrenal fatigue) makes the point that our bodies need good-quality fats to absorb the all-important fat-soluble vitamins (A, D, E and K)—crucial vitamins that thyroid patients often are lacking.²⁰ Secondly, the body needs fats to make hormones; when intake of healthy fats is inadequate, hormone levels “plummet” and the hormone-producing thyroid “similarly takes a hit.”²⁰ Some of the healthiest fats in this (and many other) regards include butter, ghee and coconut oil. As certified nutritionist Kim Schuette points out, all three fats are excellent sources of butyric acid, which plays an important role in supporting delivery of thyroid hormones to receptor sites throughout the body.²¹ Others agree that “high intake of saturated and mono-unsaturated fat but low intake of polyunsaturated fat would seem to be optimal for thyroid function.”²²

Schuette’s discussion of beneficial fats

The body needs fats to make hormones; when intake of healthy fats is inadequate, hormone levels “plummet” and the hormone-producing thyroid “similarly takes a hit.”

Iodine is essential for synthesis of thyroid hormones, so it is not surprising that the thyroid is where the body stores roughly three-fourths of its iodine.

arises in the context of an article focusing on the problems associated with long-term avoidance of complex carbohydrates.²¹ As healing regimens such as the ketogenic and GAPS diets have gained in popularity (alongside continued fascination with lower-carb paleo and “ancestral” diets), the role to be played by carbohydrates in a healthy diet has become “hotly contested” and “completely confusing.”²³

In point of fact, both extremes can be challenging for the thyroid. On the one hand, a diet that is high in refined carbohydrates can lead to insulin resistance, metabolic syndrome and diabetes—diseases strongly correlated with thyroid disorders.²⁴ On the other hand, when individuals who are understandably trying to avoid sugars and refined grains swing to a zero or very-low-carbohydrate diet, this can have the effect of blocking biologically active thyroid hormones, resulting in hypothyroidism symptoms such as fatigue, constipation and depression.²¹ As one person puts it, “When all available glucose is being conserved for your brain,” the body has no choice but to put the process of thyroid hormone conversion “on hold.”²⁴ To restoke one’s “metabolic fire,” Schuette recommends including properly prepared complex carbohydrates with each meal (including starchy vegetables and soaked legumes and grains), accompanied by plentiful animal fat and/or coconut oil and Celtic sea salt to supply minerals and trace elements, including iodine.²¹

IODINE AND FLUORIDE

Iodine is essential for synthesis of thyroid hormones, so it is not surprising that the thyroid gland is where the body stores roughly three-fourths of its iodine. Dr. Ronda Nelson describes this storage system as a “savings account” that periodically requires replenishment.¹¹ In addition to needing to take in adequate iodine, according to Dr. Nelson, we need to have a healthy gut (which facilitates conversion of some portion of iodine to iodide), and we need the right cofactors (especially the fat-soluble vitamins, magnesium, selenium and vitamin D) to enable the transport of iodine and its use by the thyroid. Studies have identified interactions between vitamin A and iodine metabolism, for example, showing that diets deficient in both nutrients im-

pair thyroid metabolism to a greater extent than diets deficient in only one or the other.²⁵ Vitamin A supplementation (with a natural source like cod liver oil) reduces the risk of hypothyroidism and improves iodide efficiency.²⁵

Three toxic halogens (bromine, chlorine and fluorine) are structurally similar to iodine. Because of this similarity, they can take up residence in the thyroid gland, where they exert a negative influence and displace iodine.⁸ The three elements are all worrisome from a health standpoint. However, the policy of adding unpurified industrial fluoride compounds to municipal drinking water may be particularly egregious because it subjects citizens to systemic negative health effects, without their consent, in exchange for a putative benefit to the teeth. (Even this highly touted dental “benefit” is questionable, given the rising prevalence of dental fluorosis.)²⁶ The compounds added to public water include fluorosilicic acid (an acidic liquid) and sodium fluorosilicate and sodium fluoride (dry powders), all of which also are frequently contaminated with “non-trivial” amounts of arsenic.²⁷ U.S. water utilities not only obtain their fluoride chemicals from the U.S. phosphate fertilizer industry but also from China, where oversight is likely to be “lax and variable.”²⁷

Leading neurology experts agree that fluoride compounds are neurotoxic,²⁸ but the U.S. Centers for Disease Control and Prevention (CDC) persists in celebrating water fluoridation as a major public health achievement. As a result, it is difficult for U.S.-based researchers to obtain funding to study fluoride’s adverse health effects. Researchers in other countries have made greater headway. For example, a 2015 study in the United Kingdom—where about 10 percent of the population receives fluoridated water (in contrast to roughly two-thirds of the U.S. population)—took advantage of the availability of detailed community water fluoridation data and General Practice data on the prevalence of hypothyroidism to assess fluoride’s effects on the thyroid.¹⁰

The researchers found that practices located in fluoridated areas were nearly twice as likely to report a high prevalence of hypothyroidism as practices in non-fluoridated areas, raising “concerns about the validity of community


fluoridation as a safe public health measure.”¹⁰

In rat studies, researchers in India have observed that subjecting rats to a sub-acute exposure to sodium fluoride for thirty days induces thyroid dysfunction, and that the “structural abnormality of thyroid follicles by fluoride intoxication clearly indicates its thyrotoxic manifestation.”²⁹ Other Indian researchers have administered high-fluoride water to rats expressly to study “fluoride-induced changes on...thyroid hormone status.”³⁰ Studying the rats across three generations, the research team documented “generational or cumulative effects of fluoride on the development of the offspring when...ingested continuously through multiple generations.” Because thyroid hormone plays such a crucial role in brain development, the investigators concluded that changes in the thyroid hormone levels may have “imbalanced the oxidant/antioxidant system” and reduced learning memory.³⁰

A human study in India considered school children living in “endemic fluorosis areas” where the children not only exhibited widespread dental fluorosis but also low IQ and other developmental problems.³¹ Whereas U.S. public health authorities define dental fluorosis as a common and seemingly benign condition that simply “causes changes in the appearance of tooth enamel,”³² fluorosis is actually a sign of chronic fluoride poisoning.²⁶ This particular group of Indian researchers views fluorosis as a marker for developmental disorders, noting fluoride’s known ability to “interfere with thyroid gland function and to cause degenerative changes in the central nervous system [and] impairment of brain function.”³¹ Like their

U.K. counterparts, these Indian investigators are alarmed by the public health policy of fluoridating drinking water, particularly in light of the growth disturbances and underlying thyroid disease detected in their sample of adolescents.

CONCLUSIONS

There are many other factors that influence thyroid health and the functioning of the endocrine system as a whole. Dr. Ronda Nelson puts stress at the top of the list of factors to address. In addition to lowering one’s stress, Hashimoto’s expert Izabella Wentz considers it fundamental to support the liver and adrenals, balance the gut and evaluate “root cause” factors such as infections and toxins.³ Although tackling sub-optimal thyroid health may seem like a daunting prospect, many of the same steps that one might take to adopt a Wise Traditions diet and lifestyle will go far toward nourishing the thyroid. 

Fluoride has a known ability to “interfere with thyroid gland function and to cause degenerative changes in the central nervous system.”

REFERENCES

1. Thompson R, Barnes K. Hypothyroidism. <http://www.calciumlie.com/five-types-hypothyroidism/>.
2. American Thyroid Association. General information/press room. <https://www.thyroid.org/media-main/about-hypothyroidism/>.
3. Wentz I. *Hashimoto’s Protocol: A 90-Day Plan for Reversing Thyroid Symptoms and Getting Your Life Back*. New York, NY: HarperOne, 2017.
4. Kellman R. Hashimoto’s thyroiditis: we can win this battle! Huffpost, April 24, 2015. https://www.huffingtonpost.com/dr-raphael-kellman/hashimotos-thyroiditis-we_2_b_7118690.html.
5. Thompson R, Barnes K. *The Calcium Lie: What Your Doctor Doesn’t Know Could Kill You*. Brevard, NC: InTruth Press, 2008.
6. Wilson D. Wilson’s thyroid syndrome: the thyroid’s role in depression, anxiety, and other symptoms. <https://www.alternativementalhealth.com/wilsons-thyroid-syndrome-the-thyroids-role-in-depression-anxiety-and-other-symptoms-3/>.

ENDOCRINE-DISRUPTING CHEMICALS, HYPOTHYROIDISM AND AUTISM

Holistic medicine pioneer Raphael Kellman has made it one of his missions to publicize the link between hypothyroidism and autism spectrum disorders.³³ Many strands of evidence support this link. Dr. Kellman notes, in particular, that the developing fetus and infant are highly susceptible to the array of endocrine-disrupting chemicals (EDCs) that have been associated with both thyroid disease and autism, including polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), perchlorates, phthalates, dioxins, bisphenol A (BPA), heavy metals and more.

Dr. Kellman notes that, in cancer, “the dose makes the poison”—but endocrine-disrupting chemicals “play by different rules.” He continues, “Here, one can say, ‘the timing makes the poison.’ ...In other words, neurological development is like a chemical ballet, dependent on the right hormone message being sent and received at precisely the right time and in the right amount. This ballet opens windows of vulnerability.” In short, “Even low doses of EDCs, which may have little effect on adults, can have devastating effects on the unborn, neonate and child.”³³

7. Struja T, Kutz A, Fischli S, et al. Is Graves' disease a primary immunodeficiency? New immunological perspectives on an endocrine disease. *BMC Med* 2017;15: 174.
8. Brownstein D. *Iodine: Why You Need It, Why You Can't Live Without It* (3rd edition). West Bloomfield, MI: Medical Alternatives Press, 2008.
9. Luo D, Pu Y, Tian H, et al. Association of in utero exposure to organochlorine pesticides with thyroid hormone levels in cord blood of newborns. *Environ Pollut* 2017;231(Pt 1):78-86.
10. Peckham S, Lowery D, Spencer S. Are fluoride levels in drinking water associated with hypothyroidism prevalence in England? A large observational study of GP practice data and fluoride levels in drinking water. *J Epidemiol Community Health* 2015;0:1-6.
11. Nelson R. Diet for thyroid health. Restoration Health, July 13, 2017. <http://blog.restorationhealth.net/diet-for-thyroid-health/>.
12. Pollan M. *Omnivore's Dilemma: A Natural History of Four Meals*. New York, NY: Penguin Press, 2006.
13. Daniel KT, Onusic S. Wise thyroid. *Wise Traditions* 2012;13(1):60-64.
14. Shomon M. Soy and the thyroid: a look at the controversies. Verywell, April 25, 2017. <https://www.verywell.com/soy-and-the-thyroid-3231800>.
15. Nakamura Y, Ohsawa I, Goto Y, et al. Soy isoflavones inducing overt hypothyroidism in a patient with chronic lymphocytic thyroiditis: a case report. *J Med Case Rep* 2017;11:253.
16. U.S. Food and Drug Administration. Statement from Susan Mayne, PhD, on proposal to revoke health claim that soy protein reduces risk of heart disease. October 30, 2017. <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm582744.htm>.
17. Klein I, Danzi S. Thyroid disease and the heart. *Circulation* 2007;116(15):1725-1735.
18. Trentini D. Is your thyroid KILLING you? Heart disease. Hypothyroid Mom, January 7, 2013. <http://hypothyroidmom.com/is-your-thyroid-killing-you-heart-disease/>.
19. Dehghan M, Mente A, Zhang X, et al. Associations of fats and carbohydrate intake with cardiovascular disease and mortality in 18 countries from five continents (PURE): a prospective cohort study. *Lancet* 2017;390(10107):2050-2062.
20. <https://www.hormonesbalance.com/articles/how-is-a-low-fat-diet-impacting-your-thyroid/>.
21. Schuette K. Recovery from a low-carb diet. *Wise Traditions* 2016;17(3):19-24.
22. Iwakura MR. Low carb high fat diets and the thyroid. <http://perfecthealthdiet.com/2011/08/low-carb-high-fat-diets-and-the-thyroid/>.
23. Schoenfeld L. Is a low-carb diet ruining your health? Chris Kresser, August 26, 2014. <https://chriskresser.com/is-a-low-carb-diet-ruining-your-health/>.
24. Paleo Leap. Meet your thyroid: a paleo introduction. <https://paleoleap.com/thyroid-a-paleo-introduction/>.
25. Brossaud J, Pallet V, Corcuff J-B. Vitamin A, endocrine tissues and hormones: interplay and interactions. *Endocr Connect* 2017;6(7):R121-R130.
26. Cross D. The fluoride fantasy: what the American CDC fluorosis data really mean. UK Councils Against Fluoridation, December 8, 2010. http://www.ukcaf.org/what_the_cdc_fluorosis_data_really_show.html.
27. Fluoride Action Network. Fluoridation chemicals. <http://fluoridealert.org/issues/water/fluoridation-chemicals/>.
28. Grandjean P, Landrigan PJ. Neurobehavioural effects of developmental toxicity. *Lancet* 2014;13(3):330-338.
29. Sarkar C, Pal S. Ameliorative effect of resveratrol against fluoride-induced alteration of thyroid function in male wistar rats. *Biol Trace Elem Res* 2014;162(1-3):278-287.
30. Basha PM, Rai P, Begum S. Fluoride toxicity and status of serum thyroid hormones, brain histopathology, and learning memory in rats: a multigenerational assessment. *Biol Trace Elem Res* 2011;144(1-3):1083-1094.
31. Singh N, Verma KG, Verma P, Sidhu GK, Sachdeva S. A comparative study of fluoride ingestion levels, serum thyroid hormone and TSH level derangements, dental fluorosis status among school children from endemic and non-endemic fluorosis areas. *Springerplus* 2014;3:7.
32. Centers for Disease Control and Prevention. Fluorosis. https://www.cdc.gov/fluoridation/faqs/dental_fluorosis/index.htm.
33. Kellman R. The thyroid-autism connection: the role of endocrine disruptors. <http://nancymullanmd.com/pdf/TheThyroidAutismConnection.pdf>.



MORE WONDERFUL VENDORS AT WISE TRADITIONS 2017

LEFT: Sandeep Agarwal and his wife Nalini at Pure Indian Foods; we enjoyed his donated ghee at several meals.

RIGHT: Carmen Hagen explains the high mineral content of Baja Gold salt.



LEFT: Andrea Uckele with Healthy Goods—offering a variety of personal care and other useful products.

RIGHT: Andrew Gardner shows off tallow-based healing balm at Vintage Traditions.



The Wise Traditions Pantry

HELP FOR THE FAMILY DEALING WITH CHRONIC ILLNESS

By Maureen Diaz

Today, it seems hardly a family escapes some form of potentially debilitating chronic ailment, be it an autoimmune disorder, diabetes, digestive ailments, food allergies or, increasingly, cancer. Dealing with such illness on a day-to-day basis can be extremely stressful for the entire household, but especially for the mom, who is often the one to take charge of her family's meals and health.

Our family has had to face several rounds of serious illness, including Lyme disease, rheumatoid arthritis and severe gut issues. In each case, we have chosen to treat the condition primarily with dietary changes, making adjustments to our otherwise quite excellent traditional diet. We implemented these changes after carefully considering the family's overall needs and desires. Although this path was sometimes difficult, we developed strategies that worked well for us. I hope our experience can furnish inspiration and ideas for other families who may be encountering similar challenges.

ONE DIET FOR ALL?

It is my opinion that no illness or health problem, whether acute or chronic, can be overcome without first seriously addressing dietary changes. The changes might be as simple as adding fermented foods to the diet or eliminating irritants such as conventional dairy products, commercial vegetable oils or grains. Dietary changes can be of great benefit to the entire family and may bring about unexpected results for other family members besides the one suffering the illness.

Although feeding the whole family the same restricted or special diet can work in some situations, an across-the-board approach will sometimes be met with resistance, particularly from children. Moreover, some family members may actually need the nutrients that would be

lost with a more restrictive diet. In many cases, therefore, the diet of the affected person may need to be quite different from that of the rest of the family. That does not mean that it is impossible to change out some ingredients for family meals in such a way as to satisfy and nourish everyone. For instance, if gluten is a problem, it is very easy to substitute spaghetti squash or soaked or sprouted brown rice for traditional pasta. Cauliflower "rice" is also a wonderful substitute when it is necessary to eliminate all grains for a time (as with the GAPS diet, Specific Carbohydrate Diet, or Paleo Autoimmune protocol). Pulverized pork rinds work very well in place of bread crumbs in many recipes. This substitution is my go-to for dishes such as meatloaf or as a topping for casseroles. I simply toss the pork rinds into my food processor and process for a few seconds to reduce them to crumbs.

When it is necessary to avoid dairy, coconut milk or cream are delicious replacements. It is possible to whip coconut cream like heavy cream and also culture it for yogurt. Ghee is nearly always a good replacement for straight butter. Some people may want to try to include a small amount of twenty-four-hour, cultured, full-fat raw yogurt every day. Once the individual tolerates the yogurt well, adding extra raw cream can make it even better.

Often those suffering with arthritic conditions, as my husband does, may benefit from eliminating grains (even when properly prepared), as well as sugars (other than raw honey), all non-traditional fats and nightshades (tomatoes, potatoes, eggplant, peppers). When we make meals that normally contain any of these, I remove a portion for my husband before I add the offending ingredients (such as tomatoes in chili or sauce). In this way, he can enjoy a meal that is similar to what the rest of us are eating

It is my opinion that no illness or health problem, whether acute or chronic, can be overcome without first seriously addressing dietary changes.

Fermented foods such as sauerkraut and especially beet kvass are generally fantastic for healing and detoxifying.

and I do not have to prepare an entirely separate dish. In such cases, I might add stock and sour cream instead of the tomatoes, and use thinly sliced zucchini in place of lasagna noodles. (A “spiralizer” is a useful kitchen tool for making “pasta” from vegetables—a real blessing in the kitchen.)

I do the same with desserts. The kids can enjoy panna cotta, flan, ice cream, cake or cookies made with maple syrup or coconut sap sugar and sprouted grains, but my husband cannot. For him, I use a small amount of raw honey or monk fruit and use grain- and starch-free flours that I make myself. Many delicious desserts are possible—even without sugar, grains and cream—and there is often no need to make separate versions.

HEALING FOODS

Many ailments, including diabetes and cancer, can improve considerably with a low-carbohydrate diet. An easy way to accomplish this is to increase the intake of beneficial fats such as butter, cream and full-fat yogurt from grass-fed animals, as well as coconut oil, lard and olive oil. With adequate fats, vegetables can replace foods high in carbs and starches and accompany high-quality proteins such as eggs from pastured hens, grass-fed and grass-finished beef and pastured pork. Wild-caught seafood can also be a great addition to the healing diet,

and I often use it in chowder for a very satisfying and nutritious meal.

Fermented foods such as sauerkraut and especially beet kvass are generally fantastic for healing and detoxifying. It’s ideal to consume a little sauerkraut at each meal, even if only the juice. While in the healing phase of his illness, my husband started every morning with three ounces of beet kvass which I made with plenty of garlic for an even more powerful tonic. This is a great way for any of us to start the day, whether we are ill or not! When an intestinal bug is making its way through the household, the juice of kimchi, sauerkraut or other ferments is a sure way to chase the bug away. (It can be important to go easy, however, because a little goes a long way; everyone may need to stay close to a bathroom for a time.)

“Fire water” is another excellent ferment to keep on hand to chase away the “beasties” and facilitate healing of chronic illness. It is a simple ferment of garlic (one to two heads per quart), ginger (to taste), a yellow onion or two, a jalapeño or cayenne pepper, horseradish (optional) and salt (one tablespoon per quart). There are no hard-and-fast rules as to the quantities of each ingredient. Simply chop up and toss together all of the ingredients, place them in a jar, add enough filtered or spring water to cover and allow to ferment on the counter for five to seven days, “burping” the jar if not using an airlock.

MAUREEN’S BASIC “MEDICINE” CABINET

- Liposomal or buffered vitamin C (I use Perque Potent C Guard)
- Green Pastures fermented cod liver oil
- Fire water
- Hydrogen peroxide (3%)
- Colloidal silver
- Lugol’s iodine (5%)
- Dimethyl sulfoxide (DMSO)
- Activated charcoal or bentonite clay (for upset stomachs and food poisoning; also excellent for burns)
- Epsom salts
- Clear/empty vegetable capsules (for filling with essential oils or powdered products)
- Essential oils (peppermint, oregano, chamomile, tea tree, lavender and rosemary)
- Aloe vera
- Raw honey
- Garlic
- Ginger
- Homeopathic remedies such as *Arnica montana* (great for traumatic injuries and bruises), *Ledum palustre* (for insect bites or as part of some Lyme disease protocols), *Sulphur* (skin problems) and *Apis mellifica* (bee stings or conditions involving swelling)

As little as two teaspoons per day of the resulting juice can go far to help cleanse and heal the digestive system.

Fire water is equally useful as a seasoning for meals. It can be helpful to keep it close to one's herbs and spices to add to salad dressings, soups and other savory dishes.

In severe cases where one's ability to eat anything at all is compromised, meat stock and/or a modified version of WAPF's homemade baby formula are very nourishing and promote healing. These can even be offered in a GI tube when oral feeding is impossible. Also remember cod liver and coconut oils, and use extra liposomal vitamin C to aid healing and combat infection.

REMEDIES

In addition to diet, our household employs a variety of nutritional supplements and herbal and homeopathic protocols. We keep several items in our "medicine cabinet"—a drawer in our pantry—for regular preventive use and also as the need arises. These include vitamin C, fermented cod liver oil products, colloidal silver, herbal products and essential oils (see sidebar p. 52).

It can be helpful to create and print charts

to place in plain view on the refrigerator or the inside of a cabinet door. These charts can list the person's supplements or products, dosages, time of day, whether to take with or without food and so forth, as well as including checkboxes to keep track of doses taken (see sample chart below). Without such a visual aid, it can become overwhelming to keep up with everything needed! This strategy was a life-saver when my husband was recovering from his chronic Lyme disease and rheumatoid arthritis. In addition to placing a chart on our refrigerator, I also printed copies for him to take to work, as he was often away for many days at a time.

I did the same for my father when helping him through his cancer diagnosis. Initially, he felt overwhelmed with his supplements, prescriptions and herbals, but my chart made his regimen very doable. I even prioritized each of the components on his chart with color coding, as he often literally could not stomach everything suggested for him.

Some prescriptions or supplements need to be taken early in the morning or before bed. For these, I keep a dish with a few pills on our bathroom vanity to make it easier to remember to take them. This may not be wise if little fingers are able to reach a potentially dangerous pill or supplement, so exercise good judgment.

REST, SWEET REST

It is important to remember that one key component of any healing protocol is rest. Without this, the body will take far longer to heal—if it can even heal at all. If it is mom who is experiencing a health crisis, it helps for the children to learn to help with daily chores such as cooking and cleaning. Even toddlers can be taught to put their things away. The family also can learn to simplify meals and tolerate messes.

Make sure there is a quiet space—a refuge—where the ill family

SAMPLE CHART FOR SUPPLEMENTS AND REMEDIES

Remedy and Dosage	Morning (empty stomach)	Breakfast	Mid-morning (empty stomach)	Lunch	Mid-afternoon (empty stomach)	Dinner	Bedtime
Liposomal vitamin C (1 tablespoon)	X						X
Fermented cod liver oil (1 teaspoon)		X					
MSM (1/2 teaspoon)		X				X	
Wild teasel (30 drops)	X		X		X		
Enzymes (2 tablets)	X		X		X		
Monolauric acid (1 scoop)		X		X		X	
Homeopathic <i>Ledum</i> (5 pellets)			X		X		
Low-dose naltrexone (1 tablet)							

member can escape for as long as needed, even for days, weeks or months. It can be healing to make calming music or audio books available and helpful to enlist the help of other family members and friends. Above all, be mindful and understanding of the family member who needs rest for recovery, and try to create a happy, calm environment for as long as it takes. This is always desirable anyway and makes for a happy life!


FINDING JOY

Let's not overlook the fact that a joyful heart eases all burdens. In a home filled with strife, there is no rest and often no healing. It is important to find ways to keep the atmosphere happy, whether with music, playfulness or cooperation. Other simple measures to foster joy can include turning off the television and taking out a board game; reading a favorite book to one's loved one; taking the person who is healing outside in the sunshine; enjoying the birds, the breeze and nature; having meals outside at a picnic table or on the lawn; and opening up the blinds and letting the light in. The healing rays can brighten up any room, any day and every life!

CARE FOR THE CAREGIVER

When I was in the thick of caring for my very ill husband, people often reminded me to take time to care for myself, too. Initially, my response was to brush this suggestion off; after all, I was the one who was well! But as the weeks and months passed, with little sleep and even less relaxation or enjoyment, I began to appreciate what these wise well-wishers meant. Caring for others is rewarding but can be exhausting. It can rob caregivers of sleep and life's pleasures and even have a deleterious effect on their own health. One can quickly become burned out under this kind of stress. In my case, I was very stubborn and rarely accepted help from others until a wise woman gave me this piece of advice: refusing offers of assistance robs others of the blessing and pleasure they would derive from helping, and it would be better for everyone if I could swallow my pride and accept the help. This freed me of the guilt I associated with needing help.

Recognizing that caregivers need to take a break now and then, strategies include asking someone to give the caregiver a few hours' or a day's relief to get out to do something they enjoy, or asking others to occasionally help with laundry or to bring a meal. For meal help, it is good to offer a list of the ingredients and even a recipe to ensure that the meal meets the family's dietary and healing requirements. Most people will be agreeable to this and may even be pleased to learn something new.

Whether the healing journey is brief or long, we should strive to enjoy and cherish the life we've been given for as long as we have it. And we should always let those we care about know of our love for them! 

GRAIN-FREE AND DAIRY-FREE RECIPES

GRAIN-FREE FLOUR MIX

4 cups crispy nuts, processed to a fine crumb in a food processor
2 cups full-fat coconut flour
2 tablespoons ground chia seeds
2 tablespoons baking powder (optional)
1 1/2 teaspoons salt (optional)

This flour mix is suitable for the Gut and Psychology Syndrome (GAPS) diet, the Specific Carbohydrate Diet (SCD) and the Autoimmune Paleo (AIP) diet. For a ready-to-use baking mix, add the baking powder and salt to the mix. Keep refrigerated.

DAIRY-FREE GAPS-FRIENDLY COCONUT ICE CREAM

1 teaspoon gelatin
1 cup full-fat coconut milk
2 raw egg yolks
1 cup coconut cream
1/4 cup honey
2 teaspoons vanilla extract

In a small, heavy saucepan, sprinkle the gelatin over the coconut milk and let soften for 5 minutes. Gently simmer, stirring constantly, until all of the gelatin is dissolved. Turn off heat. Whisk the egg yolks into the coconut cream and add the egg yolk-coconut cream mixture to the coconut milk. Add the honey and vanilla extract. Place in a glass container, covered, in the freezer. Stir every 30 minutes until frozen (about 2-3 hours).

Homeopathy Journal

DR. HAHNEMANN AND DR. PRICE:
A COMBINED APPROACH TO RESOLVING THYROID PROBLEMS
By Joette Calabrese, HMC, CCH, RSHom (NA)

Many years ago, a female client in her mid-thirties who was a mother of two came to me with a case of severe fatigue. During our initial discussion, she told me that when her doctor had checked her thyroid in an effort to diagnose her condition, he had noticed some borderline-low thyroid indicators in her blood tests. With further examination, he discovered that she had about nine nodules on the thyroid gland. (A thyroid nodule is a lump, most often benign, caused by abnormal growth of thyroid cells.)

Upon hearing this, I told her about homeopathy's use of *Bromium* 6C or 6X and *Natrum muriaticum* 6C or 6X for cases of thyroid nodules. (At the time, I didn't have a specific protocol for thyroid nodules. I do now, and it's actually very similar to what I used back then: *Bromium* 6C twice daily and *Thuja occidentalis* 30C, twice daily.) Not long after the woman started taking the remedies, she stopped consulting with me. One year later, however, she returned to discuss a concern regarding her son. While there, she mentioned, "You know, I've been taking that *Bromium* and *Natrum muriaticum* every day for a year." (Here, parenthetically, is where I freaked out, because at that time I still practiced classical homeopathy, which advises stopping a homeopathic medicine after taking a few doses or, in some instances, a single dose.) My client smiled and said, "I don't have the fatigue anymore, and when I went back to the doctor, the nodules were gone."

In this client's estimation, it took a year for the remedies to act fully. Since that encounter, I have come to recognize that it can, indeed, take a long time when using homeopathy for a chronic condition. However, a lengthy time frame does not mean that we are not moving along steadily toward our goal. And whereas this particular thyroid condition may have required a year, this is not true for *all* conditions and individuals.

HAHNEMANN'S RESEARCH

In the late 1700s, Dr. Samuel Hahnemann, universally recognized as the "Father of Homeopathy," gathered data to understand which homeopathic medicines were capable of curing specific diseases. He conducted double-blind studies to produce unbiased results, which he called "provings." This is how Hahnemann developed the first crucial pieces of his homeopathic *Materia Medica* (which is Latin for "medical materials"). Nowadays, other *Materia Medica* exist as well—all of which offer homeopathic reference guides that list homeopathic remedies and provide detailed indications on how to use them.

The subsequent two-and-one-half centuries since Hahnemann's time have seen further provings by other medical institutions as well as contributions from clinical evidence showing that certain homeopathic medicines consistently demonstrate a verifiable effect in uprooting diseases related to specific organs. For example, over the years, it has become clear that *Bromium*, *Thyroidinum* and *Iodum*² (as well as *Lycopodium clavatum*, *Thuja occidentalis* and *Natrum muriaticum*) are the remedies most frequently associated with correction of the thyroid gland, including nodules.

FREQUENCY AND POTENCY

Since Hahnemann's time, determining which potency and frequency are best has been a matter of discussion within the homeopathic community. In my own practice, I learned a number of interesting things during the long break between my two professional interactions with the aforementioned client. Had she given me the opportunity to meet with her more regularly after I first recommended the two remedies for her fatigue and thyroid nodules, as a then-classical homeopath I likely would

It can, indeed, take a long time when using homeopathy for a chronic condition. However, a lengthy time frame does not mean that we are not moving along steadily toward our goal.

have told her to stop using the remedies after taking a few doses. Over the ensuing decades, however, as I have used established homeopathic protocols and also learned from my own experience, I now recognize that “No, we were not done yet.” Just because her fatigue had improved did not mean that we couldn’t get more out of this homeopathic remedy combination. Hence, my client was wise to continue taking the *Bromium* and *Natrum muriaticum* for a year (at least in the case of treating her thyroid nodules).

In retrospect, after a year I might have considered stopping the remedies for a while to observe the client’s condition. If we witnessed signs of regression—such as hypothyroidism creeping back, a recurrence of fatigue, resumed thinning of the hair, the skin on the shins becoming dry or the disappearance of the lateral third of the eyebrow—I would then surmise that it was time to resume the medicines.

Today, after my many years of experience, I generally find it wiser for someone to stay on their remedy until the condition completely clears. It’s certainly not a bad practice to stop and assess the situation, but with a condition like thyroid nodules, conventional and routine tests are not always possible. As long as the remedy is acting (even if in just a small way) and we are seeing progress, why not carry through to the end? My attitude is, “Let’s get as much out of this as we can.” Sometimes it’s okay to be greedy, particularly when it comes to our personal health and well-being.

BRINGING FOOD INTO THE PICTURE

Hypothyroidism is, by definition, the slowing of the metabolism. This can be a protective function of the body in response to nutrient deficiencies—the body’s attempt to conserve resources, if you will. If the body is not getting enough food in general or, more particularly, enough of a certain nutrient, the body will slow down to ensure that energy demands are not surpassing energy supplies.

One of the things I love about the Weston Price approach to diet is that it provides all the dietary advice one needs to support healthy thyroid function. For example, Dr. Price emphasized the importance of nutrient-dense foods, organ meats and traditional “sacred” hormone-supporting fertility foods, all of which are very important to the thyroid.

There is one aspect of Price’s wisdom that people frequently over-

look: the therapeutic diets he prescribed for his patients were balanced and varied. Not straying too far from healthy fats or carbohydrates can be especially important for those with thyroid problems. Eating a variety of nutrient-dense foods helps ensure that our bodies receive the assorted minerals, vitamins, enzymes and other essentials needed to support good thyroid health.

Dr. Price wrote in *Nutrition and Physical Degeneration* (p. 419):

One of our modern tendencies is to select the foods we like, particularly those that satisfy our hunger without our having to eat much, and, another is to think in terms of the few known vitamins and their effects. The primitive tendency seems to have been to provide an adequate factor of safety for all emergencies by the selection of a *sufficient variety and quantity* of the various natural foods to prevent entirely most of our modern affections [emphasis added].³

In terms of consumable fats, we know that Price discovered that traditionally defined healthful diets were relatively high in saturated fats and very low

in polyunsaturated oils. This, in particular, is important for those suffering from thyroid disorders, because numerous studies have shown that polyunsaturated oils actually suppress thyroid function.⁴

People who are eating traditional foods and dealing with thyroid issues have found it helpful to support their thyroid health by including fish heads (which contain iodine and vitamin A) in their diet in the form of fish broth⁵ and making chicken neck soup (which contains thyroid glands).⁶ However, a precaution is in order concerning iodine, which seems to alleviate hypothyroidism in some cases yet aggravate it in others.⁷




Sometimes a collision of ideas can be fruitful. Together, Drs. Price and Hahnemann create a perfect recipe for a healthy lifestyle.

TWO WISE MEN

Both Dr. Hahnemann and Dr. Price were undeniably wise. Although Hahnemann depended most fully on the homeopathic medicines he meticulously researched, developed and catalogued, he also was an advocate of eating whole foods and particularly lauded the value of cheese. Price, in turn, was not about strange, unusual or convoluted dietary measures. Instead, the foods Price chose for children suffering from dental crises were nutrient-dense but quite normal—milk, cheese, bread, butter, stew, oatmeal—dare I say, comfort foods?—plus cod liver oil.

Food can act as medicine, but it's certainly not all our food provides us. Food is pleasure, comfort and energy—something meant to be shared with family, a focal point of sit-down dinners and a joyous centerpiece of treasured holiday celebrations. Food is the most important

way we nourish not only our bodies but also our souls.

For my family and me, food plays many roles, only a part of which is medicine. That's because we have at our disposal a therapy that is pure medicine: homeopathy. Perhaps that is why I can afford to feel relaxed and carefree about food. Indeed, we needn't micromanage our diet because, when addressing health issues, homeopathy has a well-deserved reputation for doing the heavy lifting so that we may sit down and simply enjoy our meals. Although homeopathy and traditional foods represent two diverse principles, when combined, they undergird an impeccable approach for returning to and sustaining robust health. 

Joette Calabrese, HMC, CCH, RSHom(NA) is a homeopathic practitioner of twenty-plus years who has successfully used homeopathy to address conditions including food intolerances, allergies, asthma, endocrine disorders, female conditions and childhood illnesses. For more information, check out the exciting and enjoyable "Free Resources" section of Joette's website at joettecalabrese.com/free-downloads-and-articles/. Visit Joette's free blog to find homeopathic solutions to common ailments at JoetteCalabrese.com.

MORE FUN AT WISE TRADITIONS 2017



South Dakota chapter leaders Mary Walkes, Elsa Vande Vegte and Crystal LaBrake.



DC chapter leader and WAPF podcast host, Hilda Labrada Gore, entertains with her guitar at the chapter leader meeting.



One of almost one thousand enthusiastic participants in Wise Traditions 2017.



WAPF staff Agnes Bunagan and executive director Kathy Kramer enjoy all-raw cheesecake at the Saturday lunch.

Technology as Servant

THE CHICKEN: A BRIEF HISTORY OF AMERICA'S MOST CONSUMED MEAT

By John Moody

A prediction made in the 1940s—that chicken would become “meat for the price of bread”—has come to pass.

Fifty years ago, chicken found its way to the dinner table once a week at most, and often even less frequently as a special occasion meal. How, in under five decades, did chicken go from being the most expensive meat to the least expensive? What happened that took the chicken from Sunday dinner to the “dollar menu special”? Let’s take a look at how science and technology transformed chicken into America’s most consumed meat.

ONCE UPON A CHICKEN

For most of American history, poultry and eggs were luxury foods. Chicken traditionally was far more expensive than beef or pork—after all, you needed grain to feed chickens, but cows could grow on grass and pigs could grow on garbage. For the first half of the twentieth century, the average person ate twenty pounds of chicken or less per year (approximately six chickens). By 1964, chicken had become more of a sta-

ple and people were consuming over a half pound per week—up to twenty-five to thirty pounds per year.¹ Since then, we have continued to increase our chicken consumption almost every single year. As a result, chicken is now the number-one meat in the nation, with the average person consuming an estimated two pounds per person per week,² or roughly one hundred pounds (thirty chickens) per year. In 2015, the average household ate chicken three to four times per week.

In 2016, America’s poultry industry produced over nine billion chickens. If the state

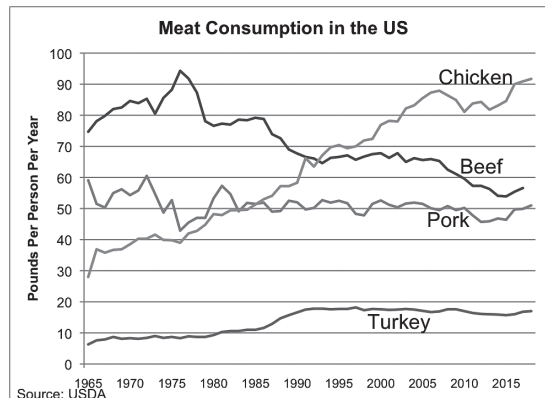
of Georgia were its own country, it would rank as the fourth-highest country in the world for poultry production. As a result of this large-scale production, chicken has become the most affordable animal protein source at the grocery store, at times on sale for less than one dollar per pound. In contrast, beef and pork sell for around three to four dollars per pound. A prediction made in the 1940s—that chicken would become “meat for the price of bread”—has come to pass.³

A CHICKEN’S LIFE FOR ME

A lot had to change for chicken to become such a production powerhouse. Up until the mid-1900s, the majority of chickens were raised in small flocks (one to three hundred birds) on small family farms. When old laying hens retired, they became “stewing hens.” Excess young males were sold as “spring chickens.” With very little breast meat, neither of these resembled the chick-

ens we cook today. The stewing hens were tough and required long, slow cooking to make them palatable. The spring chickens, although easier to prepare, produced a paltry two to two-and-a-half pounds of dressed bird for the dinner table. Both were extremely expensive.

On the family farm, chickens provided, at best, a little bit of side money for a farmer’s wife and kids, but the farmer certainly never considered them an enterprise of economic significance. In part, this was because mortality for chickens was high. Reduced winter forage, predation and other problems made for



a tough life, especially in colder climates. One of the main problems was nutritional. Chickens develop health and disease issues during dark, cold days with scarce food. Heated coops and mountains of nutritionally fortified purchased feed were not the norm.

The 1920s ushered in a sea change for the American chicken. Scientists who were just beginning to unravel the world of nutrition discovered vitamins A and D. For a time, cod liver oil became a mainstay of the chicken's supplemental diet, and mortality rates dropped. The incubator, invented a few decades before, also began facilitating the creation of hatcheries across the country. Incubators could (and did) supply larger and larger numbers of chicks, displacing the erratic and unpredictable on-farm replacement flock approach.⁴ The stage was set to transform chicken production from a small-scale side enterprise into something more economically substantial, and that is just what Cecile Steele of Delaware did.

STEELE CHICKENS

Cecile Steele holds a dubious but important place in poultry history for creating commercial poultry production. In 1923, she ordered fifty chicks, but the company sent five hundred by accident! She decided to keep them all, raising them specifically as meat birds.⁵ Things went so well that year and in subsequent years that by 1926, Steele had built a barn to house ten thousand birds. Two years later, she raised almost thirty thousand. Industrial chicken was born, and it quickly boomed. A decade later, Delaware alone produced seven million broilers per year.⁴ Although Steele's chickens were tiny things, weighing only around two pounds, people loved them, even with their relatively high price tag. In today's money, Steele fetched a profitable five dollars per pound for that first batch of five hundred chickens. Such high profits and prices would not last long, however, and the steady decline in chicken prices soon began.⁴

The changes that Steele and others made to chickens' housing conditions required significant changes to almost everything about a chicken's diet and life. No longer able to forage, chickens became dependent on artificial food. The timing was right because soy was beginning to provide a standardized, cheap, high-protein feed perfect for confined chickens. Founded in 1919, the American Soybean Association was very happy to have soy become, along with corn, the backbone of the burgeoning confined poultry production model.⁶

Although the poultry production system was starting to solidify, it would take two more decades for everything to come together and for

chicken to truly take off. What was needed was the "Chicken of Tomorrow" and the tools to keep it alive. The meteoric rise of the industry that followed is rivaled only by the gargantuan size, never before seen, of the chickens that would result.

ANTIBIOTICS:

BACKBONE OF BIG MEAT

If vitamins, soy for animal feed and similar advances set the stage for raising chickens in confinement, antibiotics stole the show. Moving animals off pasture and into densely populated barns created disease

pressure. Artificial nutrition and supplementation could offset only a portion of this extra stress. In addition, as production increased, prices dropped, which put immense pressure on farmers to raise more with less—less space, fewer costs, less care. Questions arose about how far the industrial system could be pushed and how much chicken it could produce.

A scientist named Thomas Jukes discovered the solution to these problems: antibiotics. Working at a research facility for Lederle in the 1940s, Jukes was fixated on figuring out what would allow chickens to flourish in confinement. It was a pressing question—two world wars (with one still ongoing) had produced an incredibly high demand for protein. Although chicken production had increased immensely in

The birds given the greatest amount of antibiotics gained the most weight. In this way, antibiotics became the backbone and constant companion of modern meat production.

DO NOT SELL LAYING HENS

Save the 30 Eggs—or more—laid by the average hen from February to May

Don't sell the laying hen—all spring she will be turning insects, weeds, garbage, and waste into eggs for the Nation

<p>Make 60c. per hen</p> <p>These 30 eggs at 24 cents a dozen mean an income of 60 cents per hen—practically all profit, no loss on the farm at this season receive little if any special feed.</p>	<p>2c. a lb. or 2c. an egg?</p> <p>What if poultry sometimes bring 2 cents more a pound in winter than after the laying season—you would lose only 8 cents on a 4-pound hen, but make 60 cts. on her eggs—gain 52 cts.</p>
--	---

IT'S BOTH PATRIOTIC AND PROFITABLE TO KEEP THE LAYING HEN
U. S. DEPARTMENT OF AGRICULTURE
Cooperating with State Agricultural Colleges

This incredible increase in yield created a large chicken but also gave rise to an equally large problem. How to convince people to eat more chicken became the new challenge.

just twenty years, chickens did best on vitamin-rich fish meal and other animal byproducts that were too scarce and expensive for farmers to offer to their ever larger flocks. Chickens did poorly on the cheaper soy-based substitutes, with poor weight gain for meat birds and poor egg quality for layers.

Jukes discovered that when he added antibiotics to the feed of the chickens in his experiments, they not only performed better than the other groups, but they specifically gained more weight. The birds given the greatest amount of antibiotics gained the most weight. The best part was that this strategy was cheap, adding less than a penny per pound of animal feed yet producing 25 to 50 percent gains in animal weight.³ In this way, antibiotics became the backbone and constant companion of modern meat production.

THE CHICKEN OF TOMORROW

All the pieces were now in place for chicken to shake off its “Sunday dinner” image and become the meat of choice across the country. All, that is, except the chicken itself. The birds had enjoyed a dramatic increase in weight, but they were still mostly dark meat and continued to require a great deal of preparation. Despite its continuing plunge in price, chicken was still not the first choice of the average housewife and not quite what the American family was looking for.

In the 1940s, the United States Department of Agriculture (USDA) organized a contest entitled “The Chicken of Tomorrow.” It was perhaps the greatest effort ever put forth by the meat industry, involving government agencies, scientists, colleges, researchers and volunteers from across the country. What was the con-

test’s goal? The goal was to achieve “One bird, chunky enough for the whole family—a chicken with breast meat so thick you can carve it into steaks, with drumsticks that contain a minimum of bone buried in layers of juicy dark meat, all costing less instead of more.”³

The contest winners duly delivered a chicken that was 40 percent heavier than the standard chicken (reaching a total of three and a half pounds, a full pound over the average at the time) in just eighty-six days from egg to contest’s end. This was only the beginning of the chicken’s unprecedented growth, however. Today, chickens from those same blood lines reach six pounds in under seven weeks and do so on half the amount of feed per pound of flesh. Three times the amount of meat in half the time for half the feed represents an almost unimaginable achievement. Through careful, highly secretive breeding and cross-breeding, the “chicken of tomorrow” had finally arrived.

This incredible increase in yield created a large chicken but also gave rise to an equally large problem. The chicken market was glutted, eerily foreshadowing what industrial farming would do time and time again with supply outpacing demand. However, farmers responded by raising more, not less, of the unneeded item. If farmers were not going to raise fewer chickens, people were going to need to eat more. How to convince people to eat more chicken became the new challenge.

As events unfolded, the chicken glut became an opportunity for modern marketing and for food processing gold. The poverty and deprivation of the war years turned into the prosperity and indulgence of the fifties and sixties and transformed American eating and

INDUSTRIAL EGGS

Many people once considered eggs a special treat. Historically, hens produced fewer eggs, and many of those were reserved for hatching to replenish the flock. Eggs also were generally only available seasonally. People were amazed when Laura Ingalls Wilder was able to get her chickens to lay during winter in the 1910s. This feat was so spectacular at the time that it played a crucial part in her writing career.¹¹ Wilder’s success came from basic science: she watched how what she fed her chickens influenced their condition, until she found a balanced diet that provided all the nourishment the birds needed without causing them to gain excess body weight and stop producing eggs.¹²

Like industrial chicken, mass-produced eggs have become a mainstay of the American diet.¹³ By 1960, the average American was consuming around two hundred and sixty eggs a year or more, almost an egg a day. Laying hens have had to keep up, and they have, increasing production from less than one hundred eggs per bird per year to almost three hundred in the course of a half century.

cooking habits. Refrigerators, packaged baking mixes and all sorts of processed foods flooded the market. Chicken was not only the first meat to benefit from advances in nutrition and the application of antibiotics to animal production (along with an immense infusion of government resources and research), it also was the first meat to become the mainstay of the processed food products heavily marketed to the American people. Slick marketing convinced people to adopt these new items en masse, including an array of processed chicken products. It made only too much sense at the time—an animal living in an artificial environment and being fed artificial foods and nutrients would become the processed, artificial meat food for the masses.

THE MOST DANGEROUS MEAT

Chicken's ascent to the top of the American diet did not come cheaply. Government involvement in the industrial production of chicken continued long after the "Chicken of Tomorrow" contest ended. The main feed stuffs for chicken—corn and soy—still enjoy multibillion dollar per year government subsidies. The USDA recently announced that 2016 payments under the Price Loss Coverage (PLC) and Agricultural Risk Coverage (ARC) program totaled eight billion dollars.⁷ This is just one of many subsidies and support programs that industrial food and meat producers enjoy at the taxpayer's expense. Total subsidies, direct and indirect, may well run into the tens of billions of dollars per year.

With all these subsidies, one would think that chicken producers wouldn't need to cut corners. This could not be further from the

truth. Most store-bought chicken is bulked up even further through "brining"—injecting the meat with a salt-water mixture. Studies have found that this cheap mixture represents almost one-fifth of store-bought chicken by weight.⁸ Processed chicken products (tenders, nuggets and the like) are even worse, containing fillers, additives and extenders that sometimes comprise up to half the finished product's weight.

Chicken's low cost at the store hides a high price tag in terms of health. The mass production of chicken (as well as pork and, to a lesser extent, beef), has unleashed a microbiological war. Although antibiotics quickly became an industry crutch in both "growth promotion" and "mortality reduction," as early as the 1950s—and following close behind "the chicken of tomorrow"—the problem of antibiotic resistance began to emerge. The meat industry has largely ignored the overwhelming evidence that the blanket use of antibiotics has led to widespread antibiotic-resistant pathogens in our food and environment. Until recently, the industry stubbornly resisted any limitations or changes to a system that costs additional hundreds of millions if not billions per year and kills tens of thousands of consumers. As of 2014, over fifty thousand deaths per year were caused by antibiotic-resistant infections in the U.S. and Europe.⁹

In fact, *Consumer Reports* has found that the average mass-produced chicken in the U.S. is a pathogenic bacterial bomb waiting to happen, with only one in three chickens tested by *Consumer Reports* free of pathogenic bacteria.¹⁰ For years, the U.S. Food and Drug Administration (FDA) has railed over raw (unpasteurized) milk,

The average mass-produced chicken in the U.S. is a pathogenic bacterial bomb waiting to happen.

ONGOING PROJECTS SHARING THE BENEFITS OF A WAPF DIET FOR GROWING CHILDREN


Johanna Keefe, PhD (C), MS, RN, GAPS/P is completing a doctoral thesis through the California Institute of Integral Studies' Transformative Studies program. Her work reveals, with in-depth interviews, the lived experiences of a small sample of women who have chosen, as mothers, to follow a nutrient-dense diet based on the research of Dr. Weston A. Price. While her interviews are now completed and she is in the analysis phase of her writing, Johanna wishes to continue with post-doctoral work by gathering a larger sample of stories, especially from mothers who have watched their children grow over time on a traditional diet. In her effort to reach the widest audience and to inform young women of childbearing age, her future vision may include a published collection of stories and possibly a film, to enlighten the hearts of our future parents and grandparents. To this end, Johanna has conceived of a research blog, Growing Success Stories, to invite just such parents to connect with her vision by sharing their story. If you are such a mother, please consider visiting <https://growinguccessstories.org/>. Johanna looks forward to hearing from you through email at jmkeefe@endicott.edu, or by phone at (978) 290-0266. Thank you! Together we will contribute to a return of a flourishing, thriving and resilient new generation!

comparing its consumption to playing “Russian Roulette,” yet chicken is a truly dangerous food that is available in every single supermarket in America. The bacterial odds of industrial chicken consumption make Russian Roulette seem a more enticing option by comparison! In spite of clear evidence of pathogenic risks, the FDA, USDA and other government agencies have been slow to do anything substantial about this threat.

Although antibiotics were the first dangerous and environmentally deleterious growth promoter used in meat production, they were not the last. Until recently, regulators also allowed arsenic as a growth promoter in chicken feed. The FDA downplayed the use of arsenic as a problem, but the decades of arsenic use in chicken production have left large swaths of the nation contaminated, especially in areas where the immense amounts of confined chicken excrement became fertilizer for field crops.

WHY REAL CHICKEN

There is a great deal more to the story of chicken. It is a story worth understanding, because chicken, more so than any other meat in America, encapsulates our national story of food and farming. This includes the change from a decentralized, ecologically oriented system to a consolidated, industrially minded system, as well as the change from consuming natural food stuffs and forages to relying on isolated nutrients and pharmaceuticals to stave off the damaging effects of low-quality food and lifestyles.

If there is any meat for which it is worth paying a premium price, it is poultry. Few foods pose as great a danger to our health (both personal and environmental) as industrial chicken, and few foods depend as much on government subsidization and protection. Finally, few foods offer such a powerful opportunity to change the way the American food system works by voting with our forks and dollars for real farmers. 

REFERENCES

1. Kiefner J. Chickens rule in year of the rooster. *FarmWeek-Now.com*, February 24, 2017.
2. Super T. State of chicken: consumption at all-time high. *The National Provisioner*, October 24, 2016.
3. McKenna M. *Big Chicken: The Incredible Story of How Antibiotics Created Modern Agriculture and Changed the Way the World Eats*. Washington, DC: National Geographic, 2017.
4. Gordon JS. The chicken story. *American Heritage* 1996;47(5). <https://www.americanheritage.com/content/chicken-story>.
5. Martin P. The 500: how Cecile Steele began a multi-billion dollar industry. <http://broadkillblogger.org/2016/12/the-500-how-cecile-steele-began-a-multi-billion-dollar-industry/>.
6. NC Soybean Producers Association. History of soybeans. <http://ncsoy.org/media-resources/history-of-soybeans/>.
7. Clayton C. USDA: ARC-PLC payments coming: USDA announces roughly \$8 billion in farm program payments for old-crop year. *DTN/The Progressive Farmer*, October 3, 2017.
8. Burton N. Sodium use in poultry production scrutinized. *Food Safety News*, March 2, 2010.
9. McKenna M. The coming cost of superbugs: 10 million deaths per year. *Wired*, December 15, 2014.
10. *Consumer Reports*. Dangerous contaminated chicken: 97% of the breasts we tested harbored bacteria that could make you sick. <https://www.consumerreports.org/cro/magazine/2014/02/the-high-cost-of-cheap-chicken/index.htm>.
11. South Dakota Historical Society Press. Wilder's chickens. The Pioneer Girl Project, May 21, 2015. <https://pioneer-girl-project.org/2015/05/21/wilders-chickens/>.
12. Hines SW (Ed.). *Laura Ingalls Wilder, Farm Journalist: Writings from the Ozarks*. Columbia and London: University of Missouri Press, 2007.
13. Carbone J. Chicken, eggs, and the changing American diet. *Smithsonian*, April 7, 2015.

MONDAY MASTER COOKING CLASS AT WISE TRADITIONS 2017



Sally Fallon Morell holds two rockfish that eventually became fish filets with a delicious fish broth-based cream sauce. They also prepared chicken with a lemon glaze and leg of lamb with gravy, using delicious stock from Fields of Athenry.



Hardworking volunteers for the master class: Susie Zahratka, George Diaz (aka Oven Man) and Claire Viadro.

Wise Traditions Podcast Interviews

INTERVIEW WITH LINDSEA WILLON

Hilda Labrada Gore: My guest, Lindsea Willon, studied nutritional sciences and was a college athlete at the University of California, Berkeley. She also has a master's degree in kinesiology and is certified as a nutritional therapy practitioner. She is on the staff of the Biodynamic Wellness Group in San Diego. All of these experiences have helped Lindsea put two and two together to understand the importance of a nutritionally complete diet. She gives us insight into how we should fuel our bodies to stay strong and how to avoid ending up on a sugar roller coaster. She says we don't need to get "hangry" or suffer from sleeplessness or premenstrual syndrome (PMS). Lindsea, how did you get into the dietary field? I understand you were an athlete in high school and college.

Lindsea Willon: Yes. In high school, I was blessed to have a mom and a neighbor who fueled me with Wise Traditions food and the most wonderful diet a high school athlete could have. I was a wonderfully healthy lacrosse player, able to be a starter and play the whole game with no exhaustion and no injuries. It was great. In college, however, I began eating a less-than-optimal Standard American Diet in the dorm, and I quickly regressed. During the second year of eating on my own and not being very well-informed, I tore my meniscus and my MCL (medial collateral ligament) and was so exhausted after exercise that I had to nap between classes and after practices. I felt sick.

HG: You could tell the difference because you had been fed the Wise Traditions way, and suddenly you're away at college and not eating well.

LW: Absolutely. Of course, college is a totally different environment, but the biggest change was the difference in the butter that was served

and the processed food that was in the dorms. The food that I had been used to in high school was unavailable.

HG: Were you looking for that food you were used to? Or were you a typical teenager who thought, "Oh mom, what does she know?"

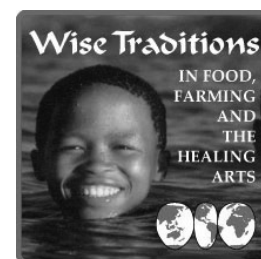
LW: I actually went to college to figure out what my mother knew. My mom became a nutritional therapy practitioner when I was in high school. I went to college to study nutrition to figure out how all that worked, but I didn't start to practice what I was preaching until later in my college years.

HG: I feel for all those college athletes who haven't been raised on a diet like yours. They've been eating badly all the time. I'm sure they were prone to injury and fatigue.

LW: Absolutely. I saw the health of my entire team improve as soon as we started to follow what I was learning and had learned from my mom. Everyone on the team improved as athletes. It was such a strong example of how important our diet is.

HG: I only wish you had taken pictures like Dr. Price did.

LW: I wish I could have documented that. I think that our junior year national championship win—after we started eating better—can be attributed to our diet. But yes, I really wish I could have interviewed all the girls and asked them how they were feeling and how much better they were once they started eating what I was making for them or after they listened to me when I said that butter was really good for them.



Hilda Labrada Gore is an enthusiastic communicator, health coach and fitness professional. She is the producer and host of the Wise Traditions podcast, which to date has over one million downloads, and also is the DC co-chapter leader for WAPF. She is passionate about wellness on every level, which is why she is known as "holistic Hilda" (holistichilda.com). She is a blogger, speaker and consultant for those who want to launch their own podcasts. She lives in Washington, D.C., with her husband, children and dog and cat.

HG: I like the fact that you can speak not only to the experience you had, but also to the science. You have studied all this deeply. As a matter of fact, you are going to be a professor in the spring, right? Tell us a little bit about what you've studied and the impact that's made on what you have to share with people.

LW: My undergraduate degree was in nutritional sciences, with a focus on biochemistry. Because of my experience playing lacrosse as a collegiate athlete and afterwards in the world of CrossFit, I decided to focus more on the kinesiology aspect of health. My master's degree is in exercise physiology or kinesiology. It was very biochemistry-focused to understand the fuel utilization of the skeletal muscle cells. I focused on how we use sugar, how we use fat, what happens post-exercise as we are trying to recover and how important it is to feed the body well to improve not only our entire health, but specifically the health of the cells.

HG: I'm glad you are going to speak to this, and I want us to go in depth because I find a lot of people thinking that they just need to up their intake of fruits and vegetables. They think that's what their body needs to function best. What do you think of that?

LW: It is such a good question. I feel like in our history, in our political food history, so many food groups have been villainized but fruits and vegetables have been spared. They are widely considered fresh, vibrant and full of antioxidants and really the best food for you. Everyone can agree that fruits and vegetables are part of a healthy diet, no matter what side of the political nutrition spectrum you come from. The problem is that we overeat fruits without regard for the fact that in the body, fruit is just sugar. Our body does not have a separate biochemical energy pathway for fruit or starchy vegetables. Our body breaks them completely down into glucose. So when you fill your plate with yams, potatoes, beets, carrots, apricots or bananas, your body sees that as one big pile of sugar.

HG: Wow. That is eye-opening. I think one thing that threw us off was the food pyramid,

THE GIFT OF THE WISE TRADITIONS PODCAST

The holiday season continues with the gift of the Wise Traditions podcast. Do you listen yet? We are going strong with nearly one million downloads to date! Join the thousands of others who are listening weekly. Go directly to our website to listen or download the episodes right onto your computer. Or use a podcast app on your phone to subscribe and get the latest episode on your device every week.

Here's a sample of what our guests bring to the show:

#101 Protect Yourself from Radiation, with Daniel DeBaun

"When you have a constant exposure to a very close emission, like when you're using your cell phone to your head, ... the cell itself says, 'Stop, stop hitting me!' and when it says that, it reacts and doesn't share the proteins between the cells. So you actually start feeling ill. Your fingers may hurt, your head heats up and it bothers you because of the heat; that's what's known as oxidative stress."

#99 Soul and Soil, with Forrest Pritchard

"There's no shortcuts... We have to educate ourselves. It's really easy to become 'overnight experts' on nutrition and agriculture and health... and say 'I read a couple of blog posts and all of a sudden, I know I just need to drink bone broth and all of my problems will become magically solved.' It goes deeper than that. We need to understand that we're getting true nutrition from this food. That starts with the soil; that starts with long-term practices; that starts with working with the farmer...."

#94 Why is Losing Weight So Difficult, with Zoe Harcombe

"It kind of releases people from thinking they are useless or they're greedy or weak-willed when you point out to them: 'actually you have some pretty powerful medical conditions that are going on here, and if you don't get these in check you have virtually no chance of eating in the way that you would like to eat.'"

You too can enjoy the podcast, even if you don't have a smartphone. All episodes are posted on westonaprice.org and on the Wise Traditions YouTube channel. You can listen directly from your computer. If you prefer to use your phone, you can subscribe through iTunes, Stitcher, Google Play, tunein, and iHeartRadio. Episodes can be played on Androids and iPhones. The Wise Traditions podcast recently passed the 900,000 download mark. Join the thousands who are benefiting from this initiative. Give a listen and please let us know what you think.

because at the bottom were all the starchy grains, breads and pasta. Higher up, they had fruits and vegetables in a separate category. That might have added to our confusion.

LW: Absolutely, they are completely separated in everyone's brain. They are and they should be considered separate food groups but, at the end of the day, our body does not see food in nine different food groups. It sees it as "this is fat," "this is sugar" or "this is a protein" and that is what it breaks down to. Of course, we want to have a holistic view of food. I don't want to look at my plate and see macronutrients. I want to see where the food came from and what animal made it. For our bodies, though, we need to avoid overloading our plate with just sugar.

HG: Let's say I start my day with some bananas and berries. What is happening inside my body when all that sugar is coming down the pike?

LW: When you start your day with fruit, you think you are doing the "right" thing, but at the end of the day—or unfortunately, at the beginning of your day—this is what begins the blood sugar roller coaster, particularly if you are eating all that sugar with very little fiber, protein or especially fat with it. Think of fruit juices, even fresh fruit juices. Juice is just the fruit sugar taken away from the fiber. If you want to enjoy fresh-pressed juice, make sure you've got some raw milk to add to it or a nice dab of raw cream, because the fat will help slow the absorption of that sugar into your bloodstream.

The reason the rate at which sugar hits the bloodstream is so important is because that is what determines how much insulin you produce, or whether your body has to overproduce insulin in response to your sugar. If you start your day with fruit juice, your blood sugar is going to increase very quickly. Your body is going to produce insulin to compensate. Then comes the sugar crash. It's 10:00 AM and you are reaching for coffee, because you're tired. Or you reach for a muffin to get you back up, to keep you going until lunch.

That is the sugar roller coaster. Your blood sugar increases. Most people are insulin-resistant so they have to overproduce insulin in order

to get the proper effect of lowering blood sugar. And then it decreases the sugar too much.

Imagine you are in the desert in Arizona, and your air conditioner is super sensitive. Let's say the air inside the house goes up to eighty degrees. The air conditioner kicks on, but instead of bringing it to a nice seventy degrees, it takes it to fifty degrees. Suddenly you go from being slightly uncomfortably hot to grabbing a blanket because the air conditioner is too effective. Basically what is happening in the body is that an overly reactive pancreas is overproducing insulin. We've got sugar coming in, and if it is coming in quickly, our body gets nervous: "Oh, there might be a lot more sugar behind it." Even if it is just a banana, if it hits our blood sugar quickly, the body is going to overreact. You just went from eighty degrees to fifty degrees too quickly; the air conditioner kicked on too strong. The insulin you produced was too much for what you ate, and now you have low blood sugar.

HG: I know people who are on this sugar roller coaster. They will grab a banana for breakfast and then a couple hours later, they will be "hangry," as they call it, meaning they are irritable because of hunger. I understand that something else should be eaten with that banana, because the banana alone is going to cause a problem. I don't understand all the science behind it as you do, but I can see what happens to them isn't good.

LW: Absolutely. It is so common, and it plays out in the entire day. You grab sugar for breakfast, no matter what it looks like, then you get some kind of sugar mid-morning. By lunch, you are craving carbohydrates, so you have what turns into sugar for lunch. I don't know how people stay awake from 2:00 to 4:00 PM if they are on this sugar roller coaster. That is when it hits the hardest. That is when you see everyone in line at a coffee shop trying to get themselves through the work day. Then they expect to sleep through the night and have energy. It is a terrible vicious cycle.

HG: When I think of insulin, I think of diabetics. Can you help us get a better understanding on what it means to be insulin-resistant?

LW: My favorite way to think about insulin resistance is to compare it to a car alarm. Hearing a car alarm is really annoying. Immediately, you get up and shut your windows. You may try to figure out where the noise is coming from and try to make it stop. In our body, insulin is a signal that says, "Hey, there is too much sugar in the blood. Muscle cells, liver cells, brain cells, whoever you are, take up this sugar and get it out of the blood because there is too much there." It is alarming, so all of our muscles, our cells, everyone listens. They get the blood sugar back to normal.

Now, imagine you are that person who is eating fruit for breakfast, drinking a lot of coffee and eating a lot of carbs. You are on a blood sugar roller coaster, which means you are hearing that car alarm all day long. You've become accustomed to it, so it is not alarming anymore. It is slightly annoying, but it isn't causing you to take action. When your body sees the insulin, it now thinks it doesn't need to do anything. Your cells stop listening and that is what insulin resistance is, which usually leads

to your body having to overproduce insulin. This form of insulin resistance is subclinical. Your doctor isn't going to see this on labs. You are not diabetic or even prediabetic. You are just insulin-resistant on a sugar roller coaster heading down the road of gaining weight, with effects on your cortisol, your adrenals and all of your hormones. Often insulin resistance results in high blood pressure, high cholesterol and sometimes polycystic ovary syndrome. Obesity and diabetes are the end game, and this can happen in this resistant state long before you are ever diagnosed with anything.

HG: What we really want to do is wake up and get off that roller coaster, but unless we have a physical condition or some crisis that the doctor can measure, we often just ignore that car alarm.

LW: Absolutely. It happens with so many aspects of health. We think that the symptoms we are experiencing are normal because "Everyone gets tired at 2:00 PM" "Everyone gets 'hangry' before they eat." "Hangry" is a funny term now. It seems so normal because everyone deals with it, but this is a symptom of dysfunction. We need to view these symptoms as a sign of dysfunction, and then we can start making a change.

HG: My podcast guests often say, "We think what is common is normal, but there is a difference." In other words, just because everyone is "hangry" doesn't mean it is normal or how things are supposed to be.

LW: That is so true. The "hangry-ness" is just a symptom of blood sugar dysregulation. We need to get out of the habit of normalizing these health symptoms—from headaches to PMS to being "hangry" to sleep problems. These are things that no one should be experiencing.

HG: And from what you've studied, these things are all interrelated?

LW: Of course, absolutely. Our body is so much more advanced than we give it credit for. Everything is so interconnected, and sugar is our body's energy source. It is what feeds our heart, it is what feeds our brain. So of course, this is important to the body. Everything is tied back to sugar because it is a fuel source in the body. The sugar issue is going to affect all systems in the body and all aspects of health.

HG: Let's talk about some solutions now. Let's talk about ways to attack and avoid this insulin resistance and blood sugar roller coaster.

LW: The easiest one is to eat more fat. When we pair sugar with fat, we slow the absorption of sugar into the bloodstream, thus letting the body see the sugar in a more reasonable way so we don't overproduce insulin. Eat the banana with some soaked almonds. Now the sugar is basically time-released into the bloodstream and the body does not need to produce as much insulin. I think that most of your podcast listeners understand the dietary piece, but what a lot of people don't understand is how important exercise is to the insulin and sugar discussion.

HG: I'm glad you bring that up because with the Wise Traditions diet and the Weston Price principles, we are focused a lot on the food we eat. But movement is critical, too.

LW: Absolutely. Most people don't know that even if they are diabetic and are having blood sugar regulation issues, if they were to test themselves and find high blood sugar—higher than normal—instead of using insulin they could exercise. What that does is tell the skeletal muscle cells that they need food, and their food is the sugar in the blood. Those cells will

HERE'S WHAT LISTENERS ARE SAYING!

Sooooo encouraging: "I love the Wise Traditions podcasts so much! I've been listening for these two years and have learned a great deal of information to complement the Wise Traditions cookbooks and the *Nutrition and Physical Degeneration* book. These podcasts keep me encouraged about my diet from week to week—they are a lovely reminder of why I'm living the way I'm living." ~erin_collins, on Apple podcasts

Food wisdom for your family: "This is my favorite health podcast! All of their food research, findings and recommendations make so much sense and have helped me switch my family to whole, unprocessed foods. Learn something new every week!" ~tessframe, on Apple podcasts

Knowledge: "Knowledge is not power unless it is applied. Wise Traditions helps you know how to apply this knowledge to become healthy and educated." ~Linsto, on Apple podcasts

Even if you listen to no other podcasts, give this one a try! We even regularly record "bonus" episodes that feature journal highlights with Sally. It is a gift you can unwrap every season of the year!

start to take up that sugar in a way that is not related to insulin. So we are bypassing the problem that diabetics have with insulin by exercising, and still getting the sugar out of the blood.

HG: Do conventional doctors give this advice? It sounds great that instead of injecting yourself with insulin you could move.

LW: Yes it does and I wish more people did it. I don't think it is a conventional treatment plan. A lot of what we studied in kinesiology is how we can use exercise prescription as a support for health and how important it is for doctors to talk about not only diet but also exercise as a prescription, as a recommendation to better one's overall health.

HG: I like "prescription" better than "recommendation" because I think doctors are already recommending movement and many people say "not today."

LW: Exercise prescription is definitely a big thing in the kinesiology world. We are hoping to make a change and improve the amount that is recommended. I think people think that if you move a couple times a day for 20 minutes, you'll be great. If people understood not only the importance of aerobic exercise, but also how important resistance training can be for the body long-term and for this insulin situation, more people would be doing it.

HG: So not just cardio, but some strengthening and toning with resistance weights.

LW: Absolutely. When most people talk about improving insulin immediately, we are looking at cardiovascular-type exercise—that is the type of fuel that your body needs in those movements. But when we are looking at the effects of training long-term, if you have worked out for twelve weeks, there are significant changes at a cellular level that can improve the way your skeletal muscle cells listen to that car alarm. They start to listen to the car alarm again. Part of my graduate student research was on how squatting, resistance training and running or aerobic training can have long-term positive

effects on how your body manages sugar in the blood.

HG: That is fascinating. So adding fat to our diet can help slow down our absorption of sugar and the shock to the body. And then movement can help. Are there any other tips you can give us on how to address this issue?

LW: Eat less sugar. No, really, the idea is basically helping your body manage blood sugar in a way that it is used to. Our bodies have not evolved to deal with the two-hundred-some-odd pounds of sugar per person, per year, that we are consuming. Our bodies are well adapted to go without sugar. Our bodies evolved to withstand starvation and to withstand the lack of fruit in the diet. We have not evolved to deal with too much sugar in the bloodstream. This is new to our body. Look around at the health statistics and you see that we are paying for it. When we start treating our body like it should be treated, giving it the food it is used to, evolutionarily, then we are going to be a lot better off long-term.

HG: But aren't there people, even dietitians, who say, "Eat your fruits and vegetables"? They are giving a different message than you are. What do we do with these conflicting messages?

LW: It is such a good question, and I think that most practitioners like myself encounter this all the time. We spend so much time educating our clients and then at the end of the talk, they ask, "Well, to whom do I listen, whom do I trust?" We live in this information age where you can google topics and come up with fifteen different opinions on anything related to health. Usually, what I'll say to those people is, "Don't listen to me, don't listen to the science where we don't even know who funded it. Listen to great grandma." Listen to the cultures, to our ancestors and to traditions. They had wisdom for a reason. It was life or death for them. If they were not eating properly, they were not growing up healthy, they weren't finding mates and they were not growing up strong enough to fend for themselves. They weren't healthy enough to feed their families. They weren't living long enough to have babies. It was life or death for them and when they found something that worked, they put it in their songs, in their religious texts and in writing. They told it to everyone they knew—and that is the type of wisdom that we've lost.

Now, we say, "Oh, this has six grams of sugar, therefore my dietitian thinks that it is okay for me to eat." We've come so far from listening to the wisdom about what is good food. We are misinformed and gullible walking down a grocery store aisle and thinking that all the things that say "natural" and "organic" are healthy. We fill our carts with total disregard for what the items look like, where they came from or whether they are even real food.

HG: That is such a good point. I went to a foodie conference recently and every single meal was served in a plastic container. I expected to get some pictures of good food and get some good food in my body. I was so disappointed. It wasn't real food even though the conference was supposedly focused on nourishing food.

LW: It is so true. We go into these grocery stores where their whole brand is about healthy food, and yet when we start reading the list of ingredients that is a mile long, we very quickly realize that this was not made on a farm but in a lab. That is not what we should be eating.

HG: We really need to pay attention to what we are putting in our bodies and to the wisdom of the past. But also, we need to pay attention to how our bodies are responding, because your body told you as a young person in your second year playing lacrosse in college, “Something’s not right.”

LW: And I had the benefit of knowing how my healthy body felt. Not a lot of people know that. They just know how their body has felt their whole life and, therefore, they think that is normal. We are always told that our temperature is unique to us. We are all biochemically different people. So yes, your temperature runs a little high, but it is not the case that you “just have cramps.” You don’t just “get injured easily.” These are things that we take as temperatures for ourselves. We say, “It has been like that forever” and totally disregard the fact that it just means that you’ve been sick forever. I had the benefit of going into college knowing what my healthy body felt like, so when it broke down, I was very aware. And I knew that this was not a normal thing despite what the trainers were thinking. “People injure their MCLs all the time” or “People tear their meniscus all the time,” no problem, no big deal. Okay, but why? That is what we need to figure out.

At the end of the day, our body is fit for survival. If our lungs and our brains and our heart are working, we survive. The body doesn’t care about your meniscus. As an athlete, all you

care about is your musculoskeletal system, but your body doesn’t get that memo. Unless you have perfect nutrition, your body is taking all of the nutrition you eat and giving it to the organs. Let’s say you are getting 50 percent of the nutrients you need. That will go 100 percent to the organs your body prioritizes, and zero percent to the muscles and tendons that as an athlete you care about. As soon as your nutrition falters, it is your musculoskeletal system that takes the biggest hit because it seems superfluous to the body’s survival, despite what the huge checks that NFL players are bringing in would like to argue.

HG: That is such a good point. I’ve never thought about that before.

LW: It is not something we think about. Instead we think, “You are an athlete, you are a high-performance machine and need high-performance fuel.” But we don’t talk about why that is so important and the biology. I hate to be blunt, but the body doesn’t care that you need your knees.

HG: It is going to save what is most important, the internal organs, the heart, the liver. The other stuff is gravy. But if you had your gravy, that injury wouldn’t have happened?

LW: Exactly. If you had had your gravy, that is the difference between a season in which you’re injured and a season in which you play the entire season and get brought up to the next level of your sport, where you get the accolades, you score the touchdowns, you score the winning goal. That is the difference. It is that 95 percent to 100 percent, and those are the inches in which professional athletes function and fight over and fight for. It is that last bit of nutrition that is going to make that difference.

HG: I think that this conversation is really going to appeal to those who are trying to improve their athletic performance, but also to the everyday Joe who is stuck on this sugar roller coaster and is having insulin resistance. If people could do only one thing to improve their health, what would you recommend they do?

LW: Okay, if I can fudge and say two things, first is always to pair your sugar with fats and eat more fat. That is going to get you off of the blood sugar roller coaster. The second suggestion is to move. If you don’t like to run, lift weights. If lifting weights intimidates you, go for a walk, surf or do yoga. Go do something. Move your body like it is meant to move and eat your food in proper combinations. ☺☺☺

All Thumbs Book Reviews

Statin Nation: The Ill-Founded War on Cholesterol, What Really Causes Heart Disease, and the Truth about the Most Overprescribed Drugs in the World
By Justin Smith
Chelsea Green Publishing

If you are reading *Wise Traditions*, you are probably familiar with the history, debates and issues surrounding saturated fat, cholesterol, heart disease, stroke and statins. Indeed, most likely you may know more than many doctors and health care providers do about these things. Justin Smith's *Statin Nation* may not provide too much new information, but it does provide a concise, comprehensive and convenient format for reviewing many, if not all, of the most important issues at play. It does so in a comprehensible and clear manner, making the book an excellent option to recommend to those wanting to learn more about statins.

In the preface, Smith starts off on the right foot and doesn't look back for the rest of the work. He says, "What I learned was that much of what we are told about healthy eating is wrong....It became obvious that what we think about a wide range of health issues is determined by commercial interests and experts who are more interested in preserving their own careers than in properly informing the public." This statement serves as a summary of what much of the book is about—showing how neither researchers nor sources of health advice are shooting straight with those who suffer under their biased and incorrect recommendations about food and pharmaceuticals.

The first chapter explores the causes of heart disease. It is full of excellent, short observations that undermine the saturated fat-cholesterol model of heart disease. Smith points out that the "greatest risk of death was associated with having no risk factors [for heart disease]; people with none of the five risk factors were 1.5 times more likely to die after a heart attack than people

who had all five." He continues a few pages later, "So-called bad cholesterol is actually lower in people with heart disease, not higher." This attack on heart disease research will take center stage in a few chapters, but here, it is just a teaser of good things to come.

The third and fourth chapters are the heart of the book. Chapter Three explores the shady world that is the pharmaceutical industry, with all its disease-mongering, drug-pushing and back-door dealing. Smith explains that many drug companies now spend more on marketing than on research and development! Further, companies target most of their marketing at health professionals, rather than consumers (which amazes me, given the constant barrage of pharma commercials that appears on nightly television these days). This "educational" marketing then shapes how doctors approach their patients and their patients' problems. Ever wonder why modern medicine involves little more than the following? "Hi. What's wrong? Let me look at this drug industry-written book and give you drug X, maybe Y and possibly Z for that." This is how medicine and the pharmaceutical industry train, condition and reward doctors.

Smith notes that the incestuous pharmaceutical relationship goes even further. The decision to lower the definition of "high cholesterol" from 250 to 200 was reached by a panel of nine doctors, eight of whom had ties to pharmaceutical companies that manufacture statins. These ties can range from reimbursements for professional trips, drug samples, food and drinks provided in the workplace, payments for consulting and speaking engagements and much more. Learning about these industry incentives is enough to raise your blood pressure to dangerous levels, so reader beware!

Chapter Four delves into statin science, exploring the host of studies that medicine often uses to justify America's most prescribed drug. This picks up where Chapter Three ended, with its exposé of how drug companies actually pay



The decision to lower the definition of "high cholesterol" was reached by a panel of nine doctors, eight of whom had ties to companies that manufacture statins.

All Thumbs Book Reviews

for and conduct most clinical studies, and how the journals that publish the studies are rife with conflicts of interest and other ethical issues. After exploring a number of major statin studies, Chapter Four moves on to statins' so-called "mild" side effects. Needless to say, they are not as mild as the manufacturers want the masses to believe.

In Chapter Five, Smith argues for an integrated theory of what causes heart disease, starting with the concept of stress and then reviewing immune, environmental and even electromagnetic factors. There is no mention of diet in this section. Why he chose to leave this out would be a fascinating question to pose to Smith, but on page 123, he does give nutritional advice that is absolutely solid, albeit, like the entire book, short—meat, eggs and dairy from organic farms; fermented foods; high-quality vegetables; and more. Perhaps Smith felt that others have dealt with the dietary side of things so much at this point that including a great deal about it would be redundant. On the other hand, the book is probably one place where *Wise Traditions* readers will find new and rather fascinating information about other factors related to heart disease, such as a long-known link between solar activity and heart attacks. Chapter Six is all about CoQ10 and contains lots of great information, some of which I had not previously come across before.

Chapter Seven covers "nutrition for the heart," including various vitamins and minerals. Again, the chapter contains a great deal of interesting information and analysis of some topics that I had not previously encountered or considered. Especially illuminating are Smith's points about the connection between vitamins, minerals and other important chemicals or structural components of the body—B vitamins and homocysteine levels, or vitamin C and collagen production. His look at magnesium is also insightful. The chart showing that the foods highest in magnesium tend to be nuts may point to the real reason that a handful of nuts a day is protective against heart disease. In other words, it has little to do with nuts' fat profile (nuts are high in polyunsaturated fatty acids or PUFAs, which already are overloaded in most Americans'

diets), and everything to do with helping increase magnesium levels. In a world with a far too high calcium-to-magnesium ratio, nuts are one of the few remaining foods that can bring balance to this crucial mineral in our diets.

The book's concise conclusion is a brisk seven pages, with solid information on stress, exercise, nutrition, supplementation and a few other topics. There won't be anything here to surprise a WAPFer, but the information may help many people who are just starting out on the journey to real health and nutrition.

Smith's book is accessible and easy to read, making it a great gift for someone who wants a general but non-technical and not too jargony discussion of heart disease, diet and statin drugs. Because the book is short, coming in at just over one hundred and twenty pages, it will strike an average reader as unimposing in terms of commitment, while not skimping on quality. At the same time, it includes thirty pages of meticulous footnotes, with some chapters tallying up one hundred citations or more. Thus, the reader wanting to explore the book's assertions will not need to go far to find the primary and other resources that Smith relies on. Books like *Statin Nation* will play an important part in continuing to turn the tide of public opinion, providing accessible options for interested readers to at least consider that much of modern nutrition and medicine is built upon lies. Two thumbs UP.

Review by John Moody

UPDATE ON SAM GEROD

As reported in these pages, Sam is an Amish grandfather serving a six-year prison sentence for "mislabeling" herbal salves that he has sold for years.

If any WAPF members want to send Sam money, they must use the official channels outlined here: <https://www.bop.gov/inmates/communications.jsp#money>.

Sylvia Onusic reports that the inmates must buy everything through the commissary where the "food" items available are pitiful (https://www.bop.gov/locations/institutions/lor/LOR_commlist011717.pdf). She will be visiting Sam soon and will report on the food situation. Inmates can't receive packages without prior approval *but* inmates may receive magazines, hard and paperback books, directly from the publisher (For more information see: Policy on Incoming Publications.)

All Thumbs Book Reviews

Big Chicken: The Incredible Story of How Antibiotics Created Modern Agriculture and Changed the Way the World Eats

**By Maryn McKenna
National Geographic**

A decade ago, I remember picking up *The Omnivore's Dilemma* by Michael Pollan for the first time. A few short hours later, I had finished the book, immersed in a world of words carefully crafted to move my mind and body to better food choices. It worked. For myself and many others, Pollan's book helped create significant and lasting changes.

As I dug into Maryn McKenna's new book, *Big Chicken*, it reminded me of the power that great books can have in propelling needed changes. Poultry is an area where America and the world desperately need big change, and *Big Chicken* is the kind of book that can help create it.

The book is exceptionally well crafted. McKenna weaves between real-life stories, history, statistics and science with a skill and deftness that only the most experienced dancers could muster. The writing is crisp, the storytelling engaging, and the information easily digestible, with facts peppered throughout the narrative to thoroughly educate but not overwhelm the reader. Actually, there is a great deal to be overwhelmed by—it is not only the complexity of the story but also the nature of the problem that is overwhelming. The world's quest for big chicken involves billions of animals—cheap, convenient blocks of “meat cash” as a farmer once called them. These billions of animals consume hundreds of millions of pounds of antibiotics each year. The overuse of antibiotics has dire consequences not just for animal health, but for human health as well.

The book explores how chicken became big and discusses the related consequences of “big” for the invisible world of mostly friendly, but sometimes deadly, microbes. The first part

of *Big Chicken* focuses on how industrial and scientific advances that began in the 1920s reengineered the chicken. Specifically, this section of the book explores the unfolding overuse and abuse of antibiotics in chicken production. McKenna nicely sums up her book's central thesis on page 31: “Antibiotics have been so difficult to root out of modern meat because, in a crucial way, they created [modern meat].” Although many other factors also have played a part in creating the massive mess that is modern meat production—including the advent of artificial animal nutrition and industrial crop production as well as changes in animal breeding methods—all of these would be for naught without antibiotics.

Animal production currently uses 80 percent of antibiotics in the U.S. and makes use of over half of the antibiotics produced globally. McKenna observes (p. 27), “What slows the emergence of resistance is using an antibiotic conservatively: at the right dose, for the right length of time, for an organism that will be vulnerable to the drug, and not for any other reason. Most antibiotics used in agriculture violate those rules.” McKenna shows time and time again how little restraint or forethought governed what the burgeoning chicken industry was doing. This is partly understandable—post-war cultural tides and an unshakeable belief in science and chemistry (at a time when we had a very limited understanding of both) laid the groundwork for the deification of “better living through chemistry.” Or at least, “better, cheaper chicken.” This set the stage for what we see in the antibiotic resistance epidemic.

Why, when all modern industrial animals routinely receive antibiotics, is chicken the main character in this story? The answer is, because chickens were first. Almost all modern industrial meat production is based on what producers learned about, and did to, chickens. Raise animals on synthetic diets? Use confinement and incredibly crowded living conditions?



Animal production currently uses 80 percent of antibiotics in the U.S. and makes use of over half of the antibiotics produced globally.

All Thumbs Book Reviews

Administer antibiotics (called growth promoters) to increase weight gain and protect the animals from their unnatural living conditions? Producers did it to chickens first, each and every time. Probably no animal in all of human history has enjoyed so much clinical attention and agricultural investment as the chicken. It needed every penny of this investment to take the chicken from the most to the least expensive meat per pound on the market, and to go from the Sunday and special occasion meal to the mass-produced protein that rules over all the others.

In their defense (as McKenna does a great job of showing), the early adopters of chemical-based agriculture really didn't understand what they were doing. They were not able to set the immense benefits that they could see against the even greater costs of their actions, because the costs were truly hidden. The world of microbes was still mostly a mystery. Many of the costs were far off in the future or in a tiny microbiological world that had yet to be studied, let alone understood. Indeed, even to this day, the microscopic world remains one of the most promising but least well understood areas of research for improving human health.

Moreover, the benefits of "meat as cheap as bread" (Chapter 3) made it easy to dismiss the few detractors and warnings that emerged in response to the explosion of antibiotic-based agriculture. McKenna explains how enthusiasts began adding antibiotics to fish, using them to wash vegetables, and even painting antibiotics on meat before turning it into ground meat. The "more, bigger, faster" paradigm that Joel Salatin has described was born. From originally adding ten grams of antibiotics per ton of animal feed, some farmers increased the amount to one thousand grams per ton of feed. Neither government nor industry exhibited any caution or self-control.

The second part of the book shows how the discoveries that enabled massive changes in chicken production began to wreak havoc on microbes, quickly creating widespread antibiotic resistance. For McKenna, this case study of chemically based agriculture isn't merely theoretical. Story after story involves actual people—including researchers and scientists testifying at hearings about the coming crisis, industry leaders and government officials blocking reforms, farmers trapped in the commodity raising system and individuals sickened by antibiotic-resistant bacteria. Disease outbreaks have dealt death and debilitation to hundreds. In a sense, *Big Chicken* is our story and the story of the modern U.S. and its relation to food and health.

What eventually stopped the excesses were all the problems that overuse of antibiotics began to create. Antibiotic resistance gave birth to questions among industry players and many others about whether "better living through chemistry" might not be "better" after all. In Part Three, therefore, *Big Chicken* ends on a surprising note of hope, following the modern-day movement to reign in antibiotic use. This movement isn't

solely or even primarily espoused by alternative farmers like fourth-generation cattleman Will Harris (who discussed "farming as it should be" in a Wise Traditions podcast and who McKenna prominently features at the book's close). Rather, big chicken itself—the industrial poultry industry—has embraced the call to curb antibiotic use. The very industry that created modern meat production has been the most eager (at least on the surface) to tackle antibiotic use in animals. Although there is a recognizable need to address and reverse many other problems as well—such as confinement animals' appalling living conditions, manure concentration and the use of genetically modified (GM) feed—stopping antibiotics is a critical first step to averting a global catastrophe.

Perdue, Chick-fil-A and many other companies have led the way, seeing the sea change in consumer attitudes toward antibiotics in animals. In just a few years, they have radically reduced the amount of antibiotics used in poultry. By around 2020, many commercial chickens will be antibiotic-free. Unfortunately, it doesn't appear that this initiative has caught on in the other industrial animal production models (beef and pork). McKenna shares data from 2015, which indicate that antibiotic use for animal agriculture in America has yet to show a downward trend. We eagerly await more recent government data, which are long overdue because of the industry's refusal to be transparent about its practices (funny, they never seem to turn down all the government money!).

Big Chicken is an absolutely fantastic read. Infuriating and illuminating, but fantastic. Get a copy for yourself. Get a copy for a friend. Enjoy talking about it over a pastured chicken from a local farmer. Two thumbs UP.

Review by John Moody

All Thumbs Book Reviews

Vaccination is Not Immunization:

The War on Children

By Tim O'Shea

Immunity Ltd

Vaccination continues to be a hot topic, and more books come out on the subject every year. If your mind is already made up, then there is nothing anyone can do about that, but for those whose minds are still open, this book by Tim O'Shea is a good place to start. It is not painfully long but is packed with information on every angle of the topic. For me to completely summarize this two-hundred-page book would probably take more than one hundred fifty pages, yet it is very concise, to the point and information-dense. So I will cover what I consider the highest of the highlights.

In any disagreement, one of the most important issues to address first is who your sources are and why you believe them. If you only believe information you hear from some hairdo on CNN/CBS/ABC/NBC/Fox...then I have to wonder why you are wasting precious time reading anything published by the Weston

A. Price Foundation. (You could be watching SpongeBob SquarePants instead.) In fact, if you believe any grandstanding celebrity on this topic, go back to SpongeBob and leave this subject to the adults.

The pharmaceutical industry controls all of the mainstream media. Another popular source of information, the Centers for Disease Control and Prevention (CDC), owns over fifty vaccine patents. If you blindly believe anything the CDC says, you might want to spend some time studying conflicts of interest and how they contaminate information. Your average doctor knows what the pharmaceutical industry wants him or her to know—and very little more. O'Shea mentions that the Physicians' Desk Reference (PDR) used to be an extensive source of solid information, but that information has disappeared in the most recent versions of the PDR.

At least some vaccines are now using continuous cell lines—cells that essentially never die—in vaccine production. Some people believe there could be a connection between that and cancer cells, which also don't die as they should. When I was very young in the 1960s,



BOOK REVIEWS IN **Wise Traditions**

The Weston A. Price Foundation receives two or three books *per week*, all of course seeking a Thumbs Up review. What are the criteria we use for choosing a book to review, and for giving a Thumbs Up?

- First and foremost, we are looking for books that add to the WAPF message. Dietary advice should incorporate the WAPF guidelines while adding new insights, new discoveries and/or new therapies.
- We are especially interested in books on the fat-soluble vitamins, traditional food preparation methods and healing protocols based on the WAPF dietary principles.
- We look for consistency. If you talk about toxins in vaccines in one part of your book, but say you are not against vaccines in another part of your book, or praise fat in your text but include recipes featuring lean meat, we are unlikely to review it.
- We do not like to give Thumbs Down reviews. If we do not agree with the major tenets expounded in a book sent to us, we will just not review it. However, we feel that we have an obligation to point out the problems in influential or bestselling books that peddle misinformation, and for these we will give a negative review. We also will give a negative review to any book that misrepresents the findings of Weston A. Price.
- If you want us to review your book, please do not send it as an email attachment. Have the courtesy to send us a hard copy book or a printout of your ebook or manuscript in a coil binding.

All Thumbs Book Reviews

children didn't get cancer. Now I hear that cancer is the number-one cause of death in children.

Because vaccines use genetically mutated forms of diseases, new diseases are being created that didn't exist before. Vaccines containing a manmade version of a bug may give you some temporary immunity to something, but not to the natural disease. When you get chickenpox, for example, you are immune to natural chickenpox for life and pose no danger to anybody. Ironically, vaccinated people carrying the new diseases are the danger. They have permanent immunity to nothing and may infect people who are immune to the natural disease but not the manmade version. The vaccines have created new problems and solved nothing.

There are ongoing heated arguments about whether vaccines work at all and whether they are really better than doing nothing. This debate cannot be solved without studies comparing the vaccinated to the unvaccinated. The vaccine industry has stubbornly refused to do that and justifies its refusal with spurious and irrational arguments about ethics. Unfortunately for the industry, studies are starting to leak out. One thing to keep in mind when making the comparison is that you have to look at total health, not just the disease associated with the vaccine. If those who are vaccinated against hangnails have fewer hangnails than the unvaccinated, that's nice, but if the vaccinated also are three times more likely to burst into flames, that's not so nice. Somalis in Somalia have an autism rate of approximately zero. They also have a vaccination rate of approximately zero. Forty-three thousand Somalis have been relocated to the U.S. in the last decade, mostly to Minnesota. Those U.S.-based Somalis have been vaccinated, and now one in forty-five has autism, according to the CDC. According to more reliable sources, the number is actually one in thirty-two. Is that "genetic"? If you say yes, please...please go back to SpongeBob.

A study by Mogensen, Aaby and others,

published in 2017, compared vaccinated to unvaccinated children in Guinea-Bissau and found that children vaccinated with diphtheria-tetanus-pertussis (DTP) were dying about five times faster than unvaccinated children. The Mawson study of six hundred and sixty-six homeschooled children in four U.S. states found that the vaccinated had a fourfold greater odds of being diagnosed with otitis media and pneumonia than the unvaccinated, and were thirty-fold more likely to be diagnosed with hay fever. The vaccinated children also had a fourfold greater odds of a neurodevelopmental disorder diagnosis.

Speaking of the DTP vaccine (retooled as DTaP for "acellular pertussis"), O'Shea reproduces a chart from the CDC website showing the number of pertussis cases in the U.S. from 1981 to 2012. In 1981, the number was 1,248. In 2012, it was 48,277. During that time, the mandated pediatric vaccine schedule increased the number of DTaP shots from two to six. The more shots, the more sickness.

People who have a vested interest in vaccines make some interesting admissions. The original Salk polio vaccine created "one of the worst pharmaceutical disasters in U.S. history," according to Paul Offit, one of the loudest proponents in favor of vaccines in general. Albert Sabin, MD, who invented the next polio vaccine, said thirty years later, "Official data has shown that the large-scale vaccinations undertaken in the U.S. have failed to obtain any significant improvement of the diseases for which they are supposed to provide immunization. In essence, it was and is a failure." Once again, not only is the vaccine program a failure, but it has created more problems than it has solved. The only polio cases in the last few decades were caused by the vaccine itself. Even the CDC admits that.

The makers of Gardasil have done an impressive job of persuading many that twelve-year-old girls need that vaccine, even though they have little chance of getting cervical cancer until they are in their fifties. The manufacturer admits the vaccine is effective only for a year or two. Side effects include loss of vision, loss of consciousness, seizures, paralysis and death. They want to give it to boys, too. I really can't make this stuff up.

Hugh Fudenberg, MD, a leading immunogeneticist, found that "If an individual had five consecutive flu shots between 1970 and 1980, the chances of Alzheimer's Disease were ten times greater than for those getting...no shots." The adult vaccine schedule now calls for yearly flu shots until age sixty, by which time you should be safely dead.

Why do people get so upset at the mere suggestion that any vaccine might be dangerous? Andrew Wakefield published a study in *Lancet* that suggested a possible correlation between a vaccine and autism. He did not claim to prove anything. He just suggested more research would be a good idea. The result was the assassination of his character and career. The U.K.'s General Medical Council brought a case against Wakefield and John Walker-Smith, but an official legal ruling later stated that the case

All Thumbs Book Reviews

The Craving Cure

By Julia Ross

Flatiron Books

The subtitle of this book is *Identify Your Craving Type to Activate Your Natural Appetite Control* and the author, Julia Ross, has many years of experience using amino acids to help her clients get over addictions to sweets, starches, alcohol and drugs. We know her as the author of *The Mood Cure* and *The Diet Cure*.

The Craving Cure focuses on carbohydrates, what Ross calls “Techno-Karbz,” modern sugar- and starch-laden food-like substances that are more addictive than cocaine. “Whether crunchy or creamy, solid or liquid, highly processed sweet and starchy Techno-Karbz are the central ingredients in today’s diet.” They are intoxicating to the brain, especially as they come with a cargo of “alluring add-ons” like chocolate, caffeine, processed milk products, industrial fats, industrial salt and artificial flavorings. Each of these components lights up a different pleasure center in the brain, giving the imbiber a brief “blast of bliss.”

Ross identifies five types of cravers—which the reader can determine by a simple questionnaire—and then five protocols to address the neurological needs of each craver type. The idea is to use specific amino acids to reduce the cravings—sometimes this happens immediately—while you transition to a healthy diet. Eventually you will no longer need the amino acid supplements and can enjoy a life without addictions.

Ross pulls no punches when it comes to two of today’s favorite “health” foods: chocolate and cannabis. She notes that chocolate contains high levels of caffeine (especially dark chocolate) and at least three other stimulants, including one called PEA, known as “the chocolate amphetamine.” When combined with processed milk, sugar, starch and fat, you have an addictive weight gain bomb.

As for cannabis, Ross notes that in states where it has been legalized, “its addictive, psychoactive properties have been added to everything from candy to ketchup,” making it a super effective addition to the food industry’s arsenal of addiction technologies. Cannabinoids linger a long time in the brain and can amplify a range of neurotransmitters. A common long-term effect is psychotic symptoms.

The Craving Cure is not without flaws. The book gives mixed messages about butter—including butter and full-fat dairy in some of the recipes but also indicting dairy fats in lists of addictive foods. We’d love to see more emphasis on animal fats including butter as sources of arachidonic acid, which the body uses to make natural cannabinoids. There’s no mention of really nutrient-dense foods like liver, cod liver oil or raw milk, nor healing foods like ferments and bone broth. Many WAPF-ers have reported an end to cravings simply by incorporating these items in their diet.

For those really addicted to things like Cheetos and chocolate café-latte, the principles outlined in *The Craving Cure* plus the full Wise Traditions diet can provide a powerful healing combination.

Review by Sally Fallon Morell



Chocolate contains high levels of caffeine and at least three other stimulants, including one called PEA, known as “the chocolate amphetamine.”

was based on “inadequate and superficial reasoning and, in a number of instances, a wrong conclusion.” Why didn’t we hear anything about this from the sock puppets in the news media? Is it because the pharmaceutical industry provides the vast majority of advertising funding for the corporate media? Just look at who is controlling the sock puppets, and you have your answer.

So we have vaccines that clearly don’t work, and yet the medical

industry continues to push them. We also have word games, as the title explains, that confuse “vaccination” with “immunization.” When the purveyors of such potions stoop this low, any thinking person has to question the integrity of the entire system. The thumb is UP for this book.

Review by Tim Boyd

All Thumbs Book Reviews



Gardasil: Fast-Tracked and Flawed

By Helen Lobato

Spinifex Press

According to SaneVax, a website run by an international group of concerned individuals, over fifty thousand adverse events have been reported for the Gardasil vaccine. According to the National Vaccine Information Center, which cites sources that include the U.S. Food and Drug Administration (FDA), only one to ten percent of adverse events are reported at all. And according to Dr. Suzanne Humphries, most doctors don't even know that there is a system for reporting vaccine adverse events, and very few of those who do know use it. According to simple common sense, Gardasil should not be on the market, much less mandated. According to the Centers for Disease Control and Prevention (CDC), none of that matters.

If that sounds a little crazy, that's nothing. Adverse events related to Gardasil include minor things like facial paralysis, seizures, strokes, multiple sclerosis, lupus and death. Three hundred and fifteen deaths have been reported—but if these represent only one to ten percent of all Gardasil-related deaths, you do the math. Did they not do any safety testing? Yes, they did, for very short periods of time—not long enough to prove anything. The placebo contained aluminum, a known neurotoxin. So after comparing the vaccine to another toxic substance, they found no significant difference in adverse effects. Of course, that means everything is fine, right?

The pharmaceutical and medical industries tell us that Gardasil protects against cervical cancer. We are also told cervical cancer is caused by the human papillomavirus (HPV). How do they know HPV causes cervical cancer? That's a good question. According to the World Health Organization, 90 percent of HPV infections have no symptoms and clear up by themselves. Only one person in ten thousand

with HPV goes on to develop cancer. Cervical cancer rates in developed countries were steadily dropping long before there was a vaccine. So, tell me again: How do they know HPV causes cervical cancer?

Even if HPV does cause cervical cancer, how do they know the vaccine works against HPV? Well, they developed this vaccine using HPV...oh, wait a minute. It's impossible to create HPV in the lab. So how did they develop this vaccine? They genetically engineered bits and pieces of the virus and made the assumption that these virus-like particles collectively and accurately simulate the real virus. How did they prove that assumption? They didn't. In fact, Diane Harper, one of the developers of Gardasil, said, "The rate of serious adverse events (from Gardasil) is on par with the death rate of cervical cancer. Gardasil has been associated with at least as many serious adverse events as there are deaths from cervical cancer developing each year."

Dr. Kelly Brogan observes, "Every day in my office, I have women expressing poignant remorse, shame and rage because they trusted their Pharma-pushing doctor instead of trusting themselves, trusting in the inherent potential of the body to be well, to heal, to surmount seeming obstacles. No cohort of women are more lionized than those who have lost their daughters to a vaccine promoted to save them from a disease they were never going to get."

Attempts to raise public awareness have been stonewalled. It shouldn't be a big surprise that the yapping jackals of big-pharma-controlled media are not much help here. Helen Lobato presents an alternative theory of what causes cervical cancer at the end of this book. It involves some long words but still makes more sense to me than the theory that we are all vaccine-deficient. My thumb is UP. ☺☺☺

Review by Tim Boyd

Most doctors don't even know that there is a system for reporting vaccine adverse events, and very few of those who do know use it.

Vaccination Update

THE TWENTY-FIRST CENTURY CLASSROOM

By Kendall Nelson, Director, *The Greater Good*

For years I have been working within the vaccine awareness community as an activist for health freedom, hoping to improve the lives of children. In doing so, I have met many heroes—men and women who are not afraid to address the shortcomings of vaccination despite the personal and professional repercussions that sometimes follow. These people are doctors, scientists and parents of injured children who share current vaccine news and studies, as well as ideas. One of these heroes and thought leaders is Anne Dachel from Age of Autism who for the past few months has provided our community with over two thousand news articles written about what she calls “The Decline of the Modern Student.”

SOMETHING IS HORRIBLY WRONG

“Evidence that something is horribly wrong with today’s children is worldwide and it’s growing. U.S. health officials have been silent on these issues for years, but I see a change happening. Actually, it’s been several years in the making, but it’s just now in the news everywhere,” says Dachel. Recent headlines read, “Special Needs Student Population Still Rising,” “Suspension Rates on the Rise,” “Handcuffing of Kids with Disabilities ‘Excessive Force,’ Judge Rules” and “Suicide Rates for Teenage Girls at All-Time High.”

Stress, mental illness, anxiety, depression, and learning disorders—they are plaguing our children at ever-increasing levels. Schools are having trouble accommodating these students while suffering endlessly with discipline issues, violence, expulsions, stressed-out teachers and budget shortfalls. According to the Norwegian Institute of Public Health, up to 15-20 percent of children and adolescents aged three to eighteen are inhibited by mental problems such as anxiety, depression and behavioral issues, while the use of antidepressants by young people aged

fifteen to nineteen rose 44 percent among boys between the years 2004 to 2013, and by 48 percent among girls in the same period. Similarly, the National Institutes of Health (NIH) here in the U.S. says one in five American children currently has or had a “seriously debilitating mental disorder.”

Sadly, education today is not what it once was. IEPs (Individual Education Plans), sensory rooms, seclusion, restraint and suspension are now the norm in the U.S. In the U.K., according to Simpson Millar (Education Law Specialists in London), there are more than two hundred sixty thousand children and young people registered as having special education needs, and in England, they are building nineteen new schools for autism spectrum disorder (ASD) students.

According to Dachel, a veteran schoolteacher for more than thirty years and mother of an adult autistic son, “Schools aren’t focused on academics like they have been in the past. Today, they are busy addressing mental health issues and providing an atmosphere where children are simply able to function.” She says, “It’s clear as an educator that our kids are falling apart and we cannot delude ourselves into believing things are like they were twenty-five years ago. What we have for schools today is a combination of nursing home, walk-in clinic and special education department.”

Do a search for “schools, behavior,” “schools, special education,” or “schools, clinics,” and you’ll find an endless supply of articles featuring stories about the mental health problems currently crippling our schools and students. Obsessive-compulsive behavior, social anxiety, panic disorder, agoraphobia, separation anxiety, generalized anxiety, post-traumatic stress, eating disorders, etc. are widespread. Additionally, “calming area,” “self-selecting place,” “therapeutic day school,” “asthma zone,” and “medically fragile” are the new catch

In the U.K., there are more than two hundred sixty thousand children and young people registered as having special education needs.

“If all of these stories we’re talking about aren’t the result of our out-of-control vaccinate-every-child-over-and-over vaccine schedule, please tell me what is.”
Anne Dachel

phrases found in these stories. Sadly, all of these sick and disabled children are changing what we’ve always thought of as public education, and it’s not only a disaster for students and teachers, it’s breaking the budget. Schools everywhere are in crisis, scrambling to find money to pay for infrastructure and services, as evidenced in articles in Great Britain and Scotland. Jan. 23, 2017, *BBC News*: “School Budgets Near Breaking Point, say Head Teachers.” Aug. 18, 2017, (U.K.) *Scottish Sun*: “Over 650 Families in Limbo After Virtual Autism Support Service in Perth Forced to Close Immediately.”

“What’s happening in our schools—the explosion in special needs students, out-of-district placements, more and more one-on-one-aides, newly added in-school clinics and mental health services—all of this is changing the face of education in America and the cost is enormous,” says Dachel.

Today, the U.S. national average of special education students (SPED) is 13 percent and yet there are plenty of cities reporting much higher numbers. For example, in Woodland Hills, PA, 25 percent of children are SPED; in Staten Island, NY, 24 percent; in Fitchburg, MA, 23.5 percent; and in Waterville, ME, 23 percent. And when we look at other developed countries, we learn that they, too, have exceptionally high numbers. In Ireland, 25 percent have a learning disability, and in the U.K. and the Netherlands that number is an alarming 26 percent. A school district where 13-26 percent of the students have special education needs in the developed world is no longer a rare phenomenon.

WHAT HAPPENS TO THE CHILDREN?

So what happens to these children in school? Many of them are being medicated: May 3, 2016, *The Washington Post*: “CDC Warns that Americans may be Overmedicating Youngest Children with ADHD,”

Some are being locked in closets: Sept. 5, 2017: *Huffington Post*: “Schools, Please Stop Locking Kids in Closets.”

And some are being sent home—when teachers are not able to deal with serious behavioral problems including attacks on other students: July 31, 2017, *Calla.co*: “Surge in Number of Primary School Children Expelled

for Attacking Teachers.”

Many articles talk about in-school brutality on teachers as well. According to one story: Sept. 25, 2017, *Brampton Guardian* titled: “Violent Attacks on Teachers: ‘I’m Afraid to Go into the Classroom,’” there were seven thousand student attacks on teachers in the Regional Municipality of Peel, Canada, last year. The article states, “teachers are wearing protective gear” and “elementary school attacks include teachers being bitten, kicked, scratched, punched and threatened.”

In Britain and Ireland, there have been huge increases in the number of students permanently excluded from school. Oct. 18, 2017, *UK Daily Mail*: “Unofficial Exclusions Used too Readily to Deal with Special Needs Pupils.” Reportedly, an estimated twenty-six thousand children and young people with autism in the UK were unlawfully excluded last year and as a result denied a basic right to education.

THE BIG LIE

Years ago, when I first started sharing information with Dachel, I remember her repeatedly saying the really Big Lie we are being spoon-fed is the one about autism—which she has written a book about called *The Big Autism Cover-Up: How and Why the Media Is Lying to the American Public*. Those in power began this lie by saying that autism was “genetic,” but as the number of children with autism skyrocketed from one in ten thousand in the 1970s to one in forty-five in 2015, that lie morphed into an even bigger one of “better diagnosis.” Then we had the neurodiversity movement, which worked furiously to convince the public that brain inflammation and immune dysfunction are normal and acceptable parts of childhood that should be embraced and celebrated.

Now Dachel is screaming from the rooftop about the latest really Big Lie regarding the massive physical and mental health deterioration of our children. No longer able to deny the fact that our schools have become war zones, the media are once again in cahoots with its pharmaceutical advertisers, pushing endless stories blaming the poor behavior, health and learning of our children on “trauma” in the home. *Newsweek* recently criticized parents for “Adverse Child-

hood Experiences” (ACEs) within the home, saying one-half of America’s children have experienced trauma: Oct. 20, 2017, *Newsweek*: “Children’s Mental Health: Nearly Half of U.S. Kids Have Experienced Trauma.” *The Washington Post* wrote on Oct. 19, 2017: “Almost Half of D.C. Children Have Suffered a Traumatic Experience, According to Federal Survey.” And *CNN* called out parents for the “toxic stress” they’re causing in children. Oct. 4, 2017, *CNN*: Little Kids and ‘Toxic Stress’: “We Can Solve This.” By conveniently placing the blame on parents, officials can say they have the definitive answer and ignore looking deeper into what is really making our children so sick. This blame game is reminiscent of the “refrigerator mom” theory health authorities wrongly touted as the cause for the then-rare cases of autism in the 1950s.

Like Dachel, I’m not going to assert that every problem facing children today is the fault of an out-of-control, ever-increasing vaccine schedule—currently seventy doses of sixteen vaccines—but in my opinion, injecting poisons such as mercury, aluminum, formaldehyde, Polysorbate 80, MSG, aborted fetal tissue, etc. into our children beginning at birth and in utero, is the number one culprit adversely affecting our children’s health. That said, we must realize that we are living in a virtual toxic soup. The food we feed our children is not food, the toxins we expose them to are known carcinogens and they spend an unprecedented amount of time on screens and surrounded by Wi-Fi. The average American child spends over seven hours a day in front of a radiation-emitting screen. Do the math, that’s over one hundred days per year of childhood lost to devices!

To be fair, there are of course instances where “trauma” or “toxic stress” can seriously affect a child’s health and education, especially when those “ACEs” include physical and emotional abuse or neglect. However, when overnight there are literally dozens of nearly identical stories blaming bad parenting (parents who discourage open communication, parents who let their children watch TV, parents who yell a lot, parents who are emotionally distant, parents who spank their kids, and helicopter parents) for our children’s poor health, we need to think

critically and question who is benefiting from such a well-orchestrated media campaign. As Dachel says, “I’ve heard horrible stories about the home lives of kids. I’ve worked with kids Ma Barker might have raised, but they weren’t like so many kids we are seeing today. This bogus theory was to be expected, and it’s a brilliant move on the part of doctors and health officials who want to shift the conversation away from the vaccine controversy.”

Experts not only blame our children’s poor mental health on bad parenting, but also a range of other health issues including heart, lung and liver disease, cancer, and obesity: Sept. 17, 2017, *Worcester Telegraph*: “Addressing Childhood Traumas and Their Lifelong Implications.” And then there’s this from the Washington University School of Medicine/St. Louis, Oct. 30, 2017: “Early Childhood Adversities Linked to Health Problems in Tweens, Teens.” These reports say “We’ve known toxins in the environment can contribute to disease, but this study suggests that kids can experience physical and mental health problems from exposure to psychosocial ‘toxins’ too.” So there you have it...now we will blame ACEs for both mental and physical health problems in kids today so we no longer have to look at the environmental factors, specifically vaccines.

WHO IS ASKING WHY?

Unbelievably, I have not read one mainstream news article about our school crisis that objectively asks *why* our children are doing so poorly psychologically, emotionally and behaviorally—not to mention physically. Why are more than one in two children in the U.S. chronically ill? Seizures, asthma, allergies, diabetes and obesity are all prolific among children in schools today. I included obesity in this list of ailments on purpose, because vaccines cause that too (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4982359>). One would think health professionals and the media would want to know *why* there has been such an incredible explosion of poor physical and mental health in children. In St. Louis up to four thousand students have asthma and six died last year. Sept. 9, 2017, KLPR-TV, St. Louis, MO: *Pulse of St. Louis*, “Combating Asthma in St. Louis and Alzheimer’s Awareness.” Included in this story is the fact that the district is working with the American Lung Association to educate teachers, students and parents about the condition.

Will this solve the problem? I doubt it. Instead, it will probably just increase pharmaceutical products for affected students—the same way that adding new health clinics to schools will increase vaccination. Aug. 13, 2017, Chambersburg (PA) *Public Opinion News*: “CASHS Clinic Aims to Offer Student Vaccinations.”

And then there are the stories like this one, Sept. 6, 2017, *New York Daily News*: “Finally Getting Serious About Dyslexia.” Like autism, we are supposed to believe dyslexia has always been here and as a result of better diagnosing, we’ve finally realized that one in five kids has it. But according to this article, it’s not such a bad thing because lots of really cool people like Bill Gates have it. Here, it’s worth mentioning that dysgraphia (which affects writing ability) and dyscalculia (affecting mathematical processing) are also on the rise.

We’d be remiss not to look at the soaring number of teen suicides

in both the U.S. and the U.K. These articles explain just how worried everyone is about it, but are they looking in the right place for answers? Aug. 6, 2017, *KSL-Salt Lake City*: “Safe UT App Making Inroads Despite 36 Youth Suicides So Far in 2017” and Feb. 19, 2017, *Express.co.uk*: “Children Committing Suicide Hits 14-year High.” Is it stress? Bullying? Social media? Home life? Maybe. Maybe not.

Coverage of attention deficit hyperactivity disorder (ADHD) is also getting a lot of press. This article, July 31, 2017, *KRISTV*: “ADHD Rising Steadily,” talks about a new report from the Centers for Disease Control and Prevention (CDC) estimating that 9.5 percent of children ages three to seventeen in the U.S. have been diagnosed with ADHD. The explosion in this disorder is once again explained by better diagnosing, and the recommended best treatment is “medication.”

Could there be a connection between soaring rates of teen suicide and the psychotropic drugs being prescribed for conditions like ADHD? Not according to the CDC—the same agency, which based on their own research, has known for more than a decade that measles, mumps, rubella (MMR) vaccines contribute to autism. Watch the documentary *Vaxxed* for the whole story.

ISN'T ANYONE WORRIED?

Have we obliviously surrendered to the learning problems and mental health disorders in our children? Do we no longer expect our kids to be normal? Just as with the explosion in autism, it seems no one is really worried. As Dachel says, “No one cares what is happening to our kids, and if you haven’t picked up on that yet, you should join Autism Speaks [an uncritical autism advocacy organization] and pretend that blue lights matter. Our schools, especially elementary schools, are mental wards. We have lots of calls for awareness, policy changes, workshops, better understanding, etc. but these things are not going to put a stop to the increasing numbers of injury. It seems today we expect our children to be injured. We’ve all been schooled to accept the damage, physical and developmental. Given enough time, will the world not remember when physical restraints and seclusion rooms weren’t typical of school districts? Or will we remember a time when behavior coaches weren’t regular members of the staff in elementary schools?”

Dachel used to believe that the number of autistic children would get so high that the media, doctors and health officials would have to recognize that something was terribly wrong. *That never happened*. “The rate was never a concern. A whole month of celebrations (April), an official organization that is supposed to speak for autism, and a total lack of interest on the part of officials and doctors doomed autism to forever be a medical curiosity we have all the time in the world to figure out.” According to Dachel, the real, undeniable issue happening everywhere is the mental health crisis in our schools. “Try as they might, this can’t be filed away under better diagnosing or ‘these kids have always been here.’ The clock is ticking. They’ll blame social media, stress, trauma at home...but it can’t be dismissed.”

And what about the mental health and wellbeing of our teachers? July 1, 2017, *The Telegraph*: “Stressed Teachers are Being Offered Electric

Shock Therapy to Combat Anxiety and Depression.” According to Leigh Academies Trust in Kent, England, there is now a device being used to “have a positive impact on levels of anxiety, depression and sleep disorders—all symptoms of stress among its staff.” Other adults affected by mental health disorder include university students. Those requiring special consideration in exams due to mental health problems have risen exponentially in the past five years. July 9, 2017, *UK Independent*: “Number of University Students Claiming Special Circumstances for Mental Health Problem ‘Soars.’” And this article explains that the number of students in higher education with a disability has more than tripled in ten years: Oct. 27, 2017, *Independent Irish News* (Dublin): “Increase in Students with a Disability in Third-Level—but No Change in Funding.”

Seeing hundreds of stories about schools dealing with increasingly disabled and behaviorally challenged students should make everyone scared about the future. “Teacher shortages, kids suspended, critically ill students, kids who can’t learn normally. It just goes on and on, and will only get worse if we don’t address the real causes,” says Dachel.

How are we going to deal with so many students who can’t function normally? What will the adult population soon look like? Imagine what’s coming next year...in five years...in ten years. Will we somehow learn to adjust? This disaster is a time bomb. Schools are battlefields. This “new normal” should not only give pause, it should cause alarm...deafening alarm. ☹☹

JOURNAL NOW AVAILABLE AS A DIGITAL TALKING BOOK FOR THE VISUALLY IMPAIRED

We now have our journal converted into an audio format for the visually impaired. Special software is required for this, such as Dolphin Easy Reader. Go to the JOURNALS tab on our home page. Starting with Fall 2011, click the journal you are interested in. Please tell others! Many thanks to Amy Adams of ePubUSA.com for this service!

Food Feature

CASSAVA: A VERSATILE AND SATISFYING GRAIN-FREE OPTION

By Megan Stevens

Cassava is a root vegetable native to the Americas. Cassava (scientific name *Manihot esculenta*, Crantz) goes by many common names, including yuca or yucca, manioc and Brazilian arrowroot. (Additional Brazilian names include *mandioca*, *aipim* or *macaxeira*).¹ Tapioca (in North America) refers to the starch extracted from the cassava root.

The earliest firm evidence for cassava cultivation comes from a Mayan site dating back fourteen hundred years. Brazilians in the Amazon region may have domesticated cassava directly from a wild plant.² In the sixteenth century, Portuguese traders from Brazil introduced cassava to Africa.

In the present day, cassava is a staple food for over half a billion people worldwide.³ Over ninety countries cultivate cassava, which is the third most common complex carbohydrate consumed (after rice and maize) in Asia, Africa and Central and South America. Nigeria is the world's largest cassava producer.⁴ As a crop, cassava is drought-tolerant and can handle acidic soil and the removal of its leaves by pests.

CASSAVA'S PROPERTIES

There are both sweet and bitter varieties of cassava, with the sweet varieties more commonly grown for consumption. Both varieties contain antinutrients—the bitter varieties to a far greater extent.^{3,5} In addition, cassava contains naturally occurring toxins called cyanides or “cyanogenic glucosides” (the plant toxins linamarin and lotaustralin), which concentrate heavily in the peel but also are present in the flesh. Interestingly, cassava grown during times of drought is much more toxic.

A moderate intake of cassava's cyanide compounds (such as those also found in apple cores and the pits of stone fruits) can produce a headache followed by mild heart palpitations. In the absence of proper preparation techniques (discussed in the next section), a number of more serious health conditions also can result from overconsumption of the cyanide found in cassava.^{3,6,7,8} These conditions include goiter, pancreatitis and a neurological disorder called ataxia or konzo, which affects the ability to walk. A person who experiences severe cyanide poisoning will exhibit symptoms such as

vertigo, vomiting and collapse within four to five hours. The customary treatment is an injection of thiosulfate, which allows the patient's body to detoxify by converting the poisonous cyanide into thiocyanate.

TRADITIONAL CASSAVA PREPARATION

Fortunately, there are ways to neutralize the cyanide and also reduce cassava's phytic acid content (see Phytic Acid Content of Cassava, page 82). Notably, the enzyme linamarase is naturally occurring within cassava and “acts on the [cyanide] glucosides when the cells are ruptured.”⁹ Many cultures traditionally have soaked their cassava roots in water, grinding them into a paste and spreading the paste out in the sun. Within five hours, the linamarase breaks down almost 85 percent of the cyanide, allowing the cyanogenic glucosides to convert to hydrogen cyanide (HCN), which then evaporates.

Other traditional practices include peeling the root and soaking, boiling, dehydrating and/or fermenting the cassava. Although peeling and thorough cooking generally are sufficient to make the sweet varieties safe for consumption, the bitter varieties require more steps to make them edible, such as squeezing, pressing and fermenting.¹⁰

Fufu and *gari* are examples of traditional foods that safely reduce cyanogenic compounds using fermentation.¹¹ Both are important staples in Africa. Preparation of *fufu* involves mashing cassava root and allowing the cassava to ferment with *Lactobacillus* bacteria.¹² *Gari* calls for peeling, grating, draining, pressing and



fermenting the cassava pulp, and then amending the result by adding various ingredients such as palm oil, vegetable sauce, sugar, coconut, roasted groundnuts, dry fish or boiled cowpea (a leguminous seed).¹³

MODERN CASSAVA FLOUR

Grain-free enthusiasts have promoted cassava flour as the “holy grail” of grain-free flours because of its ability to substitute in many recipes for wheat flour.¹⁴ Production of cassava flour entails peeling, dehydrating and grinding the whole root. However, the manufacture of a high-quality cassava flour, “while simple in principle... requires great care.”¹⁵ This is because cassava presents some unique challenges.

On a small household scale, sun-drying and fermenting cassava is a time-honored traditional practice that has obvious benefits in terms of reducing antinutrient levels. For commercial cassava flours produced on a larger scale, however, fermenting cassava in the sun is difficult to control and can pose several safety risks. First, if the sun is not out or the outside temperature is not high enough and the material does not dry out sufficiently, the cassava flour may retain a moisture content that exceeds safe limits. Microbial growth will thrive in the moisture, increasing the risk of mold and other undesirable microorganisms. When allowed to sit for too long, cassava quickly grows *Aspergillus flavus*, a mold that produces toxic and carcinogenic aflatoxins.⁵ It is important, therefore, to promptly harvest and process young cassava roots and pay attention to drying parameters and moisture content. Even with adequate monitoring of moisture content, sun-drying cassava can expose it to inadvertent contamination with unwanted microorganisms or debris that can escape visual inspection. In addition, overly prolonged sun-drying can alter the chemistry of the starches in the flour.

The safest (from a mold standpoint) modern-day alternative to fermenting in the sun is to oven-dry the cassava and minimize storage time after harvesting. Ensuring a short storage time between harvest, followed by thorough washing, peeling and moderate heat application can drastically reduce mold risks. Industrial drying ovens and appropriate drying times can reduce the microbial presence to safe or negligible levels

and produce a moisture content that is low enough to prevent further microbial growth after packaging and subsequent storage. Use of proper processing, drying and monitoring techniques also substantially reduces cyanide-based toxins,¹⁶ making it possible to produce cassava flour with cyanide levels well under the food industry standard for cassava flour of ten parts per million (ppm).¹⁷

BENEFITS OF CONSUMING CASSAVA

Cassava provides complex carbohydrates suitable for many who have trouble digesting other carbohydrates such as rice, quinoa or potatoes. Cassava also contains significant amounts of calcium, phosphorus and vitamin C.¹⁸ On the other hand, cassava root does not provide any protein or fat, and populations that are overly reliant on cassava as a primary food staple can end up nutrient-deficient.¹⁹ In contrast to the root, cassava’s leaves are high in protein and particularly the amino acid lysine, although they must be well cooked to dissipate the hydrocyanic acid content. A culinary use in Sierra Leone involves extensively pounding and shredding the cassava leaves, rinsing them many times to remove the bitter flavor and using them to cook *palaver* sauce.²⁰ In locations such as Guyana, a process that involves boiling and then slowly simmering bitter cassava root sap creates a thick, spiced syrup called *cassareep*; the cooking eliminates the poisonous cyanide compounds.²¹

Many individuals and researchers are interested in cassava’s resistant starch content.²² Resistant starch is a prebiotic that remains undigested (i.e., “resistant”) in the small intestine and then feeds microflora when it ends up in the colon. Its fermentation in the colon helps to provide a healthy inner ecosystem through the production of a beneficial short-chain fatty acid called butyrate, which induces differentiation of colonic regulatory T-cells.²³ T-cells are responsible for creating healthy immune responses and reducing inflammation. With age, humans produce fewer T-cells, making it helpful to take in more prebiotic foods. It is common to observe improvement with issues such as constipation after increasing one’s intake of resistant starch.

Heating and cooling cassava flour or root ensures that the cassava is safe to consume and also catalyzes production of cassava’s resistant starch.²⁴ (The tapioca starch extracted from cassava root does not contain high amounts of resistant starch, however.) All high-quality brands of cassava flour will have already heated and cooled their cassava, which means the resistant starch is already present. Thus, any recipe that uses cassava flour will provide resistant starch.

PHYTIC ACID CONTENT OF CASSAVA

Cassava has a high phytic acid content compared to other roots such as potatoes and sweet potatoes, with phytate levels measured at 0.133 percent of the fresh weight of the cassava root.²⁵ Phytates inhibit the absorption of minerals and other nutrients. Cooking and/or fermenting cassava root reduces its phytate content considerably.²⁶ One study measured the phytate levels in various traditional Ghanaian dishes, including a dish called *konkonte* prepared from fermented cassava.²⁷ Although phytate levels were high in some of the other dishes, the investigators detected zero

phytates in *konkonte*, attributing this result to the fermentation process. This example provides excellent encouragement that fermenting cassava may not only reduce phytates, but in some instances, eliminate them altogether.

The phytate content of commercial cassava flours varies by brand, depending on the processes used to reduce the antinutrients. In general, fermentation reduces phytates to a greater extent than oven-drying.²⁶ (When baking with oven-dried cassava flours, consumers can further reduce phytates by using the techniques discussed in the Recipes section.)

ON THE HORIZON

Unfortunately, field trials for a genetically modified (GM) cassava have been taking place for over five years²⁸ and may pose a threat to cassava's genetic heritage. The stated aim of the GM-biofortified cassava is to provide more zinc, iron, protein, vitamin A and vitamin E to undernourished consumers in low-income nations who rely on cassava as a staple, and also to reduce cassava's levels of toxic cyanogenic glucosides and "delay postharvest deterioration."²³ The Bill & Melinda Gates Foundation, an aggressive proponent of GM foods, is providing the funding for the not-yet-approved "BioCassava Plus."²⁹ Industry food scientists also have tried fortifying cassava products with soybeans in an attempt to address cassava's "macronutrient and micronutrient deficiencies."³⁰

RECIPES

I have found that it is preferable to ferment cassava flour in the refrigerator rather than at room temperature. The general principle is to combine cultured or soured raw milk with cassava flour into a batter and let the batter sit in the refrigerator for three to five days. The probiotics in the raw milk predigest the antinutrients in the cassava. I use this method weekly with my delicious grain-free sourdough waffle batter, which I store in a mason jar. Once fermented, the batter provides an easy breakfast each morning. For further grain-free recipes incorporating cassava flour (including butternut squash muffins, sandwich bread, coffee cake and pumpkin pancakes), visit my Eat Beautiful blog.³¹

When buying cassava flour, be sure to obtain

it from a company that uses appropriate processes to control temperature, moisture and toxicity (see recipes). With an awareness of proper techniques to eliminate cassava's naturally occurring cyanide compounds and minimize phytic acid, cassava can become a satisfying addition to a varied, nutrient-dense diet.

SOURDOUGH CASSAVA WAFFLES

Makes 8 waffles.

- 1 1/4 cups cassava flour*
(I recommend Otto's Naturals brand)
- 4 eggs, preferably from pastured chickens*
- 1 cup sour or cultured raw milk**
- 1 cup of a hard, aged cheese (e.g., Parmesan, Romano, Pecorino, Asiago), grated**
- 1/3 cup animal fat (such as lard, duck fat, butter or ghee), melted and slightly cooled, or avocado oil*
- 1/2 teaspoon baking soda*
- 1/2 teaspoon sea salt*

*For a dairy-free alternative that uses sauerkraut juice to ferment the cassava at room temperature, visit my Eat Beautiful blog.³²

Whisk together cassava flour, baking soda and sea salt. Puree or whisk together wet ingredients (eggs, sour milk and melted fat). Pour the wet ingredients into the dry and fold together. Add the cheese.

Store batter in the refrigerator in a quart-size mason jar. Store for a minimum of 24 hours to sour the dough and reduce phytic acid. Storing for three to five days will produce a stronger sourdough flavor and greater reduction in antinutrients. Cook in waffle iron, being careful not to overflow the batter.


GRAIN-FREE SOURDOUGH BREAD

Makes one loaf (about 10 slices).

- 2 cups raw nuts or seeds of choice (soaked for two hours in warm filtered water, then drained and rinsed)*
- 1/2 cup filtered water*
- 1/8 cup sauerkraut liquid*
- 3/4 cup cassava flour (such as Otto's Naturals brand)*
- 3/4 cup chia seed meal (blend 2 cups chia seeds in a dry, high-powered blender on medium speed for 10 seconds, measure after blending)*
- 2 eggs*
- 1/4 cup tallow or butter (melted and cooled) or avocado oil*
- 2 tablespoons raw honey*
- 1/2 teaspoon sea salt*
- 1/2 teaspoon baking soda*

Purée wet nuts or seeds in a high-powered blender with filtered water until smooth (about 50 seconds). Add sauerkraut juice. Purée again until just combined (about 10 seconds). Transfer to a ceramic bowl and cover loosely with a towel or plate. Place in a very warm location (ideally 95 to 105 degrees Fahrenheit) for 12 hours or overnight. A dehydrator or oven with the light on works best, but the countertop will work, too, if your home temperature is 70 degrees Fahrenheit or higher. Fermentation will still occur at 70 degrees but will take about 24 hours.

After soaking for 12 to 24 hours, preheat oven to 325 degrees Fahrenheit. Grease a loaf pan. Sift together cassava flour, chia seed meal, baking soda and sea salt. Set aside.

Place eggs, fat of choice (tallow, butter, avocado oil or other high-quality fat), and honey into a stand mixer or food processor and mix on medium speed until completely blended (about 30 seconds). Add nuts or seeds and cassava flour mixture. Mix with the paddle attachment until thoroughly combined, but not over-mixed. Pour into the greased loaf pan. Bake until a sharp knife inserted into the center comes out clean (about 50 to 55 minutes). Cool completely before removing from the pan and slicing. 

Megan Stevens has spent over five years overseeing her family's healing on a grain-free diet. She and her husband have owned a GAPS, paleo and Weston A. Price traditional foods cafe in Eugene, Oregon for seven years. She meets with clients on healing journeys as a recipe consultant, teaching individuals how to cook and thrive on GAPS, paleo or Weston A. Price traditional food. She also is the creator of the Eat Beautiful blog (www.eatbeautiful.net) and author of the cookbook and eCookbook, Eat Beautiful: Grain-free, Sugar-free and Loving It.

REFERENCES

1. Stuart's Brasil. Aipim, mandioca, manioc, pão-de-pobre, cassava (*Manihot esculenta*). <http://stuartsbrazil.blogspot.com/2009/01/aipim-mandioca-manioc-pao-de-pobre.html>.
2. Hillocks RJ, Thresh JM, Bellotti AC (Eds.). *Cassava: Biology, Production and Utilization*. Oxon, UK: CABI Publishing, 2002.
3. Montagnac JA, Davis CR, Tanumihardjo SA. Nutritional value of cassava for use as a staple food and recent advances for improvement. *Comprehensive Reviews in Food Science and Food Safety* 2009;8: 181-194.
4. Oxford Business Group. Nigeria raises the economic profile of cassava. <https://www.oxfordbusinessgroup.com/analysis/staple-future-new-initiatives-aim-raise-economic-profile-cassava>.
5. Chikezie PC, Ojiako OA. Cyanide and aflatoxin loads of processed cassava (*Manihot esculenta*) tubers (garri) in Njaba, Imo State, Nigeria. *Toxicol Int* 2013;20(3): 261-267.
6. Lixandru M. Properties and benefits of cassava. Nature Word, March 22, 2015. <https://www.natureword.com/tag/cassava-and-goiter/>.
7. Wikipedia. Konzo. <https://en.wikipedia.org/wiki/Konzo>.
8. Rusli M, Kao L, Sara-Nunez L, Perman A. Acute pancreatitis after consuming 3.5 pounds of cassava. *JSM Gastroenterol Hepatol* 2015;3(3): 1047.
9. O'Hair SK. Cassava: toxicities. Purdue University, Center for New Crops & Plant Products, 1995. <https://hort.purdue.edu/newcrop/CropFactSheets/cassava.html#Scientific%20Names>.
10. Kwok J. Cyanide poisoning and cassava. Food Safety Focus 2008, Issue 19. Hong Kong, Centre for Food Safety. http://www.cfs.gov.hk/english/multimedia/multimedia_pub/multimedia_pub_fsf_19_01.html.
11. Irtwange SV, Achimba O. Effect of the duration of fermentation on the quality of garri. *Curr Res J Biol Sci* 2009;1(3): 150-154.
12. Sanni AI, Morlon-Guyot J, Guyot JP. New efficient amylase-producing strains of *Lactobacillus plantarum* and *L. fermentum* isolated from different Nigerian traditional fermented foods. *Int J Food Microbiol* 2002;72(1-2):53-62.
13. Integrated Cassava Project. *Gari*. <http://cassavabiz.org/postharvest/Gari01.htm>.
14. Bryan L. 5 things you need to know about cassava flour. Downshiftoology, July 7, 2017. <https://downshiftoology.com/5-things-you-need-to-know-about-cassava-flour/>.
15. Food and Agriculture Organization (FAO). Cassava flour and starch: importance of quick

processing. <http://www.fao.org/docrep/X5032E/x5032E02.htm>.

16. Otto's Naturals. FAQs. <http://www.ottosnaturals.com/faq/>.
17. Burns AE, Bradbury JH, Cavagnaro TR, Gleadow RM. Total cyanide content of cassava food products in Australia. *J Food Compos Anal* 2012;25(1): 79-82.
18. Salvador EM, Steenkamp V, McCrindle CME. Production, consumption and nutritional value of cassava (*Manihot esculenta*, Crantz) in Mozambique: an overview. *J Agric Biotech Sustain Dev* 2014;6(3): 29-38.
19. Gegios A, Amthor R, Maziya-Dixon B, et al. Children consuming cassava as a staple food are at risk for inadequate zinc, iron, and vitamin A intake. *Plant Foods Hum Nutr* 2010;65(1): 64-70.
20. Eat Your World. Leafstews/plasas. http://eatyourworld.com/destinations/africa/general_sierra_leone/sierra_leone/what_to_eat/leaf_stews_plasas.
21. Nelson C. What is cassareep? How to make cassareep for Guyanese pepperpot. The Spruce, April 4, 2017. <https://www.thespruce.com/what-is-cassareep-2138254>.
22. Ogbo FC, Okafor EN. The resistant starch content of some cassava based Nigerian foods. *Nigerian Food Journal* 2015;33(1): 29-34.
23. Furusawa Y, Obata Y, Fukuda S, et al. Commensal microbe-derived butyrate induces the differentiation of colonic regulatory T cells. *Nature* 2013;504: 446-450.
24. Pereira BLB, Leonel M. Resistant starch in cassava products. *Food Sci Technol* 2014;34(2).
25. Phillippy BQ, Bland JM, Evens TJ. Ion chromatography of phytate in roots and tubers. *J Agric Food Chem* 2003;51(2): 350-353.
26. Food and Agriculture Organization. Phytate. <http://www.fao.org/docrep/t0207e/T0207E09.htm>.
27. Annor GA, Debrah KT, Essen A. Mineral and phytate contents of some prepared popular Ghanaian foods. *Springerplus* 2016;5: 581.
28. Donald Danforth Plant Science Center. BioCassava Plus. <https://www.danforthcenter.org/scientists-research/research-institutes/institute-for-international-crop-improvement/crop-improvement-projects/biocassava-plus>.
29. Nayar A. Grants aim to fight malnutrition. *Nature*, April 14, 2011. <https://www.nature.com/news/2011/110414/full/news.2011.233.html>.
30. Kolapo AL, Sanni MO. A comparative evaluation of the macronutrient and micronutrient profiles of soybean-fortified gari and tapioca. *Food Nutr Bull* 2009;30(1): 90-94. <http://eatbeautiful.net/recipes/>.
31. Stevens M. Cassava flour sourdough waffles. <http://eatbeautiful.net/2017/07/09/cassava-flour-sourdough-waffles-grain-free-reduce-phytic-acid-increase-nutrition-sourdough-learn-make-grain-free-paleo-sourdough-recipes/>.

NEW PERK FOR WAPF MEMBERS-ONLY FACEBOOK!

We have created a closed Facebook group for WAPF members who are interested in connecting with one another and with chapter leaders worldwide. This is a perfect forum for advice on how to implement the Wise Traditions diet or to ask particular questions about *Nourishing Traditions* or other similar recipes. Go to facebook.com/groups/westonapricefoundation/ or look up "The Weston A. Price Foundation Members' Group" and ask to join today!

THE FOOD AT WISE TRADITIONS 2017!



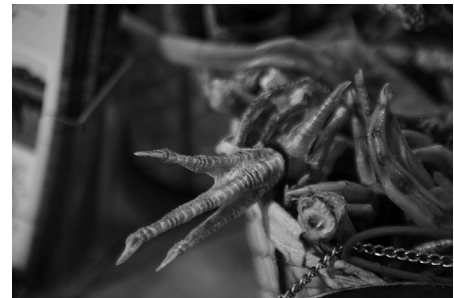
Sally Fallon Morell recognizes Chefs Eric LeClair and Collin Clemons, along with Maureen Diaz and Rosie Ueng who together prepared five splendid meals.



A chef prepares nourishing broth for the Saturday lunch using chicken feet (below) donated by White Oak Pastures.



Pastry Chef Ashley Reiter was the genius behind our best conference desserts ever, including the bone marrow custard, below.



A youngster, below, enjoys a Wise Traditions meal, including delicious kombucha from Buchi Kombucha.



Past chapter leaders thrilled to have our conference in their city, Will Winter and his wife Rebekah clown around as chefs.



Farm and Ranch

ELEVENTH ANNUAL GUIDED FARM VISIT: A LOOK AT WHAT FARM-TO-TABLE REALLY MEANS

By Will Winter, DVM

This year was about a glimpse of farm life in Lake Wobegone country, life on the edge of the prairie in Minnesota, actually life on the edge.

Every year, sixty of us at the Wise Traditions conference get up before sunrise, crawl out of our warm beds and pile onto our warm and luxurious bus, putting our collective lives into the hands of our intrepid bus driver and set off into parts unknown. On-board farm breakfast arrives as freeways change into two-lane black-tops, then dirt roads, then to narrow curving farm driveways. Suburban sprawl reluctantly gives way to brown open fields, tall endless rows of corn awaiting harvest, then a pasture here, a woodland glade there. Hello! We have come to see from whence our food comes.

Every year, several farmers wake up even earlier than we do and begin to brace themselves for this strange busload of the curious. As they crawl out of their beds and pull on their boots and coveralls, they may be asking, “Now, why was it again that I agreed to do this?” And then, at last, it is time. And this unusual and wonderful dance begins, when people from two worlds, city mouse and country mouse, get a chance to meet. For the next ten to twelve hours we will get to experience people from different walks of life. We will be stepping on the land they love and seeing it with their eyes.

I’m describing the annual WAPF Guided Farm Visit, which takes place every year on the last full day of the conference. And each year it is different. Each year we see what it’s really like on another slice of farm and ranch life. We want it to be real, warts and all. Not some story book fantasy, not Old McDonald’s farm (sorry, folks, that doesn’t really exist), nor is it like a reality TV show. We may get our pant legs wet in the dewy morning grass and may step in cow poop, but we come away changed inside somehow—as well as happy to learn that there really are still all these crazy, inspiring people, willing to sacrifice everything, still interested

in creating wholesome, humane, nutrient-dense farm food so the rest of us can thrive.

This year was about a glimpse of farm life in Lake Wobegone country, life on the edge of the prairie in Minnesota, actually life on the edge. This is not an easy calling. There were still thick crystals of white jack frost on the hayracks before the sun had warmed the wagons. We sat on the hay bales, wrapped in blankets generously provided by the farm family as we rode out to see the grass-fed cattle. As curious of us as we were of them, they peered at us from a few feet away, their breaths steaming, the bright shafts of morning sun piercing the clear blue sky and lighting up the plumes of frozen breath.

Satiated just from the noble presence of the beeves, and hearing the love from the farm family (it’s always so hard to ever leave...), we traveled down the road to a modest tie-stall dairy where the young couple milked cows twice a day, while caring for their three small children. A bonfire in the front yard greeted us and warmed our chilly hands, faces and feet. Not very many experiences are quite as enjoyable as drinking that delicious, velvety, chilled milk just a few hours after milking—from the cows we see right over there. We traced their day as they chilled the organic milk, then filtered it into half-gallon jugs to be hauled into town as full-fat, unhomogenized and raw milk for the city folks. Healthy, strong and vibrant, somehow these young farmers seem to be making it all work.

As evidence of the sweet harmony the making of great food brings, our banquet chef from the Hyatt Regency in Minneapolis, Collin Clemons, who had been providing us with cartloads of farm food for the past few days, sacrificed his day off to head to the little Mill St. Tavern in Cannon Falls where he spent his

morning preparing our tender grass-fed beef chuckrolls, slicing them as we arrived, the glistening pink slices of meat rolling off his knife as we sat down to eat, sharing our stories and enjoying the cornucopia of local squashes, colorful potatoes, caramelized onions and other vegetables from the garden. We broke the sourdough bread and slathered it with great gobs of raw farm butter.

The crystal-clear fall day was warming up now and the sun streaming in the large windows of the restaurant brought us cheer. During lunch, our chef told us how he had become inspired by the WAPF's uncanny ability to fill the hotel kitchen with over a semi-truck load of fresh local farm food, letting our own specialists invade the kitchen for a few days, working hand-in-hand to prepare all this stunningly healthy food.

We also heard from the man who grows free-range turkeys just outside Cannon Falls, over one hundred sixty thousand a year and what that is like, how different from factory farms. We were then able to visit the turkey farm, knowing that it would be virtually turkey-less given our tour was one week before Thanksgiving. Luckily for us, though, Ferndale Farms has one of the finest local farm stores in Minnesota where we were able to shop, snoop and sample. Smoked turkey anyone?

Only a couple of miles away we found ourselves doing something most people, carnivores included, have never done, and that perhaps some would not care to do: we visited Lorentz Meat Plant, a USDA slaughter plant, which was in full operation. Rated the most humane slaughter plant in the U.S., this is the same plant that Michael Pollan described in *The Omnivore's Dilemma* as "the glass abattoir." The fully-windowed viewing observatory straddles the kill floor on one side and is where the highest-ranking and most-respected meat cutters in the plant were killing bison. On the other side is the fabrication room, where men and women, swaddled in layers of hoodies, long johns and jackets, working all day at a brisk thirty-five degrees, were cutting, grinding and wrapping meat for Thousand Hills Cattle Company. We were able to meet many of the

staff and even though everything is a serious, somber affair, it was clear to all of us that these people approach their career as a sacred task. Obviously, it is a task that certainly not everyone could or would do, but they were clearly aware that they were serving others by the beauty of their work.

We circled back to Minneapolis as the early November darkness was falling. Just a mile or two from our hotel, we continued our exploration of the final but equally essential aspect of the farm-to-table movement: the distribution and direct sales in the cities. We were at The Uptown Locavore, an indoor farmers market, open year-round, where the farmer doesn't need to be present. This private buying club, not open to the public, springing from the Minneapolis WAPF chapter, designed and protected by the Farm-to-Consumer Legal Defense Fund, and operating fully on the honor system, makes available to its several hundred member families raw milk from cows, goats and sheep; grass-fed and pastured beef, goat, sheep, chicken, duck, turkey and eggs; vegetables; a full range of dairy products; as well as farm-made products such as kombucha, fermented krauts, jams, jellies, and much more. We were able to savor our day over local wines and beers, along with raw ice cream and desserts. And, so, alas, we bid each other au revoir, for another year, another fine time, and to all a good night. ☺☺☺



Paul Reese, of Honeymoon Creamery, showing his grass-fed dairy herd to the WAPF farm tour.



Outstanding beef producer, Jon Luhman, standing in his field.



WAPFers mob Will Wuinters' Uptown Locavore market, an indoor, year-round farmers market and private buying club.

Legislative Updates

UPDATE ON THE FARM BILL

By Judith McGeary, Esq.

Despite legislators' vows to get the Farm Bill through the House in 2017, it's clear at this point that it's not going to happen. The new target for the Farm Bill to get to the House floor is January or February of 2018.

The public comments and behind-the-scenes rumors indicate that the House Agriculture Committee is likely to go with a relatively standard "business as usual" approach to the bill. There may be tweaks here and there, but any major changes would most likely only happen if required by budget cuts due to the tax bill.

However, the discussion is already heating up among House members outside of the Agriculture Committee. In November, Representative Earl Blumenauer of Oregon filed H.R. 4425, a one hundred fifty-six page Food and Farm Act that is set out as an alternative Farm Bill, a complete replacement for the current approach. It's not going to pass in its entirety, but it's providing an important focal point for discussions.

Much of the discussion about Blumenauer's bill is focusing on its caps on subsidies, long a contentious issue, and the support for "specialty crops" (the statutory jargon for fruits and vegetables). But some of the lesser noticed provisions would be of greater benefit for the types of farmers that produce the nutrient-dense foods that WAPF recommends. For example, H.R. 4425 would create a special set-aside within the Environmental Quality Incentives Program (EQIP) for livestock producers who use pasture-based systems, and simultaneously block any EQIP funds for feedlots. It would also create a new loan program to help farmers and ranchers install "conservation structures," which would include improving permanent pastures. And it would authorize USDA to use Rural Development grants and loans for meat and poultry

processing infrastructure.

Another bill also provides possible amendments for the Farm Bill: H.R. 3941/S. 1947, the Local Food and Regional Market Supply Act, filed by senator Sherrod Brown (D-OH) and Representatives Chellie Pingree (D-ME), Jeff Fortenberry (R-NE), and Sean Maloney (D-NY). This narrower, but bipartisan bill, focuses heavily on funding various grant programs to support local foods and organics, such as increasing annual mandatory funding for the Farmers Market and Local Food Promotion Program and an organic certification cost-share. It does include one provision specifically for livestock producers, authorizing Rural Development and Farm Service Agency programs to be used to assist farmers with maintaining and increasing the production, processing, distribution and marketing of value-added, niche or regionally marketed meat and dairy products.

There is an important and valuable debate to be had about government involvement in agriculture, and there are myriad options—from the current approach (which everyone except massive agribusinesses agree is counterproductive), to a modified version that still relies on subsidies and grants but refocuses them on smaller and sustainable approaches, to the 1930s approach of "price supports" that addressed the unique problems of agricultural highs and lows, to taking the federal government out of the picture completely. The latter two options aren't even under discussion in Congress at this stage, however, so whatever their merits, they are not strong paths for activism at this moment.

There are also discrete reforms that could prove important. For example, in the previous issue of *Wise Traditions*, I discussed the PRIME Act, which would revoke the current federal prohibition on the sale of meat processed at

Judith McGeary is the Austin, Texas, chapter leader, an attorney and small farmer, and the executive director of the Farm and Ranch Freedom Alliance. She has a B.S. in biology from Stanford University and a J.D. from the University of Texas at Austin. She and her husband run a small grass-based farm with sheep, cattle, horses, and poultry. For more information, go to farmandranchfreedom.org or call (254) 697-2661.

a “custom slaughterhouse” to in-state consumers. The bill would not legalize the sale of such meat, but would leave it to each state to decide whether and how to allow meat processed at custom slaughterhouses to be sold to individuals and businesses within their states. If the bill can gain sufficient support (as evidenced by a strong co-sponsor list), it stands a chance of being added as an amendment to the Farm Bill.

WAPF will be doing email action alerts with more details and specific talking points early in 2018, please watch for them! Your activism truly makes a difference.

ANIMAL ID

In the last issue of *Wise Traditions*, I wrote about the USDA’s public meetings in the spring and summer of this year. The current Animal Disease Traceability (ADT) program requires some form of official identification when adult cattle (over 18 months) are moved across state lines; the identification can be a traditional low-tech ID like a metal brite tag. This limited, low-tech approach was put in place after a massive grassroots campaign against the National Animal Identification System (NAIS), which called for electronic ID and tracking of all livestock animals in every state.

When ADT was adopted, USDA indicated that there would be a second phase, in which the requirements for low-tech forms of ID when cattle are moved interstate would be extended to cover younger cattle, those under 18 months of age. That “Phase Two” of ADT was supposedly the topic of these public meetings when they were first announced. But it quickly became clear that USDA and its agribusiness allies had different plans, namely to try to revive significant portions of NAIS.

I attended the meeting in Texas, and worked with people in multiple states to ensure that the voices of a range of livestock owners were heard. At the Texas meetings and others, there was strong pushback against any attempt to mandate electronic ID.

Yet, at an agribusiness conference in late September, when USDA unveiled its “summary” of the meetings, it claimed that there was a general consensus to support moving ahead with electronic ID. More-

over, the USDA document handed out at the September meeting included imposing this new federal requirement intra-state, even if the cattle never cross state lines! While not as broad or all-encompassing as NAIS, this proposal would impose significant costs, burdens and government intrusion on small farmers who are raising cattle for their local communities.

At the agribusiness conference, USDA stated that it would publish its findings and recommendations in the Federal Register in October. But as of December 4, when this article goes to print, it has not done so. Viewed optimistically, this delay might suggest that the agency is reconsidering its position based on the pushback it got at the meeting and afterwards. The more likely explanation is simply that the bureaucracy moves slowly.

USDA also has a track record of publishing bad documents around the holidays—often the day before Thanksgiving, Christmas or New Years. This tendency is shared by many government agencies, presumably because it reduces the chances of any media coverage and makes it more difficult for grassroots groups that oppose the agencies to get the public’s attention. So please watch carefully for action alerts right at the end of the year.

The good news is that, unlike NAIS, we are aware of the issue and organized early in the process. We beat the program back once before, and we can do it again. ☺☺

CHILDREN AT WISE TRADITIONS 2017



Rosie Ueng teaches sauerkraut making at the Wise Traditions children’s program.



Allison Evans and Kelly Love, with her daughter, of Branch Basics which donated cleaning supplies for our hotel stay.

BACK ISSUES OF **Wise Traditions** AND OTHER INFORMATIVE LITERATURE

Fall 2006	Is Vitamin D Toxic?; Sunlight and Melanoma; Vegetable Oil Nightmare; Saturated Fat Attack; Picky Eaters.
Winter 2007	Children's Issue: Gut and Psychology Syndrome; Vitamins for Fetal Development, Traditional Remedies.
Fall 2010	Essential Fatty Acids; Magnesium; Healthy Skin; Sacred Foods for Children; Tale of Two Calves.
Winter 2010	Joel Salatin on the Politics of Food; Saving the Polish Countryside; Biological Farming; Glutathione in Raw Milk.
Summer 2011	Sulfur Deficiency; The Importance of Salt; The Senomyx Scandal; Why We Crave; Raw Milk Safety.
Fall 2011	Pork - Live Blood Analysis Study; Pork Recipes; The Accumulated Wisdom of Primitive People; Protein Primer.
Winter 2012	Vitamin A Synergies; The Story of Zinc; Natural Skin Cream; Slovenian Soups and Stews; Soy Infant Formula.
Spring 2013	Nutritional Roots of Violence; Glycine for Mental Stability; Pork Study; Homeopathy for Mental Illness.
Summer 2013	Our Broken Food Supply; The Marketing of Crisco; GMOs in Europe; Insights of a Meat Processor; Natto.
Fall 2013	GMO Dangers; Roundup Dangers: Culinary Traditions in Romania; The Battle for the People's Milk.
Winter 2013	Beyond Cholesterol; Cancer as a Healing Strategy; Grain Traditions in Russia; Push to Pasteurize Breast Milk.
Spring 2014	Dr. Price's Scientific Approach; Weston Price and the Fluoridationists; Cows and Climate; Economics of Raw Milk.
Summer 2014	Nutrition for the Elderly; A New Look at Alzheimer's Disease; In Defense of Wheat; Dangers of Vegetable Oils.
Fall 2014	What Causes Heart Attacks? The Myogenic Theory of Heart Disease; Thrombi in Heart Disease;
Winter 2014	Effects of Smart Phones on the Blood; Dangers of Smart Meters; Protection Against EMR; U.S. Dietary Guidelines.
Spring 2015	Cleansing Myths and Dangers; Toxicity and Chronic Illness; Gentle Detoxification; Great Nutrition Pioneers.
Summer 2015	Vaccination Dangers Issue.
Fall 2015	The Scandal of Infant Formula; Vitamin D in Cod Liver Oil; Cod Liver Oil Controversy; Fermented Fish Foods.
Winter 2015	Water Issue: The Fourth Phase of Water; Sewage in a Glass; Water Stressors; Teaching WAPF to College Students.
Spring 2016	Folic Acid and Glyphosate; Why We Need Saturated Fats; Cod Liver Oil Testing; Flint, Michigan Cautionary Tale.
Summer 2016	Vitamin A; Healthy Fertility; Recovery from the Pill; The Concussion Epidemic; EMR and the ADHD Child.
Fall 2016	Recovery from a Low-Carb Diet; Why We Need Carbs; Salt; Nutritional Yeast; Big Box Stores; Addictions.
Winter 2016	Men's Health; Protein Powders; Fueling the Modern Athlete; Restoring Male Fertility; Glyphosate in Collagen.
Spring 2017	Type 2 Diabetes; Couch Potato or Marathon Runner?; Weight Loss; Costa Rica; Moving Heavy Loads; MSG.
Summer 2017	Cholesterol Sulfate and the Heart; Vitamin D Dilemmas; Five Obstacles to Cure; The Adrenal-Heart Connection
Fall 2017	Why Do We Get Cancer; Support for Pediatric Cancer; The Tijuana Clinics; GCMaF and Raw Milk; Black Salve

All articles from all journals are posted at westonaprice.org.

Back issues are \$12 (includes shipping & handling).

HEALTHY BABY ISSUE: Traditional Remedies for Childhood Illness; Baby Food and Formula; Vitamins for Fetal Development; Wrong Advice in Baby Books; Vaccinations; Baby Food; Gut and Psychology Syndrome.

HEART DISEASE ISSUE: What Causes Heart Disease? Benefits of High Cholesterol; Oiling of America and more.

Special issues are \$12 (includes shipping & handling).

HEALTHY 4 LIFE DIETARY GUIDELINES AND RECIPE BOOK in English and Spanish.

\$10 each (includes shipping & handling) or \$6 each for 10 or more.

PRINCIPLES OF HEALTHY DIETS 28-page booklet in English, French and Spanish

\$1 each (includes shipping & handling), 60 cents each for 100 or more.

2018 SHOPPING GUIDE 96-page booklet listing 2,000 products in categories: *Best, Good, Avoid*

\$3 each (includes shipping and handling) \$2 each for 10 or more; \$1 each for 50 or more.

TRIFOLD FLYERS

The Dangers of Industrial Fats and Oils
Cod Liver Oil, Our Number One Superfood
How to Protect Yourself Against Cancer with Food
Nutrition for Mental Health
Sugar Alert!

Butter is Better
Dangers of Vegan and Vegetarian Diets
Myths & Truths About Cholesterol
Real Milk
Soy Alert!

NEW! A Message to Grandparents

Suggested donation for flyers is 25 cents each (includes shipping & handling), 15 cents each for 100 or more

Payment by check, Visa, Mastercard, Discover and American Express.

Make checks payable to The Weston A. Price Foundation.

OR ORDER ONLINE AT westonaprice.org or phone (202) 363-4394 or fax (202) 363-4396

A Campaign for *Real Milk*

RAW MILK IN CALIFORNIA'S HUMBOLDT COUNTY, PART 3

By Cindy Ashy

After almost two years of trying, the citizens of Humboldt County, California finally get their way! The local ban on raw milk sales, local ordinance 512, is back on the Humboldt County Board of Supervisors' agenda for January 23, 2018, with a strong request to repeal it. At the persistence of constituents, Virginia Bass, County Supervisor of the 4th District, has agreed to put the issue back on the agenda for discussion and possibly rescinding the raw milk ban. Ryan Sundberg, County Supervisor of the 5th District, will be the chair running the meeting. The fate of this very unpopular ordinance now rests with the five Humboldt supervisors.

CHANGE IN THE SITUATION

This is not the first time the citizens of Humboldt have banded together demanding that their supervisors lift this unpopular and outdated ban on raw milk. The same issue was formally brought before the board across two meetings in 2010 and 2011. However, the circumstances in the dairy industry have changed since then, and citizens have become even more tenacious in their resolve to have this ban permanently removed. Please see Part 1 and Part 2 (posted at realmilk.com) for more on the history of the raw milk ban in Humboldt County.

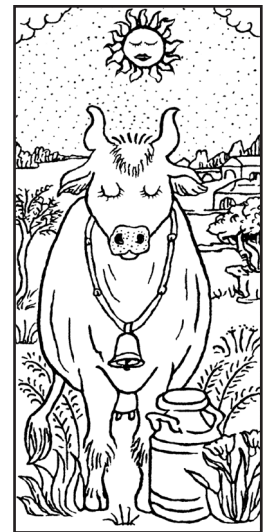
The citizens of Humboldt are really only asking to have the same freedom as the rest of California. Both the sale and production of raw milk is already legal in the entire state of California and has been for a long time, except for three rural counties: Humboldt, Trinity and Kings. Together, the population of these three counties makes up less than one percent of the total California population. So, more than 99 percent of all Californians already have the legal opportunity to purchase certified raw milk at their local food stores. They also have the right to set up a raw milk dairy, as long as they fol-

low the state regulations. Local food artisans, in most counties, can use certified raw milk to produce local raw milk products to sell in the same county. Humboldt County citizens just want these same rights.

Bill Schaser has been selected to make the formal presentation to the board on behalf of all raw milk advocates in Humboldt County. Bill is well known in the community, having been a popular high school science teacher for thirty years, most of it at Eureka High School. Bill is also a local hero to many for his substantial role in getting a GMO ban to "prohibit the propagation, cultivation, raising, or growing of genetically modified organisms in Humboldt County," which passed with 61 percent of the vote in 2014.

When asked about the raw milk ban in Humboldt, Bill had this to say: "I believe raw milk is a very healthy food but mainly I think Humboldt County is getting in the way of freedom of choice and a food movement that is growing rapidly. As organic foods have become more popular, there has been a renaissance of traditional artisan foods such as raw milk cheese and raw milk kefir. The increasing industrialization of highly processed foods, such as pasteurized milk products, has undermined our health for decades. People in Humboldt are demanding raw milk and they should have the freedom to choose raw milk just like the other thirty-nine million people who live in California."

If the raw milk ban is lifted, the first raw milk to be sold in Humboldt stores will be Mark McAfee's Organic Pastures certified raw organic milk. Mark and his team are known for their community outreach programs. They host school groups, sleepovers, bike tours and other special events on their lush green farm. It's the kind of idyllic place that raw milk advocates dream about, with truly happy cows who produce rich delicious milk! Some believe that these



A Campaign for *Real Milk* is a project of the Weston A. Price Foundation. To obtain some of our informative *Real Milk* brochures, contact the Foundation at (202) 363-4394. Check out our website, RealMilk.com for additional information and sources of *Real Milk* products.

Raw milk vending machines are operating safely in many European countries. There are more than one thousand raw milk machines in Italy alone.

same types of public outreach programs would go over big in Humboldt County. The local food scene is alive and thriving in Humboldt, and opportunities to get to know the farmer better, and see with one's own eyes where food is coming from are always much appreciated. Happy cows make happy people!

ORGANIC PASTURES DAIRY

Mark McAfee is internationally known for his exceptional diligence in adhering to the strict safety rules California has put in place for the production of raw milk intended for human consumption. In fact, Mark and his team go above and beyond these safety rules. For example, after they fill each holding tank with milk, they lock it down and send milk samples off to a third party laboratory, Food Safety Net Services (FSNS), to test for all major milk pathogens. They hold the milk until they get the results back, less than ten hours later, and only when they have the "all clear" signal from the independent testing laboratory, do they bottle the milk and get it out for distribution. This could be an ideal model for future raw milk farms in Humboldt County.

Organic Pastures is by far the biggest producer of certified raw milk in the state, producing about twenty-one thousand gallons of raw milk per week, which is over one million gallons of raw milk per year! They currently distribute their milk to at least seven hundred stores and twenty-two farmers markets in California, from the Oregon border to the Mexican border. This is important for the Humboldt supervisors and the Humboldt community at large to know because their safety record, as recorded and reported by the California Department of Public Health and the Centers For Disease Control and Prevention (CDC), is far better than that of the pasteurized milk industry as a whole. For anyone who wants to dig into the public information, the official safety record of Organic Pastures and that of smaller California certified raw milk producers speaks volumes, and should reassure anyone who is concerned about the safety of certified raw milk.

There's an ongoing joke around Humboldt. It seems there's an Organic Pastures delivery truck full of certified raw milk that heads up Highway 101 on a weekly basis. It travels the

entire length of Humboldt County on its way to Del Norte County to the north where raw milk is legal. Tantalizing many citizens, this truck goes straight past at least six natural food stores in Humboldt where customers have been literally begging for raw milk to appear on the shelves. It has become quite the pastime for citizens to joke about "hijacking" this raw milk truck because the closest source of legal certified milk is about one hundred eighty miles round trip! Some even fantasize elaborate schemes including setting up pretend highway construction and then bribing the truck driver with specialized Humboldt goodies in exchange. When people get desperate for something they truly want, and their local government insists on blocking them from making their own decisions about their own health, especially when it is legal in the rest of the state, their imaginations can begin to run a little wild!

WEARY OF THE BAN

Needless to say, people in Humboldt are growing increasingly weary of this raw milk ban and are more resolved than ever to take back their right to decide for themselves whether or not they want to drink raw milk. Their increased determination has moved more from a place of vocal public outcry to thoughtful practical planning. So, with an attitude of "enough is enough," citizens are closely tracking this new effort to ask the five current supervisors to rescind the local 512 raw milk ban.

Citizens who want the ability to easily and legally purchase certified raw milk in Humboldt, including some who believe it is absolutely necessary for their health, are asking "What will be our next step if the ban is not lifted this time around?"

The answer to this important question may come down to whom the citizens elect, through the democratic voting process, as their next "voice of the people" in the June 5, 2018 election. Two of the supervisors who will be voting on this issue, Virginia Bass and Ryan Sundberg, are up for re-election, and they both have at least one formidable opponent who is ardently supportive of removing the ban on raw milk in Humboldt.

Dani Burkhart has declared in the 4th District to run against Virginia Bass. When asked to

give her impressions on the raw milk ban, she had plenty to say including, “I’m gobsmacked! One of the reasons people want to live in Humboldt is the rural lifestyle with access to natural foods and the freedoms that come with that. . . but then we have this crazy ban on raw milk! How can we deny Humboldt’s citizens access to raw milk when almost every other Californian has such easy access to raw milk, especially since we are learning more every day what our gut bacteria mean to our health. Freedom and choice are what America was built on. Taking that away is downright unAmerican!”

When asked what she would do if she were elected supervisor and the raw milk ban were still in place, Dani vowed to “work to bring the issue back up for a vote to lift the ban.”

Steve Madrone has declared in the 5th District to run against Ryan Sundberg. When asked how he felt about the raw milk ban, he also had plenty to say including, “I support removing the ban, and I support people’s options to buy raw milk if they choose to do so. Our family used to buy and consume raw milk in the 1980s and would like to have that option again. I’m not anti-government, but I believe government should be there to help, not to hinder.”

When asked what he would do if he were elected supervisor and the raw milk ban were still in place, Steve stated, “If I was so honored to represent the 5th District, and obviously I’d be only one of five supervisors, this issue would be a no-brainer for me. I’d use whatever means I could to repeal the raw milk ban.” He then added for emphasis, “When I get involved in issues, I put my whole heart into them.”

Both Dani and Steve have said they plan to be at the meeting on January 23, 2018, and they may even give public comment, so things could get quite interesting. At the very least, Humboldt citizens will know they have two new candidates for supervisor who are willing to fight to remove

the raw milk ban, which obviously reflects the will of most of the people in Humboldt, if the current supervisors do not vote to rescind the raw milk ban on January 23, 2018.

Although many pundits still seem intent on debating partisan politics, everyday citizens seem more acutely focused on the fact that elections have meaningful consequences in their day-to-day lives, regardless of party or politics. The scales have fallen from their eyes, and they are actively supporting political candidates who truly care about solutions to problems. They want politicians who are responsive to the will of the citizens they represent, rather than to their donors or other special interests that often conflict with the needs of the people who actually elected them. Humboldt citizens, like so many others in the country, are living in a watershed moment. The fight for easy access to safe raw milk in Humboldt, without government interference, is an integral part of this movement and a deeply felt visceral reaction for many citizens.

RAW MILK FOR A BABY

Another Humboldt citizen who plans to be at the January 23, 2018 meeting, and speak publicly, is Tory Miclette, a citizen from southern Humboldt. She and her husband, Jordan, have a compelling story to share about the health

A NEW SERVICE FOR MEMBERS

Pete Kennedy is now working for the Weston A. Price Foundation (WAPF) as a consultant on policy and legal matters. Pete is a past president and original board member of the Farm-to-Consumer Legal Defense Fund (FTCLDF). There is no charge for consultations with him for anyone who is a WAPF member.

Pete will be working on policy at the state level for WAPF, including advising members on state legislation regarding raw milk, cottage foods, food freedom, poultry processing and on-farm/custom slaughter. Pete has worked on successful state legislative efforts in all these areas. He is also available for consultation on any effort to change state administrative regulations and policies. Pete will be responsible for drafting action alerts for members on legislation, policy initiatives and other matters on the state level.

Raw milk laws will be a focus of his work. A long-term goal of WAPF is legal access to raw milk in all fifty states. That day is getting closer; there is currently legal access in forty-three.

Pete will be consulting with members on legal issues pertaining to the right of consumers to have access to nutrient-dense foods and the rights of farmers and artisans to produce those foods. He will be available to work at the administrative level with members having an issue with regulators in federal, state or local government agencies.

In the past, Pete has worked on numerous matters involving FDA and USDA, state agriculture and health departments and local health departments on nutrient-dense foods. Work he has done at the federal, state and local administrative levels includes protecting farmers against threatened enforcement actions, handling food seizure, embargo and recall cases and right to farm/zoning issues on the people’s right to grow their own food.

He will also be available for consultation with WAPF members on herdshare contracts and buyer’s club agreements; he has worked with hundreds of farmers around the country on herdshare contracts.

You can reach Pete by phone at (941) 349-4984 or by email at pete@realmilk.com.

benefit of raw milk for their young son, Waylon, born in 2016. Tory had intended to breastfeed but found out she would be unable to do so. Partly on the advice of her parents, her father being a natural practitioner, and her mom having a strong knowledge of the health benefits of natural foods, and from her own extensive independent research, Tory made the informed decision to give her first-born baby raw milk, the closest substitute she could find for human breast milk.

Sadly, because of the ban on certified raw milk, Tory and her family struggled to find safe raw milk for their newborn baby. As a result, Tory ended up feeding Waylon pasteurized cow milk formula for the first four months of his life. Unfortunately, Waylon did not react well to pasteurized milk formula, even though Tory tried several types, including the most highly recommended brands on the market. No matter which pasteurized formula she tried, baby Waylon seemed to constantly have excess mucus in his chest and he would get really bad facial

rashes as a result of coughing this up.

Around the time baby Waylon was about four months old, a fortuitous event occurred that changed everything. On an extended visit with her mom in southern California, Tory was able to easily and legally purchase Organic Pastures raw milk to give to her baby. Baby Waylon, who had been constantly sick, thrived on this healthy wholesome raw milk and the excess mucus and rashes went away! These days, the family tries to bring home enough certified raw milk after every twelve-hour round trip they take to southern California, but it's never enough to last until the next visit, and sometimes it goes bad before Waylon can drink it all. Waylon is almost two now and every time they try to reintroduce pasteurized milk to him, he seems to get a cough.

Tori says, "Life would be so much easier if the raw milk ban were lifted!" She also says that if she and her husband have another baby, she wants to give that baby certified raw milk from the first day of life.

LOCAL STORES AND FARMERS MARKETS

At the Jan. 23, 2018 meeting, there will also be a strong show of support from several, if not all, of the local grocers in Humboldt. They are in a good position to know the community's heart on this issue, and their degree of passion about it, because their customers have been demanding the sale of raw milk in their stores for years.

The North Coast Co-op Board of Directors, representing popular

OUR GOAL: RAW MILK DISTRIBUTION LEGAL IN ALL FIFTY STATES

A long-term goal of the Weston A. Price Foundation has been the establishment of legal access to raw milk in all 50 states. When the WAPF project, A Campaign for Real Milk, started in 1999, the sale or distribution of raw milk was legal in 27 states; today that number stands at 43. The only states that still prohibit any form of raw milk sales or distribution are Delaware, Hawaii, Iowa, Louisiana, Nevada, New Jersey and Rhode Island. Recognizing that the day of legal access to raw milk is getting closer, WAPF has embarked on a drive to help legalize raw milk sales and distribution in the remaining seven states.

A Campaign for Real Milk will be devoting more resources to support legalization efforts; this could be through paying a lobbyist, paying for experts to testify at hearings, paying for expenses of WAPF members working on legislation, consulting on legislation, networking with other groups or organizations or helping with the drafting of raw milk bills. Legal raw milk access can be established through regulation, court decision, legislation or policy. A Campaign for Real Milk will focus on legalization primarily through legislative and policy work.

The main goal of A Campaign for Real Milk will be to legalize raw milk sales or distribution in the remaining seven states but the campaign will also support efforts to expand raw milk access in the other 43 states; in some of those states, access is limited at this time. The campaign also supports work to legalize access to other raw dairy products such as cream, butter, yogurt, kefir and cheese. These products, other than raw cheese aged 60 days, are legally available only in a minority of states. The drive for expanded raw dairy access could include efforts to legalize the commercial sale of raw butter and unaged raw cheese. Most states only allow the sale of raw milk and raw milk products directly from the producer to the consumer at this time.

A Campaign for Real Milk has set a goal of legalizing raw milk access in all 50 states by 2020. WAPF, long the leading raw milk advocacy group in the country, is excited to step up efforts to make this happen.

2000
Raw milk available in 27 states

2017
Raw milk available in 43 states
(thanks to the efforts of A Campaign for Real Milk)

Our Goal
Raw milk available in all 50 states by 2020!
Help us make raw milk sales legal in the remaining 7 states:

Delaware Hawaii Iowa Louisiana Nevada New Jersey Rhode Island

A Campaign for Real Milk
PASTURE-FED UNPROCESSED FULL-FAT
NATURE'S PERFECT FOOD

local stores in both Arcata and Eureka, and working closely with many local food producers, sent a letter to the board on December 16, 2016, specifically asking them to put the raw milk issue back on the agenda. It read in part, "On behalf of our more than 16,000 members and 32,000 customers, we urge you to rescind Title V, Division 1, Chapter 2, Section 512 of the Humboldt County Code and lift the ban on the sale and production of certified raw milk and certified raw milk products in Humboldt County." They later requested, "... we ask that you place this issue on the board's agenda the last week in January, 2018, or as soon after that time frame as possible."

Given there are only about one hundred forty thousand people residing in the entire county, the North Coast Co-op represents a significant percentage of the total population. The board took this action after discussing it at several board meetings and sending out a survey to their members in their May, 2016 newsletter. The results of their member survey were strongly in favor of wanting certified raw milk in Humboldt and right on par with frequent comments made by customers in both of their stores. At least one person from the North Coast Co-op will make public comment at the January 23, 2018 meeting.

Humboldt is famous for its farmers markets, with many out-of-town visitors saying they're the best farmers markets they've ever been to. According to staff and a member of the Northcoast Growers Association, vendors at the local Humboldt farmers markets get asked "all the time" whether they have raw milk to sell or if they know someone else who sells it. Often, these customers are from out of town, or they are people who have moved into the area recently, and are surprised to learn they can't legally buy raw milk in such a beautiful rural county with so much dedication to local food and farmers markets.

Rick Littlefield, the owner of Eureka Natural Foods (ENF), another Humboldt favorite since 1944, appointed Juan Gagne as the "point person" for the raw milk issue at ENF. Rick will be making a public comment in strong support of lifting the local raw milk ban on behalf of all of his customers at both their Eureka store and

their McKinleyville store. He is also personally committed to people having the freedom to choose their own foods. Posted on the windows to his store, in large letters, is Hippocrates' famous quote, "Let food be thy medicine and medicine be thy food."

Juan Gagne is a veteran in the natural food scene in Humboldt, and in an interview, recounted some of the colorful local history. Juan grew up in southern California where raw milk was readily available. He remembers being really surprised to learn it was illegal in Humboldt when he first visited a friend in Humboldt more than forty years ago. He then revealed it was "no big deal" back then because his friend's neighbor owned a cow and the son would deliver warm milk straight from the cow every morning. At this point in the interview, Juan paused to joke, "Shhh. . . don't tell anyone!" which of course is another common joke in Humboldt due to the various circulating stories of Humboldt County's crackdown on "black market" raw milk. But since this was forty years ago, Juan joked it was safe enough to let the secret out. He added, "That's just the way everyone had to do it back then."

Yes, you read that right, Humboldt County, one of the top contenders for the Cannabis Capital of the World, forces its citizens to consider buying "black market" raw milk!

Long story short, Juan ended up staying in Humboldt and worked at the local Food Co-op in the early days. He then landed at Chautauqua Natural Foods in Garberville where Peg Anderson, another beloved local legend, took him under her wing and taught him everything she knew about local and organic produce. Eventually, Juan became the Perishables Manager at ENF where he's been for many years. Juan describes ENF's philosophy in the following way, "Here at Eureka Natural Foods, we believe people should be able to make informed choices about the foods they eat and feed to their families. Any food can be dangerous if improperly handled. Also, some of the most dangerous foods, such as NutraSweet (aspartame) and high fructose corn syrup, are those that are most widely available! A lot of these are not actually foods at all but rather imitation food-like substances!"

Yes, you read that right, Humboldt County, one of the top contenders for the Cannabis Capital of the World, forces their citizens to consider buying "black market" raw milk!

Juan then volunteered to describe a typical conversation he and other ENF employees often have with new people who move to Humboldt County from other parts of California where raw milk is legal:

Customer: "Are you out of raw milk? I can't find it anywhere. Isn't this a natural food store?"

ENF employee: "I'm sorry, raw milk is illegal here in Humboldt County. We aren't allowed to sell it here."

Customer: "You've got to be kidding me! Raw milk is the only milk I can drink without getting sick! I just moved here. What am I supposed to do?"

ENF employee: "Some people buy it online but the shipping costs more than the milk."

Customer: "Isn't there a local farmer I can buy raw milk from?"

ENF employee: "Technically, that's illegal in Humboldt, too. However, some people buy their own cow or goat."

The customer, stunned at this news, walks away grumbling and shaking his/her head. Some even threaten to leave Humboldt. Hopefully, the January 23, 2018 meeting will change this situation!

PROPER PROCEEDINGS

Many of the people who attended the meetings where the raw milk ban was discussed in 2010 and 2011 felt that the meetings were conducted in a lopsided way that strongly favored the vocal minority who wanted to keep the raw milk ban in place. The meetings were also said to be wrought with procedural problems that very specifically disfavored the majority that wanted the raw milk ban repealed. Also of great concern is the fact that the written materials that were submitted into the public record by raw milk advocates have been somehow "lost" from the per-

manent record, while the records of those who opposed lifting the ban remain.

The citizens bringing this issue back to the board January 23, 2018, are specifically asking the chair and other supervisors to ensure that proper rules of order are followed this time around, and that everyone in attendance be treated with equal respect. Citizens are also asking to be given equal time for their presentations as county employees, since they are the ones bringing the issue to the board, and the people whom the supervisors actually represent. They also want the opportunity to respond this time around to the county health department, and any other county officials, offering their "advice" on the raw milk issue.

It may also be recommended that extra time be allotted for public comment since so many citizens feel deeply about this issue.

Stay tuned for the result! ☺☺

REFERENCES

1. Fallon SA. A campaign for real milk: full-fat, pasture-fed, unprocessed. Weston A. Price Foundation, PowerPoint slides 59-60, September 2011. <http://bit.ly/2qY3OEU>.



Participants of the 2017 WAPF tour of Switzerland from left to right: Todd Butler (IN), Bob Mathews (TN), Graeme and Jan Appleby (New Zealand), Judith Mudrak (NJ), Peggy Brown (IA), Betty Dismukes (MD), Toril Jelter (CA), Sherry Woodward (IL), Chui Chen (MI), Kris Robertson (WY), Trudy Arnold (ID), John McCormack (Australia). (Not pictured: Jeff Salzer [NV].)

RAW MILK UPDATES By Pete Kennedy, Esq.

FDA SUIT TO SEIZE CAMEL MILK PRODUCTS

On October 19, 2017, the United States Food and Drug Administration (FDA) filed a complaint with a federal district court in Kansas to seize and condemn around \$70,000 worth of raw camel milk, pasteurized camel milk, raw camel milk colostrum, and raw camel milk kefir.¹ The camel milk products are currently being held at a frozen food warehouse, My Magic Kitchen, located in Kansas City. The Kansas Department of Agriculture has placed all the products under embargo, prohibiting their movement from the warehouse. All labels on the frozen products FDA wants to seize bear the name Desert Farms; the Santa Monica, California-based company is the largest raw milk distributor in the U.S. According to the complaint, Hump-Back Dairys of Miller, Missouri produced nearly all of the product being held at the warehouse; the dairy is, by far, the largest camel milk producer in the country.

There has been a thirty-year ban on raw dairy products (other than aged raw cheese) in interstate commerce; FDA interprets the ban to extend to raw camel milk products. In December 2016, Samuel Hostetler, the owner of Hump-Back Dairys, received a warning letter from FDA.² The letter to Hostetler warned that he was violating the interstate ban by shipping both raw camel milk and raw camel milk products in interstate commerce; Hostetler responded to the warning letter by informing the agency that he would be complying with the federal regulation establishing the ban.

Walid Abdul-Wahab, the president of Desert Farms, also received a warning letter from FDA in September 2016 but the letter did not mention the interstate raw dairy ban; instead the letter accused Desert Farms of violating the law by shipping “new drugs” that were not approved by FDA in interstate commerce.³ The letter noted that Desert Farms was making health claims on its website and Facebook page about how camel milk was being successfully used to treat various diseases, especially autism. The letter warned that the camel milk products were drugs because “they are intended for use in the care, mitigation and treatment of disease.” As such they were “new drugs” that needed approval from FDA before they could be marketed. The FDA approval for new drug processing can cost in the hundreds of millions of dollars.

The FDA suit filed for the seizure and destruction of the camel milk products alleges that Desert Farms’ social media pages (Facebook, Twitter, YouTube and Instagram) linked to the company’s website contain claims that “demonstrate that the camel milk products are intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease, including autism, diabetes, multiple sclerosis, Crohn’s disease, viral infections such as hepatitis, the genetic disorder Machado-Joseph, depression, gastrointestinal disease, heart problems, attention deficit disorder, autoimmune diseases, Hashimoto’s disease and cancer.”⁴

What neither the warning letters nor FDA’s complaint for seizure allege is that the camel milk products are adulterated or a threat to human health. As far as is known, there has never been a case of foodborne illness in this country attributed to consumption of raw camel milk. Destruction of the camel milk products at the warehouse would be an absolute waste of healthy food.

It is estimated there are over ten thousand families with autistic children in the U.S. that purchase raw camel milk; many of these families pay eighteen dollars or more per pint for the product. There is a reason for that; parents of autistic children have found that raw camel milk and camel milk products can alleviate the symptoms of the condition known as autism spectrum disorder. The science backs them up.⁵ Pasteurized camel milk can be effective in alleviating the symptoms of autism as well, though not to the same degree.

Earlier this year, the FDA released an article on its Consumer Updates page titled, “Autism: Beware of Potentially Dangerous Therapies and Products.”⁶ In the article FDA warns about taking camel milk as a treatment for autism and autism-related symptoms. When the FDA warns about taking a product for a disease, it is often because the product is a threat to the profits of the pharmaceutical industry.

The FDA is seeking a court order to destroy over forty-three hundred eight- and sixteen-ounce bottles of camel milk products; products that can help autistic children cope with their condition. The judge hearing the case has the discretion to release the product to Desert Farms.⁷ If Walid Abdul-Wahab shows the court that any health claims are no longer on the Desert Farms website and social media and that he is willing to pasteurize the camel milk (with the interstate ban, he would have no choice if he wants the product released) and label the milk containers accordingly, the judge could release the product to Desert Farms. Healthy food like this should not wind up in a landfill.

1. United States of America v. Camel milk products, et al, Kansas Civil Action No. 17-2609 (2017). Access docket files via Pacer.gov for Case #: 2:17-cv-02609-CM-KGS. Retrieved 11/18/2017 from Justia.com at <https://dockets.justia.com/docket/kansas/ksdce/2:2017cv02609/118800>
2. FDA warning letter to Samuel P. Hostetler (DBA) Hump-Back Dairys, dated 12/19/16. Retrieved 11/18/2017 at <https://www.fda.gov/ICECI/EnforcementActions/WarningLetters/2016/ucm534108.htm>
3. FDA warning letter to Desert Farms, dated 9/15/16. Retrieved 11/19/2017 at <https://www.fda.gov/iceci/enforcementactions/warningletters/2016/ucm524663.htm>
4. United States of America v. Camel milk products, et al
5. "Casualties of the Raw Milk Ban", January 17, 2017, Farm-to-Consumer Legal Defense Fund website. Retrieved 11/18/2017 at <https://www.farmtoconsumer.org/blog/2017/01/17/casualties-raw-milk-ban/>
6. FDA, "Autism: Beware of Potentially Dangerous Therapies and Products", www.fda.gov updated April 12, 2017; originally published April 25, 2014 (see <https://www.actcommunity.ca/resource/3565/>). Retrieved 11/18/2017 at <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm394757.htm>
7. United States Code, 21 USC 334(d). Accessible at <https://www.law.cornell.edu/uscode/text/21/334>.

PENNSYLVANIA: FDA ANTIBIOTIC TEST REQUIREMENT THREATENS TO CUT RAW MILK SUPPLY

Controversial antibiotic test requirements imposed by the FDA will be going into effect next month in Pennsylvania. According to the Pennsylvania Department of Agriculture (PDA), Pennsylvania will be the last state to implement the testing requirements; FDA initially issued the regulations in 2011.¹ The requirements will especially impact raw milk farmers who sell part of their production to dairy cooperatives for pasteurization as well as selling raw milk direct to the consumer or through retail stores. The main reason that the FDA testing mandate has received much more attention in Pennsylvania than in any other state is that there are more producers in Pennsylvania than in any other state whose raw milk goes for both pasteurization and for direct consumption. Because of laws in neighboring states that either restrict or prohibit raw milk sales or distribution, consumers in both the northeastern and mid-Atlantic regions rely on Pennsylvania raw milk producers for their sustenance.

The antibiotic testing requirements stipulate that farmers producing either raw milk for pasteurization or raw milk to be manufactured into other dairy products (such as raw or pasteurized cheese) must test every batch of raw milk for antibiotic residue even if the producer's dairy operation is certified organic. Producers who only produce raw milk for human consumption are not subject to the FDA testing requirement. Producers subject to the testing mandate will either have to do their own testing on equipment that could cost thousands of dollars to purchase, pay thousands each year for testing by a state-approved lab or, in the case of producers selling to a co-op, wait to get test results (milk haulers transporting milk for co-ops collect samples for testing of each batch of raw milk they pick up from a farm belonging to the co-op). Producers cannot commingle any milk from a subsequent batch until they get test results back from the co-op; further complicating matters is the fact that co-ops typically do not report test results to member farmers at all, much less on a timely basis. PDA has gotten reports of producers working with co-ops to create a process for timely reporting of test results but it remains to be seen how these efforts pan out.

Dairy Farmers of America, a co-op with a history of strong opposition to legalizing raw milk sales for human consumption, controls a substantial percentage of raw milk produced for pasteurization in Pennsylvania, possibly over one-half of the total. Trickle Springs Creamery, a well-known Pennsylvania co-op, has already notified its members that one hundred percent of their production must go to the co-op; members will not be able to retain any raw milk for retail sales or for manufacturing into any other dairy product. If a farmer selling raw milk to a co-op for pasteurization is found to violate the antibiotic testing requirements, FDA can not only stop the farmer's shipments to the co-op, it can shut down the co-op from making any shipments in interstate commerce.

To its credit, PDA (with FDA's approval) has established a variance process, whereby those dairies to which it grants a variance will be exempt from the antibiotic testing requirements.² Forty farmers have applied for the variance so far. Those eligible for the variance include farmers who pasteurize and bottle all the raw milk they produce and those manufacturing other dairy products only from raw milk produced on their farm. Producers selling any of their raw milk production to a co-op are not eligible for a variance per order of FDA.

A PDA official estimated that as many as one-half of the sixty-eight Pennsylvania dairies permitted to produce and sell raw milk for human consumption are Grade A dairies that sell some of their milk production to a co-op. If these dairies aren't able to make a workable arrangement with their co-ops on reporting test results, the cost of antibiotic testing could drive many to drop their permits and get out of the raw milk business even though antibiotic residues in the milk was never a problem for any of them to begin with. The FDA testing requirement, in their cases, has nothing to do with protecting the public health.

1. Public Health Service/FDA, Appendix N Drug Residue Testing and Farm Surveillance, "Grade A" Pasteurized Milk Ordinance 2015 Revision, Note: the PMO is a document governing the production, distribution and transportation of raw milk intended for pasteurization; Pennsylvania and nearly all other states have adopted the PMO and the other states must have standards at least as strict.
2. PDA Commissioner Russell Redding, Letter to Pennsylvania Milk Permitholders, 4 October 2017.

WASHINGTON: PRIDE AND JOY CREAMERY

For the past decade, Allen and Cheryl Voortman of Pride and Joy Creamery in Granger, Washington, have produced high-quality raw milk that has benefited the health of thousands of their customers. At the beginning of 2017, Pride and Joy Creamery was one of the largest raw milk dairies in Washington, distributing their nutrient-dense product throughout the state. Long certified as a 100% grass-fed organic dairy, Pride and Joy received the highest rating given by the nonprofit organic industry watchdog Cornucopia Institute to organic milk producers—a rating given only to ten other dairies in the country.

Sadly, today, Pride and Joy Creamery is out of the retail raw milk business and only produces raw milk for pasteurization. The Voortmans no longer have the herd that produced raw milk for direct consumption. Two shutdowns of the dairy engineered by the Washington State Department of Agriculture (WSDA) led the Voortmans to make the decision to end their raw milk operation.

In February 2017, WSDA and the Washington Department of Public Health accused the dairy's raw milk of making two people ill with salmonella poisoning. It is not known whether public health officials tried to find any other foods the two sick individuals might have consumed in common once it was discovered that each drank the dairy's raw milk. WSDA sent samples of the dairy's raw milk to the state lab; while the samples were negative for salmonella, two samples were positive for shiga-toxin producing e-coli (STEC), a result the department used to pressure the Voortmans into conducting a voluntary recall of the dairy's raw milk which ultimately resulted in the dairy being shut down for over two months. WSDA produced no evidence that the STEC it found in the milk samples was capable of making anyone sick.

In September, milk samples taken by WSDA tested positive for salmonella, eventually leading the department to suspend the dairy's license to produce raw milk. When samples WSDA took in October were also positive for salmonella, the Voortmans shut down their raw milk operation for good rather than incur the tremendous expense it would have taken to get WSDA's approval to start up again. Samples from the same batch of milk that the Voortmans sent to an accredited laboratory in Idaho were all negative for salmonella. During this time, there were no reports of illness caused by the consumption of raw milk. A November post on the Pride and Joy Facebook page announcing the end of the dairy's retail raw milk business noted, "the bureaucracy, financial burden and uncertainty of this business is now too much for us."

There is something wrong with the Washington regulatory system when one of the state's most popular dairies is forced out of business even though its raw milk has arguably made no one sick. Pride and Joy is not the only Washington raw milk dairy to go out of business in recent months; since around the middle of the year, three other dairies have turned in their permits. The four farms account for about ten percent of the total number of licensed Washington raw milk dairies. WSDA's actions helped shatter in a matter of months a business that a hard-working, conscientious family had taken years to build.

ONTARIO, CANADA: SCHMIDT RELEASED FROM JAIL

On November 22, Durham Ontario dairy farmer Michael Schmidt was granted bail and released from serving a sixty-day jail sentence pending the farmer's appeal of a conviction for obstructing a peace officer; Schmidt posted a twenty-five hundred dollar bond to secure his release. Schmidt had been convicted on October 19 for the offense; subsequently, Justice Ronald Minard of the Ontario Court of Justice sentenced Schmidt to sixty days in jail with time to be served over fifteen consecutive weekends. The farmer had served eight days of his sentence at the time bail was granted. Four others—Enos Martin, Robert Pinnell, George Bothwell and John Schnurr—were charged with a similar offense; Schnurr was found not guilty and charges were dropped against Martin, Pinnell and Bothwell.

The charge against Schmidt stems from an October 2, 2015, raid of his farm. Schmidt and seventy supporters were at the farm when government officials possessing a warrant were blocked from leaving the premises in a van containing equipment and dairy products. The officials left only after leaving the seized materials at the farm; multiple provincial and municipal government agencies participated in the raid.

The government obtained a warrant to search the farm on the grounds that it needed to investigate Schmidt to determine whether the farmer was violating the Ontario Milk Act. The Act prohibits the sale or distribution of raw milk for human consumption; many believe this provision only applies to raw milk sold or distributed to the general public. Schmidt only distributes milk to individuals who own shares in his farm; he distributes no milk to anyone who isn't a shareholder.

Schmidt is appealing the conviction for the obstruction of a peace officer as well as a court ruling holding that the twenty-three months the case went on did not violate the speedy trial provision contained in the Canadian Charter

of Rights and Freedoms. The Canadian Supreme Court has interpreted this provision to mean that, if it takes more than eighteen months between the time charges are brought and the end of trial in provincial court cases, there is an automatic presumption the delay is unreasonable. In Schmidt's case, the Justice agreed with the Crown's argument that the presumption shouldn't apply because there were exceptional circumstances in the case.¹

A petition on Change.org to free Schmidt that drew over seventy-five hundred signatures helped draw greater attention to the draconian sentence given the farmer who was only trying to keep the government from confiscating the private property of his shareholders—property the government arguably didn't have jurisdiction to take. The petition noted that when tainted meat from Maple Leaf Foods was found to have killed twenty-two people and sickened many more in 2008, the Crown never brought charges against anyone with the company. Schmidt has produced raw milk for over thirty years; no one has ever accused him of making anyone sick.²

For the last twenty-three years the government has unsuccessfully tried to shut down Schmidt's efforts to provide healthy dairy products to educated and informed consumers; its endless harassment has cost taxpayers millions of dollars and made a North American icon out of a small farmer in the process. Schmidt might not have been able to change the law but he has had a huge impact, substantially increasing the demand for and supply of raw milk since the time the government started persecuting him. There are significantly more dairy farmers in Canada today distributing raw milk through herdshare and farm-share programs; Schmidt's decades-long campaign of non-violent resistance to unjust laws has emboldened them. The situation in Canada with the prohibition on raw milk sales in all provinces is becoming more similar to the situation in the U.S. with the interstate raw milk ban; greater numbers of otherwise law-abiding citizens are violating these laws with regularity. It's time for provincial and municipal governments in Canada to acknowledge reality, leave Schmidt alone, and stop interpreting provincial raw milk laws to cover distribution to farm and dairy animal owners.

Michael Schmidt and Eliza Vander Hoot are trying to raise funds to cover the cost of his court battle. Those supporting freedom of choice are encouraged to back Schmidt's fight by donating at GoFundMe.com/foodrights. The farmer is a little more than half way to reaching his goal of raising one hundred thousand dollars.

1. Don Crosby, "Raw Milk Advocate Schmidt Found Guilty of Obstruction," *The Owen Sound Sun Times*, 20 October 2017. Accessed 11/30/2017 at <http://www.owensoundsuntimes.com/2017/10/20/raw-milk-advocate-schmidt-found-guilty-of-obstruction>.
2. Laura Redman, "FREE Ontario FARMER Michael Schmidt – CHANGE CANADA's ARCHAIC RAW MILK LAW", Change.org, November 2017. Accessed 11/30/2017 at <http://www.change.org/p/kathleen-wynne-free-ontario-farmer-michael-schmidt-change-canada-s-archaic-raw-milk-law>.

2017 CHAPTER LEADER MEETING



Addressing the 2017 chapter leader meeting are Pete Kennedy, who spoke on the campaign to legalize raw milk in the last seven states, and Judith McGeary who summarized WAPF work on the farm bill and animal identification.

Healthy Baby Gallery



When baby Ava was born to WAPF member Ana Smith, the doctor marveled that she was one of the most alert babies he had ever seen. Ava's mom followed the WAPF diet throughout her pregnancy and nursed Ava for fourteen months. Ava started sleeping through the night when she was four months old; now at twenty-one months, she is still a wonderful sleeper. Her first solids were egg yolks and avocado. After she stopped nursing, Ava switched to raw milk and still drinks it daily. She loves eggs, raw cheese, peas with butter, liverwurst, fresh fruit, roasted vegetables and meat with avocado. She has a large round head with all her baby teeth and plenty of room for her adult teeth to come in without crowding. She has hundreds of words already and is a beautiful example of a baby fed the Wise Traditions diet.

Healthy, breastfed four-month-old Axel (pictured at two days old) had a healthy vaginal homebirth in Sicily. Just over seven pounds (3.2 kg) at birth, Axel now weighs a sturdy twenty pounds (9 kg) and is much bigger than his peers. Axel's parents, Gautier and Serena, are very proud of their big, healthy boy, growing up "the way babies used to grow." They have known about Wise Traditions dietary principles for some time and followed the WAPF recommendations for raising healthy children both preconceptionally and during pregnancy. Axel's father suffered from many health problems in his own childhood (which he attributes to his Cesarean birth, bottle feeding and overvaccination), and he is committed to making sure his son grows up healthy. Axel's parents are grateful for WAPF's efforts to spread the message of Weston Price and promote true knowledge of food, culture and nutrition.



Please send your healthy baby photos and text to journal@westonaprice.org.

Local Chapters

All Areas: Nourishing Our Children, Sandrine Perez info@nourishingourchildren.org, nourishingourchildren.org

- AK Anchorage/Eagle River: Anthony & Kathleen Rumsey (907) 297-8293, anchoragewapf@gmail.com
Copper River Basin: Janelle Eklund (907) 822-3282, jeklund@cvinternet.net & Marlene Wenger (907) 822-5802, marwen@cvinternet.net
Mat-Su: Kelly Caraway & Karen Ross (907) 841-7695, connect@functionalfermentedfood.org
- AL Auburn: Susan Ledbetter (334) 821-8063, gnomons@bellsouth.net
Mobile: Jerian Pahs (910) 777-3954, djpahs@hotmail.com
Montgomery: Sarah Teal (205) 305-0985, TEALSE@hotmail.com, facebook.com/groups/1658698024458705/
Tuskegee/Union Springs: Debbie Vail (334) 750-3276, Debbie@created4youfoods.com
- AZ Flagstaff/Sedona: Cindy Krznarich (928) 225-1698, wapfsedona@gmail.com, wapfflagstaff@gmail.com, <http://chapters.westonaprice.org/flagstaffaz/>
Metro Phoenix: Chantelle Meade (480) 231-8237 (texts preferred), chantelles@cox.net, wapfsevalleyaz@yahooogroups.com
Prescott/Chino Valley: Bonnie Kuhlman (480) 529-7581, neel.bonnie@gmail.com
- AR Fayetteville: Cat & John Swenson (479) 200-1908, cat@greatfermentations.net, facebook.com/groups/963786473684124/
Little Rock: Brandy & Jamie McAllister (501) 681-5747, brandybmcallister@gmail.com
Texarkana - see TX: Ark-La-Tex
- CA Antelope Valley: Vanessa Ryan (707) 218-5180, vanessa.ryan1@yahoo.com
Auburn: Angela Gonzalez (925) 528-9069, SimplyNourishingFood@gmail.com
Chico/Butte Valley: Portia Ceruti (530) 894-6235 & Greg Gordon (530) 518-0102, chicowapf@gmail.com
Claremont, Pomona, Upland: Elizabeth Voth (510) 697-7542, elizabeth2ecology@gmail.com
Concord/Walnut Creek/Pleasant Hill: Myra Nissen (925) 289-9388, myra@myranissen.com, groups.yahoo.com/group/WAPFConcord/, chapters.westonaprice.org/concordca/, facebook.com/groups/wapfconcord/
Davis: see Yolo County
Fair Oaks/Orangevale: Mike Kersten (916) 962-9975, kerstencastle@att.net
Grass Valley/Nevada City: Shan Kendall (530) 478-5628, shan.kendall@gmail.com & Cathe' Fish (530) 432-5109, sunshine.works@gmail.com, meetup.com/GoldCountryChapterWAPF
Hemet/Winchester: Wendy McPhail, CNC, FDN, NBCCT, (951) 764-8685, wendyJM1@yahoo.com
Laguna Niguel: Mona Lenihan-Costanzo (949) 637-4639, mona@vibrantwellnessnow.com
Los Angeles/Hollywood: Liz Voosen (323) 488-3438, lizvoosen@gmail.com, chapters.westonaprice.org/hollywoodla/, health.groups.yahoo.com/group/WAPF_LosAngeles_Hollywood/
Los Angeles-West & Santa Monica: Martina Gallagher (310) 418-9689, holisticmastery@mail.com & Suzanne Gross (323) 383-7223, gross.suzanne@gmail.com
Madera/Fresno: Cathy Barrow (559) 355-1665, sisterchicks.cathy@gmail.com
Marin County: Karen Hamilton-Roth (415) 380-8917, marinwapf@gmail.com, chapters.westonaprice.org/marincountycal/, facebook.com/groups/WestonAPriceMarinChapter/
Mendocino County: Anna Rathbun (707) 937-0476, mendo.wapf@yahoo.com
Morongo Valley: Kim Goodwin (442) 228-0004
Napa: Amanda Safford (707) 256-9937, wapfnapa@yahoo.com
Pasadena: Karen Voelkening-Behegan (626) 836-5053, karen@realfoodtherapy.com & Joy de los Santos (626) 579-5674, joydls88@sbcglobal.net, westonapricepasadena.wordpress.com, facebook.com/groups/westonapricepasadena/
Placer County: Mandy Rivera & Kathryn MacRoberts (916) 708-1877, mandy.rivera@gmail.com, kathryn@hrdndog.com
Plumas County: Daniel Salvatore (530) 375-0074, dansal7043@gmail.com
Redondo Beach/South Bay: Angela Karlan (310) 540-6542, akarlan@yahoo.com & Shanna Cartmell (310) 519-8900, shanna@cartmellchiropractic.com



Over seventy WAPF chapter leaders,
including two from the Netherlands, gathered for the annual chapter leader meeting.
Great chapter leader photo courtesy of Sandrine Perez.

Local Chapters

- Riverside/Corona: Suzette Chavers (951) 682-9680, schavers@gmail.com
 Sacramento: Eve Mitchell (916) 899-0054, eve@aproventtheory.com, chapters.westonaprice.org/sacramentoca, facebook.com/groups/253923421376927/
 San Diego-Downtown: Olivia Costanzo & Stanton Hom (858) 876-4660, livinbalancenutrition@gmail.com
 San Diego/East County: Nancy Teas-Crain (619) 733-5016, ntcrain@cox.net & Brenda Reynolds (619) 469-7470, Brenda.reynolds33@yahoo.com, chapters.westonaprice.org/sandiegocostca/
 San Diego/Encinitas: Kim Schuette, CN & Toni Fairman (858) 259-6000, kim@biodynamicwellness.com, wapfsandiego@gmail.com, facebook.com/WAPFSanDiego, chapters.westonaprice.org/sandiegoca
 San Diego/Scripps Ranch, Poway & Ramona: Holly Chisholm & Barb Bezold (858) 668-6502, hschisholm@yahoo.com & Barbbezold@gmail.com
 San Francisco: Doug Miller-Fleig (415) 568-0027, dougathebeach@yahoo.com, chapters.westonaprice.org/sanfranciscoca/, wapf-sf@yahoogroups.com
 San Mateo County: Lisa Smith (408) 234-1182, traditionalfoods@yahoo.groups.com & Shelley H. Lane, OMD, LAc, NTP, (650) 332-4732, contact@purefoodsdoctor.com, facebook.com/WAPFSanMateoChapter/
 San Jose/South Bay, Santa Clara County: Pamela Lau (408) 412-0838 & Elaine Lou (650) 383-7588, WAPF.santaclaracounty@gmail.com
 Santa Monica: see Los Angeles
 Siskiyou County: Diane McGonigal (530) 467-5356, mcgfm@sistel.net, & Geri Quintero (530) 468-5727, geriq07@gmail.com
 Solano County: Kirsty Rayburn (707) 249-5259, wapfisolano@gmail.com
 Sonoma County: Lisa Monroe (707) 373-1819, lisamonroe99@gmail.com, chapters.westonaprice.org/sonomacountycal/, facebook.com/groups/westonapricesonomacountychapter/
 Stockton & San Joaquin County: Martha E Zetter, Holistic RN, CRM (209) 478-7630, nutritionideas4you@sbcglobal.net
 Topanga: Hilary Boynton (978) 580-1616, hilaryhboynton@gmail.com
 Ventura County: Joanie Blaxter (831) 246-0162, WAPFVentura@gmail.com
 Yolo County: Trish Trombly (530) 753-2237, tromblynutrition@gmail.com, groups.yahoo.com/group/WAPFYolo
- CO Aurora: LaShay Canady (303) 886-0673, herbalist@thebossgrp.net, chapters.westonaprice.org/auroraco/
 Black Forest: Emmy McAllister (719) 494-1546, healthsolutionsnow@earthlink.net
 Boulder: Steven Bussinger (303) 710-0730, sbussi@live.com & chapters.westonaprice.org/boulderco, facebook.com/groups/Boulder.WAPF/
 Colorado Springs, North: Carol Aleson (719) 282-1226 & Andrew Gardner (719) 209-8790, springswapf@yahoo.com, facebook.com/groups/wapfcos
 Colorado Springs, South: Maria Atwood (719) 573-2053, traditionalcook@hushmail.com, traditionalcook.com
 Denver: Dianne Koehler (303) 423-5736, Dianne.Koehler@gmail.com & Eric Eslich (303) 619-3703, wapfdenver@gmail.com, nourishingconnections.org, facebook.com/groups/1404488696489539/
 Dillon/Silverthorne: April Kemp (970) 389-7489, april.kemp@protonmail.com
 Fort Collins: Nancy Eason (970) 493-7588, wapffc@gmail.com, wapffc.org & Peggy Gates (970) 691-8278, 10peggy17@gmail.com, facebook.com/Fort-Collins-Chapter-of-Weston-A-Price-Foundation-113003052044731/
 Grand Junction: Dawn Donalson (970) 210-3980, ddonalson@hotmail.com, facebook.com/groups/1404488696489539/
 Littleton: Leti Fanning (303) 888-0321, leti@bodyfuel4health.com, bodyfuel4health.com/events
 Pueblo: Kim Wiley (719) 947-0982, farmerswiley@gmail.com
 Western Slope: Evette Lee (970) 256-0617, evenmike@acsol.net
- CT Fairfield County: John J. Kriz (203) 253-5934, chapters.westonaprice.org/fairfieldcountyc/
- Litchfield County: Helen Baldwin (860) 435-9839, helendaybaldwin@gmail.com, chapters.westonaprice.org/litchfieldcountyc/
- Old Saybrook: Brigitta Jansen (917) 975-1784, brigitta.jansen@gmail.com
- Tolland County: Anna & Jared Simpson (860) 305-5888, wellbeyondnutrition@gmail.com
- DC Washington: Stephen Pleasant, MSW, (202) 365-6135, info@pleasantwellness.com & Hilda Labrada Gore (202) 234-8186, wapfdc@gmail.com
- DE Laurel: Sarah Peterson (302) 875-7042, sarahp247@aol.com
 Rehoboth Beach: Sara Read (302) 227-2850, sread2850@aol.com
 Northern Delaware: Bob Kleszics (302) 234-2707, bobkleszics@gmail.com
- FL Altamonte Springs: Steve Moreau kmt205@gmail.com & Lee Burdett healthyteating@wellfedfamily.net
 Brevard-South Volusia: Ginny Parker-Hall (386) 589-6931, ginny.hall@gmail.com
 Estero/Fort Myers/Bonita Springs: Tracy Szelest (404) 992-5382, twszelest@gmail.com, swfnaturaliving.com
 Fort Lauderdale Metro: Anita Schubert (754) 220-6270, hazzanita@gmail.com
 Gainesville: Maria Minno (352) 375-3028, Maria.Minno@gmail.com & Karen Eberly (352) 374-4129, kareneberly@hotmail.com, facebook.com/groups/499501210152094/



WAPF CONFERENCE 2017 IN MINNEAPOLIS

George and Maureen Diaz at the well-attended
Weston A. Price Foundation booth.

Local Chapters

- Hernando/Pasco: John Williams (352) 232-4408, cultivatinghealth319@yahoo.com, wap-ph@yahoo.com & Carrie Perez (813) 997-4555, carrie@buyallimed.com
- Jacksonville: Diane Royal (904) 396-6881, droyalsmiles@gmail.com & Raymur Walton (904) 387-9234, raymurwalton@yahoo.com
- Miami/Miami-Dade County: Gary Roush (305) 221-1740, garyaroush@aol.com
- Pensacola: Tom & Stephanie Heiden (850) 698-6248, heidenservices@gmail.com, nourishingpensacola.com
- Pompano Beach: Mary Jo Fahey (954) 928-1852, maryjofahey@tds.net
- St. Petersburg: Mandy Lee realfoodrecovery@gmail.org
- Sarasota: Anya Adams (571) 332-2052, anyaadams@yahoo.com
- South Miami-Dade County: Mary Palazuelos-Jonckheere (305) 484-8402, marybenoit@aol.com
- Tampa: Sarah Pope thehealthyhomeeconomist@gmail.com, thehealthyhomeeconomist.com, health.groups.yahoo.com/group/WAPFTampaBay/
- Treasure Coast: Andrea Mastellone (516) 510-9920, rawflorida@gmail.com
- Vero Beach: Jody & Randy Old (772) 539-0220, jold@rbold.com, rbold@rbold.com
- Volusia & Flagler Counties: Mary Beth Michael (386) 753-4325, sharingnatural@gmail.com, sharingnatural.com
- GA Braselton: Michelle Polk (404) 291-5757, ajourneytowellness@me.com
- Cherokee County: Cindy Morrow (404) 775-1126, gloryspill@gmail.com
- Gray: Michele Stanford (678) 588-3338, graychapterwapf@gmail.com
- Dunwoody/Perimeter: Marina Peck & Terry Brown (404) 213-9857, peck.marina@gmail.com
- Macon: Christian Barnes (478) 318-5521, christianbarnes@mac.com
- Marietta: Debby Smith (770) 980-0921, dsatlanta@comcast.net & Kate Olschansky (678) 710-1328, katrina.reuss7@gmail.com
- Newnan/South Metro Atlanta: Carmen L. Reddick (470) 215-0377, wapfsouthmetro@yahoo.com
- North Georgia: Becky Plotner & Dennise Burns (423) 414-5425, theplotners@hotmail.com
- Rome: Teresa Lartundo (817) 505-6148, lartundota@gmail.com
- Roswell: Sandra Walker (770) 841-3437 & Kathi Butz (678) 662-4036, roswellwapf@yahoo.com
- Snellville/Stone Mountain: Heather Welsh (770) 367-5298, heather@rutrulyhealthy.com
- Warner Robins: Lori Freeman (478) 396-8379, lorifreeman1@cox.net
- HI Captain Cook (South Kona): Margaret A. Stokes (415) 686-8596, kunekai@gmail.com
- Haleiwa Town: Codee Samala-Passos (808) 366-5001, codexdot@gmail.com
- Maui: Sue Tengan (808) 276-4700, sueanntengan@msn.com
- Puna District, Hawaii County (Big Island): Sally Boyd-Daughtrey, ND & Donald Daughtrey (808) 965-2233, Vitality808@hotmail.com
- ID Eastern Idaho (Teton Valley, Rexburg, Ashton, Swan Valley, Island Park): Tibby Plasse & Mike Reid (443) 831-3366, victoria.e.plasse@gmail.com, paradisesspringsfarm@gmail.com
- Idaho Falls: Samantha Hanny idahofallswapf@gmail.com, facebook.com/idahofallswapf
- Rathdrum/CDA: Barbara Geatches (208) 964-3770, bgeatches@yahoo.com
- Sandpoint: Emily Neff (208) 360-7937, anomaly412@yahoo.com
- IL Central Illinois: Kate Potter (309) 338-7876, potter_kate@hotmail.com
- Decatur: Rachel Tiarks (217) 714-6203, Rachel.Tiarks@gmail.com
- DeKalb: Sandra Echevarria (815) 757-0883, rickoli@comcast.net
- Dixon: Vicki McConnell (815) 288-2556, vlmconnell@gmail.com
- Kankakee Area: Sara Sharp (708) 269-1517, sarasharp78@gmail.com
- Lake County/Northwest Suburbs: Linda DeFever (847) 526-6452, ocfever01@yahoo.com
- Northern Dupage County: Kathryn Pirtle & Olive Kaiser (312) 969-7572, kathypirtle@sbcglobal.net
- Quincy: Dr Mark & Karen Holschlag (217) 228-2040, markarenh@att.net
- St. Clair County: Gordon & Jennaver Brown (618) 567-1529, wapf_stclair@livewellinitiative.com, livewellinitiative.com/?page_id=14
- IN Bloomington: Larry Howard (812) 876-5023, info-wapf@betterlocalfood.org
- White County: Laurel Eakin (765) 412-3470, laureleakin@gmail.com
- IA Cedar Rapids/Iowa City: Elaine Michaels, NTP, CGP, CHFS (319) 377-0040, Elaine@NatureWillNurture.com
- Council Bluffs: Luana & Glenn Harman (712) 483-2011, luana.harman@gmail.com
- Des Moines: Teresa Fowler (515) 419-0731, roostersunrise@yahoo.com, facebook.com/groups/WAPFofDesMoines/
- Dubuque: Jim Earles (563) 588-2935, yogaspectrum@yahoo.com
- Lee County: Marie Rogers (314) 698-6189, Marie.20dishes@gmail.com, facebook.com/groups/WAPFLeeCountyIA/
- Louisa County: Emily Brown (847) 651-6400, livewellnourished@yahoo.com
- Madison County: Marcie Franzenburg (515) 462-6814, kmplus2@gmail.com
- Quad Cities: Lori Sullivan & Christina Veen (563) 355-4864, lorisullivan.nww@gmail.com
- KS Kansas City/Overland Park/Paola: Melissa McDonald (913) 221-7299, melissa@healthydirection4u.com & Debbie Mize (913) 563-1167, mizedw@me.com
- Lawrence: Mary Douglas dooterb@yahoo.com
- McPherson/Hutchinson area: Connie Newcome (620) 585-2556, cnewcome@gmail.com
- Topeka: Erin Coughlin (785) 633-5724, erinbridgetcoughlin@gmail.com
- KY Bath County: Sally Oh (859) 904-8018, oboyky@gmail.com & Courtney Byron (606) 336-6410, courtneygayle@gmail.com
- Bowling Green: Miranda Shipley Gonzales (859) 667-5808, miranda.renee.gonzales@gmail.com
- Elizabethtown: Missy Campbell (580) 574-2738, meli_be@yahoo.com & Lori Smith (270) 300-5412 heartlandwholelifeorders@yahoo.com

The Weston A. Price Foundation currently has 486 local chapters:
387 serve every state in the U.S. except North Dakota plus the District of Columbia
and 99 serve 29 other countries. Welcome new chapter leaders from Peru!

Local Chapters

- LA Acadiana: Daphne Olivier (337) 296-1628, wapfacadiana@gmail.com, chapters.westonaprice.org/lafayettela/
Greater Baton Rouge: Regina Tyndall (225) 772-6880, oldpathswellness@gmail.com
New Orleans: Christiane Wurmstedt (504) 756-6020, christiane.wurmstedt@gmail.com & Erin Reho Pelias (504) 343-8580, erin@mommyroux.com
Northshore: Nancy Blackall (985) 705-2938, nancrossi@gmail.com
Shreveport - see TX: Ark-La-Tex
- ME Auburn/Lewiston area: Sandy Parent (207) 225-6125, happycampers323@gmail.com
North Berwick & Sanford: David Plante (207) 676-7946, dplant@maine.rr.com & Pamela Gerry (207) 459-4146, pamelagerry@gmail.com
Oxford County: Donna Dodge (207) 452-2644, eatsmart@fairpoint.net
Portland: Jennifer Howlett (207) 894-4751, info@freepiritwellness.net, <https://www.facebook.com/groups/1489800664445456/>
Waldo County: Frank Giglio (207) 400-0595, frank@threelilyfarm.com
- MD Bowie/Annapolis: Liz Reitzig (301) 807-5063, liz.reitzig@verizon.net
Columbia: Gina Rieg (301) 602-6560, gina@happyguthacker.com
Harford: Lori Frisone (410) 294-4036, justmoveit@gmail.com
Linthicum: Amy DeVries (410) 789-1593, hysenthlaydew@yahoo.com, chapters.westonaprice.org/linthicummd
Prince Frederick: Patrick Crawford (703) 283-6826, patrickcrawford2001@gmail.com
Rockville: Lynda Moulton (301) 330-1148, jlmoulton@comcast.net
Talbot County: Caroline Wrightson (570) 730-2304, carolinewlac@gmail.com
Timonium/Hunt Valley/Cockeysville: MaryAnn Ley, DC (410) 628-9355, drmaryann.ley@gmail.com
- MA Boston: Gena Mavuli (443) 527-0408, holisticnutritionbasics@gmail.com
Burlington: Karen Potter (781) 799-5329, kpotter4health@gmail.com
Cape Ann: Cyndy Gray (978) 767-0472, justdairry@comcast.net
Newburyport: Kaylie Bishop (978) 994-6981, kn.bishop9@gmail.com & Kirsten White (603) 801-5408, artichokemyheart@gmail.com
Salem: Cynthia Castro C. Henriquez (781) 513-7888, cynthiacch@gmail.com
South Shore/S. Eastern MA: Cathy Sloan Gallagher (781) 356-1842, cathy@eatthoughtfully.com
Wayland: Nadia Cherkassky (508) 358-0278, nadia@empoweredthroughchoice.com, empoweredthroughchoice.com/resources/the-weston-a-price-foundation/
Westford: Kathy Lynch (978) 337-4450, westfordWAPF@icloud.com & Linda Cox (978) 828-3536, LindaCoxNow@gmail.com
- MI Ann Arbor/South Lyon/Brighton area: Jessica Feeman (313) 231-4908, jafeeman@gmail.com
Big Rapids: Bonnie Miesel (231) 823-8002, bmiesel869@gmail.com
Detroit Metro: Susan Randall (248) 828-8494, info@htnetwork.org, htnetwork.org, [facebook.com/groups/HTNetworkWAPF/](https://www.facebook.com/groups/HTNetworkWAPF/), [facebook.com/HTN-The-Metro-Detroit-Chapter-of-the-Weston-A-Price-Foundation-152427555144/](https://www.facebook.com/HTN-The-Metro-Detroit-Chapter-of-the-Weston-A-Price-Foundation-152427555144/)
Frankfort: Abby Beale (231) 352-7463, wapffrankfort@gmail.com
Genesee/Lapeer/N. Oakland: Kim Lockard (810) 667-1707, KimLockard@gmail.com & Lorna Chambers (810) 664-4372, chambersbl@charter.net
Holland/Zeeland: Delanie Aguilar (616) 240-6547, delanieaguilar@gmail.com
Ingham County: Rachel Wachs (586) 850-3585, Rachel@tranquilharborhealing.com
Jackson County: Heather McDougall (734) 320-3722, nourishingfarm@gmail.com
Marquette Area: Tim & Fae Presley (906) 942-7188, presley789@tds.net
Mason/Manistee County: Roland & Kristine Struve (231) 843-8081, respect4life@gmail.com
Menominee: Dana Tuma (715) 587-5257, mamasbooch@gmail.com
Midland: Grace Cummings (989) 687-5425, gracecummings@charter.net
Monroe County: Maurine R. Sharp, RN (734) 240-2786, maurine@monroehealthmatters.com
Muskegon: Mark Christenson (231) 740-0816, mark_christenson@msn.com & Lisa Middlecamp-Lowder (231) 744-1991, lisa@thriveforreal.com
Northeast Michigan: Bob Turek, DC & Lisa Turek (989) 724-7383, alconachiropractic@gmail.com
Wolverine/Cheyboygan County: Wendy & Daniel Babcock (231) 357-4001, serendipityfarmswolverine@yahoo.com
- MN Blue Earth & Nicollet Counties: Sherry Lorentz (507) 546-3344, lorentzsherry@gmail.com
Chisago City: Therese Asmus (612) 743-0721, artista@gmail.com
Minneapolis/St. Paul: Susie Zahratka (651) 329-8401 & Becca Griffith, spwapf@gmail.com, stpaulminnesota.westonaprice.org



Gina Rieg, HappyGut Hacker and WAPF chapter leader in Columbia, Maryland, hosts monthly potlucks. Building community, connecting with other like-minded people and enjoying nutrient-rich meals are what these fun potlucks are all about! If you are in the DC/MD/VA area, please contact gina@happyguthacker.com for more information.

Local Chapters

- Moorhead/Fargo (Minndak): Todd Ferguson, ND (218) 284-1188, drtodd@prairiend.com
 Owatonna: Darren Roemhildt, DC (507) 451-7580, darrenr@drdarrenowatonna.com
 Prior Lake: John Myser (952) 226-2208, johnmyser@me.com
 Rochester: Kay Conway (507) 421-0865, kcmckc@aol.com
 St. Cloud: Jane Frieler (320) 597-3139, bodyhealthyself@arvig.net
 Sauk Rapids: Liz Thares (320) 253-7457, jefam@charter.net
 Twin Cities, West Metro: Andrea Kurilla (763) 913-7835, reichertrd@gmail.com & Kelly Suggs suggskel@gmail.com, facebook.com/westmetrowapf/?ref=bookmarks
 Two Harbors: Leah Bailey (218) 834-6974, leah@superiorgatewaylodge.com
 White Bear/Forest Lake: Diane Smith (651) 428-3462, dianesmith204@hotmail.com
 Winona Area: Kate McColl (507) 460-2465, katolah@gmail.com & Johanna Weissing lapucelle@hbci.com
- MS Gulf Coast: Brooke Shambley (540) 460-8034, boholicmom@gmail.com & James Shambley (228) 224-2727, shambleyjo@yahoo.com
- MO Carthage: Leesa Robinson (417) 358-7831, wholisticpathways@live.com
 Columbia: Shayna Fasken DC (573) 442-8959, shaynafaskendc@gmail.com
 Eastern Missouri: David J. Henderson (573) 242-0739, quality.djh@gmail.com
 Farmington: Karin Ladd (573) 747-1889, nkladd@aptitudeinternet.com
 Lake of the Ozarks: Heidi Shewmaker (573) 378-0700, heidilbolton@yahoo.com
 Seymour: Joe Tittiger (239) 297-4189, joe@tittiger.com
- MT Billings: Corinne Hart (406) 210-6268, eatwell.livwell@gmail.com
 Helena: Andrea Jones (406) 202-1602, afotomama@gmail.com
 Missoula: Bonnie & Jerry Lauer (406) 241-1048, missoulawapf@gmail.com
- NE Lincoln: Gus Ponstingl (402) 770-2272, groggygroggy@yahoo.com
 Omaha, South: Miranda Sherman (402) 637-8929, sparkysherman@msn.com
 O'Neill Area: David & Barbara Wetzel (402) 858-4825, gppoffice@flco.biz
- NV Gardnerville: Gillian Ferranto (775) 901-3614, gferranto@gmail.com, chapters.westonaprice.org/gardnervillenv/
 Las Vegas: Rosemary Duma & Ken Hardy (702) 897-3730, panacea1@peoplepc.com
 Reno: Bari Caine (775) 849-7940, blue.sky333@att.net
- NH Amherst-Nashua Area: Susan Stefanec (603) 673-0890, thinkglobal@comcast.net
 Keene Area: Sandra Littell (603) 209-2047, sandrateena@gmail.com & Celeste Longacre info@celestelongacre.com
 New London: Linda Howes (603) 526-8162, linda@nourishingwellness.net
 Upper Valley: Louise Turner (603) 272-4305, journeytowholeness2000@yahoo.com
- NJ Bergen/Passaic Counties: Charlotte Hiller (201) 819-2677, bergenpassaicwapf@gmail.com & Laura Crawford (914) 629-8151
 Cherry Hill: Sarah Outlaw (856) 667-6805, info@nhicsouthjersey.com
 Jersey City/Hoboken: Jessica Annunziata (201) 788-4367, jessica.cultureden@gmail.com & Kevin Spyker (917) 254-0573, kevin.cultureden@gmail.com
 Princeton: Sandeep Agarwal, sandeep@wapfnj.org, wapfnj.org
 Southampton: Judith Mudrak (609) 859-3828, reversemydisease@yahoo.com
 Summit: Maria Tabone (973) 378-5285, maria@theholisticroot.com
 Sussex County: Lucille VanderPloog (973) 600-9728, lucy@nac.net
- NM Albuquerque, West: Thomas Earnest DOM (505) 899-2949, tcearnest@comcast.net
 El Dorado: Lewis Gordon (505) 466-3418, eldoradowapf@gmail.com
 Las Cruces: Sarah Smith (575) 373-1622, skydisco3@gmail.com & Don Henderson (575) 202-8866, dhenderson@comcast.net
 Las Vegas: Delia Garcia (505) 425-9351, dgarciasf@gmail.com, facebook.com/groups/1427049344045717/
- NY Adirondacks, Northern: Cathy Hohmeyer (518) 891-1489 natureconnects@live.com, Lynn Cameron (518) 327-3470, lynn@frontier.com
 Brooklyn: Donna Sergi, DC, (718) 375-4355, drdonnasergi@gmail.com
 Buffalo: Jill Tiebor-Franz (716) 655-5133, jatf62@roadrunner.com & Carol Poliner (716) 544-4157, carol.poliner@gmail.com
 Clifton Park: John Spence (518) 348-1935, jspencedc@gmail.com

CHAPTER LEADER KATHY LYNCH IN WESTFORD, MASSACHUSETTS

At a WAPF booth, Kathy demonstrates how many teaspoons of sugar are in a cola bottle, with the child's grandmother approving of the message.



Local Chapters

Columbia County: Ashley Shea Legg (518) 392-0214, trillium75@gmail.com
 Cooperstown: Shannon Kirch & Daniel Byler (518) 224-0817, mountainviewdairy13439@gmail.com
 Dutchess County: Hannah Springer (845) 835-8166, Hannah@TheOliverWestonCompany.com
 Franklin Square/Elmont/part of Nassau County (see also Suffolk County): Caroline Barringer (516) 208-2422, info@immunitrition.com,
immunitrition.com/Milk-It___Real_Food_Club.html
 Great South Bay: Jill Tieman (631) 563-8708, jill@realfoodforager.com
 Howard Beach: Debbie Jackson (917) 449-1880, bodyinbalance99@yahoo.com
 Ithaca: Joyce Campbell (610) 334-4205, jyccmpbl@gmail.com
 Lynbrook/Valley Stream/Oceanside/Rockville Center: Giuliana Mazzeo (516) 593-5167, giulia07@verizon.net, NutritionWellnessCenter.com
 Monroe: Joseph & Denise Lombino (845) 783-9797, dlombino@yahoo.com
 New York City: Angela Cimo (718) 468-8713, wapf.nyc@gmail.com & Helena McCarthy (917) 678-8696, Helena.s.mccarthy@gmail.com,
facebook.com/WAPF.NYC
 Niagara County: Margaret M. Zaepfel (716) 523-3761, margaretzaepfel@gmail.com
 Oneida County/Canton: Lynn Shaw (315) 794-5666, lynnshaw42@gmail.com
 Putnam County: Arlene Figueroa (845) 628-7009, Arlene@arlenefigueroa.com
 Riverhead: Chris Nelson (631) 708-5350, cgnelsondc@gmail.com
 Rochester: Laura Villanti (585) 451-0038, laurav@rochester.rr.com & Kristine Brassie (585) 750-5069, kbrassie@rochester.rr.com,
health.groups.yahoo.com/group/rochesterNYwestonaprice/
 Ulster County-Hudson Valley: Dina Falconi (845) 687-8938, dfalconi@gmail.com
 Upper Delaware: Nancy Pierro & Maria Grimaldi (917) 674-3895, nvpierro@yahoo.com
 Warwick: Robert Kramer, DC (845) 986-9027, kramernutrition845@gmail.com
 Westchester: Marizelle Arce & Louis Belchou (917) 282-5622, naturomari@gmail.com, chapters.westonaprice.org/westchesterny/

NC Asheville: Maria Parrino (828) 393-7733, health4u@ureach.com
 Asheville, East: Jaime Frinak (828) 337-0105, jaim@foodwithattitude.net & Janna Gower (828) 231-7014, jannagower@gmail.com
 Charlotte: Catherine Atwood (704) 277-8166, chapters.westonaprice.org/charlottenc
 Durham/Raleigh: Nonna Skumanich webnsku@gmail.com & Laura Combs movingstronglyforward@yahoo.com
 Kannapolis: Christine Williams (704) 634-8128, shinewellmt@gmail.com, nourishingtables.com
 New Bern: Mandy Finan (252) 240-9278, newbernwapf@gmail.com, chapters.westonaprice.org/newbernnc/
 Ocracoke: Laura Hardy (252) 588-0217, ljhwellness@icloud.com
 Winston-Salem: Scott Gillentine (336) 331-2430, creator313@gmail.com, facebook.com/wapwinston/

ND Fargo: See Moorhead, MN

OH Allen County: Laurie Smith (419) 568-3951, sendtolauriesmith@gmail.com
 Canal Fulton: Betsy Clay (330) 854-6249, wapfchaptercanalfulton@gmail.com
 Cincinnati: Ellie Sodergren (513) 386-7523, catholicwapfer@gmail.com
 Columbus: John W. Johnson, DDS, (614) 775-9300, info@midwestholisticdentistry.com
 Dayton: Leah E McCullough (859) 380-9737, unconventional@gmail.com & Sidra McNeely (937) 306-8335,
nourishingconnectionsdayton@gmail.com, chapters.westonaprice.org/daytonoh/
 Defiance: Ralph & Sheila Schlatter (419) 399-2350, rschlat@bright.net
 Holmes County: Owen Yoder (330) 763-4938, youcandoit212@gmail.com
 Kenton/Hardin County Area: Jane Kraft (419) 673-0361, kraftjane826@gmail.com
 Knox, Richland & Morrow Counties: Marc & Jocelin Whitaker (614) 506-8461, contactus@whitakersfarmmarket.com
 Medina: Timothy Weeks, DC & Amanda Weeks, DC (330) 764-3434, clinic7store@gmail.com
 Pepper Pike: Matthew Kogan, DMD & Laura Kogan (440) 666-3477, kogandmd@gmail.com
 Rawson: Wayne Feister (419) 963-2200, wayne@feiway.com
 Sidney/Shelby County: Pam Carter (419) 628-2276, gpcarter@watchtv.net
 Toledo: Lisa Bowe (419) 262-1023, lisabowe00@gmail.com, WAPFToledo.org, mercyviewmeadow.org
 Upper Miami Valley: Kenny Adams & Mike Smith (937) 416-5533, uppermiamivalley@gmail.com
 Yorkshire: Dan Kremer (419) 336-5433, dan@eatfoodforlife.com

OK Ardmore/Lone Grove: Sandy Steele (580) 513-0728, sgcs79@outlook.com
 South Central/Texoma Area: Mary Friedlein (580) 795-9776, mary@myrhinmail.com
 Stillwater: Sherry Roden (405) 612-4593, sherryroden@gmail.com
 Tulsa: Joy Remington (918) 557-3223, joyremington@yahoo.com

OR Bend: Nicolle Timm, RN (541) 633-0674, nikipickles@gmail.com & Terrie Atkin (949) 235-4994, terrie_atkin@yahoo.com,
chapters.westonaprice.org/bendor/
 Central Oregon: Rebecca & Walt Wagner (541) 447-4899, justwagner@msn.com
 Columbia River Gorge Area: Jacki Sterner & Tom Watson (541) 716-6166, jacki@culturestarter.org
 Douglas County: Jennifer Grafiada-Furbush, NTP, (541) 236-8264, info@loveyourselfntp.com, umpquaafresh.com
 Eugene: Lisa Bianco-Davis info@eugenewestonaprice.org, eugenewestonaprice.org/, krautpounder.com
 Helvetia/Hillsboro: Jenna VanLooven (503) 913-7895, jenna.vanl@gmail.com
 Klamath Falls: Teresa Penhall (541) 281-8821, Food4life@fireserve.net
 La Grande: Robert & Melissa Martin (541) 428-2177, valleyreformed@gmail.com
 Medford (Rogue Valley, Southern OR): Summer Waters, LAC, NTP, CGP, (541) 326-8952, info@summerwaters.com, SummerWaters.com, health.groups.yahoo.com/group/RogueValley-WAPF, facebook.com/rvwapf
 Portland: Sandrine Perez & Rachel Splitler, portlandchapter@gmail.com, chapters.westonaprice.org/portlandor/

PA Berks County: Cherise Harper (484) 336-4328, charper@ptd.net

Local Chapters

Bucks County: Erica Evans (201) 452-2922, buckscountywapf@gmail.com
 Chambersburg & Gettysburg Area: Penny Norrie (321) 543-2327, penny@lovebythespoonful.org, gettysburgareawapf.org
 Chester County: Annmarie Cantrell (215) 499-8105, ambutera@verizon.net, Dan Wright (610) 933-1776, danw59@yahoo.com
 Cumberland & Perry Counties: Erin Donley (717) 256-1812, erin.FHWA@gmail.com
 Erie: Jamale Crockett (814) 566-0218, jamalecrockett@yahoo.com
 Greensburg: Sara Vivona, DC & Culyyn Consales, DC (724) 205-6260, drsara@ihwcenter.com
 Lancaster County: Raymond Stoltzfus (717) 442-9208, info@dutchmeadowsfarm.com
 Lehigh Valley: Martin Boksenbaum (610) 767-1287, wapf-lv@wapf.org, wapf4lv.wordpress.com
 Mansfield: Lawrence T. Bellows DC & Brit Reed DC (570) 662-0927, bellowshealthsystems@gmail.com, bellowshealth.org
 Northern Bedford County: Ella McElwee (814) 766-2273, emcelwee@healthbychoice.net & Kathleen Brumbaugh (814) 928-5135, kmbrumb@comcast.net
 Pittsburgh: Amelia Martin (304) 288-1454 ameliamartin630@gmail.com
 Towanda: Mary Theresa Jurnack (570) 265-9641, jurnacks@hotmail.com
 Upper Delaware River: Lucia Ruedenberg-Wright (212) 254-3551, lucia@lrw.net & Maria Grimaldi, (845) 482-4164, pantherrock@hughes.net
 Waverly, North: Gail Weinberger (570) 561-6970, gailweinberger@gmail.com
 York County: Erin Shrader (717) 870-4225, eshrader1020@gmail.com

- RI Lincoln: Kathleen DiChiara (401) 400-0930, rhode2health@gmail.com
 Northwestern RI: Lisa Serapiglia (401) 949-6222, lisa@lesslethalconsulting.com, facebook.com/HomeandLifeAbundantly/
 Providence: Richard Suls (401) 484-7487, Richard@richardsuls.com, chapters.westonaprice.org/providenceri/
- SC Charleston: Erikka Curia, DC (843) 252-0540, livebetter@newspringchiropractic.com
 Columbia: Kathryn Seppamaki (803) 238-9215, katsep@aol.com
 Greater Greenville: William Hendry, DOM (864) 365-6156, WAPFGreenville@gmail.com, chapters.westonaprice.org/greenvillesc/
 Pickens County: Jill Fleeman (864) 506-4221, wapfpickenscounty@gmail.com, chapters.westonaprice.org/pickenssc/
 Sumter: Robby Elmore (803) 469-0824, robbie_elmore@msn.com
 Winnsboro: Julie Rambo (803) 718-3354, rambo.julie@yahoo.com
- SD Selby: Julie & Bill Rosin (605) 649-7224, sdsavvygal@yahoo.com
 Sioux Falls: Elsa Vande Vegte (605) 906-2496, elsavandevegte@gmail.com
 Yankton: Mary Walkes mwalkes@gmail.com, (605) 661-6726 & Crystal LaBrake, caballowhisper@hotmail.com, chapters.westonaprice.org/yanktonsd/
- TN Chattanooga: Michele Reneau (843) 814-6680, chattanoogaWAPF@gmail.com, facebook.com/groups/ChatanoogaWAPF/
 Memphis: Suzy Waldron (901) 201-7247, suzywaldron@yahoo.com
 Nashville/Brentwood/Franklin: Shawn Dady (615) 336-2286, tennesseeansforrawmilk.com
 Southern Middle: Nancy Webster (931) 527-3587, creativemess10@yahoo.com, health.groups.yahoo.com/group/WAPF-NourishingSouthernMiddleTN/
 Sumner County: Codi R. Kirk (615) 714-6247, foodwise3@gmail.com
 Tri-Cities: Dierdre Beard (423) 202-5685, zdas42@goldmail.etsu.edu

LOCAL CHAPTER BASIC REQUIREMENTS

1. Create a food resource list of organic or biodynamic produce, milk products from pasture-fed livestock (preferably raw), pasture-fed eggs and livestock and properly produced whole foods in your area.
2. Provide a contact phone number to be listed on the website and in our quarterly magazine.
3. Provide Weston A. Price Foundation materials to inquirers, and make available as appropriate in local health food stores, libraries and service organizations and to health care practitioners.
4. Provide a yearly report of your local chapter activities.
5. Be a member in good standing of the Weston A. Price Foundation.
6. Sign a contract on the use of the Weston A. Price Foundation name and trademark.

OPTIONAL ACTIVITIES

1. Maintain a list of local health care practitioners who support the Foundation's teachings regarding diet and health.
2. Represent the Foundation at local conferences and fairs.
3. Organize social gatherings, such as support groups and pot luck dinners, to present the Weston A. Price Foundation philosophy and materials.
4. Present seminars, workshops and/or cooking classes featuring speakers from the Weston A. Price Foundation, or local speakers who support the Foundation's goals and philosophy.
5. Represent the Weston A. Price Foundation philosophy and goals to local media, governments and lawmakers.
6. Lobby for the elimination of laws that restrict access to locally produced and processed food (such as pasteurization laws) or that limit health freedoms in any way.
7. Publish a simple newsletter containing information and announcements for local chapter members.
8. Work with schools to provide curriculum materials and training for classes in physical education, human development and home economics.
9. Help the Foundation find outlets for the sale of its quarterly magazine.

Local Chapters

- TX Abilene/Jim Ned Valley: Wiepie Cross (325) 669-6367, wxr08a@acu.edu
 Ark-La-Tex: Jerica Cadman (903) 665-7076, jericacadman@gmail.com
 Austin: Kristen Files & Suzanne Rittenberry WAPFAustin@gmail.com, (512) 632-5795 (Suzanne)
 Beaumont: Vanessa Villate (409) 554-3351, vanessa.villate7@gmail.com
 Brazoria County: Jackie Hunt (979) 236-1019, jdhunt1288@hotmail.com
 Bryan/College Station: Gigi Greene (979) 777-5688, gracefullbody@gmail.com
 Dallas: Ken Taylor (972) 233-2346, drken_taylor@yahoo.com, traditionaltx.us
 Denton: Michelle Eshbaugh-Soha (940) 565-0517, ravensphere@gmail.com
 HEB (Mid-Cities DFW): Hannah Setu (817) 590-2257, elshaumbra@yahoo.com
 Houston-Galveston: Carolyn & Brice Biggerstaff (281) 694-5612, info@wapf-houston.org, wapf-houston.org, realfoodhouston.com, facebook.com/WAPFHouston/, facebook.com/groups/houstonwapf/
 Lubbock: Gafford (806) 797-7653, boogafish@gmail.com & Megan Cannon megdcannon@gmail.com
 Mansfield: Susanne Engelbert (682) 518-1931, eternal@eternahealthfood.com
 Montgomery County: Tori & Dave Jarrar (832) 298-7472, chronically.nourished@gmail.com
 Palestine: Rashel Harris (903) 948-9860, rashelharris@gmail.com, thepromiselandfarm.org
 Plano: Christy Porterfield (972) 612-1800, care@healthworkstx.com
 San Antonio: Michelle Allen (210) 859-8822, westonapriceSA@gmail.com
 Wichita Falls area: Monica Wilkinson (940) 357-9473, wilkinson.monica@gmail.com
 Wise County: Pamela Klein Johnson (940) 427-2609, wapf@rosecreekfarms.com
 Wood County/Piney Woods: Nancy Gail & Karl Falster (903) 629-3034, chef@southerngrace.biz
- UT Alpine: Michelle Lye (801) 362-6933, mickyllye@comcast.net
 Davis County: Katherine & Troy Atkinson (801) 292-7574, kacorner@comcast.net
 Salt Lake City: Anji Sandage (801) 842-8756, anji.sandage@gmail.com
 Utah County: Betty Pearson (801) 477-7373, cellolady2@gmail.com, facebook.com/groups/337490273004397/
- VT Londonderry/Manchester: Anne McClaran (802) 824-4146, amccclaran@gmail.com
 Northwest Vermont: Doug Flack (802) 933-7752 & Lehte Mahoney (802) 528-5000, info@nutritionvermont.com, flackfamilyfarm.com
 Southwestern Vermont: Cynthia Larsen (802) 645-1957, cynthial@myfairpoint.net
- VA Alexandria: Janice Curtin (703) 751-5505, janicecurtin@gmail.com, chapters.westonaprice.org/alexandriava/
 Bedford County: Ben & Carly Coleman (434) 299-5193, mtnrunfarm@gmail.com, mountainrunfarm.com
 Blacksburg: Kimberly Bears (540) 951-5376, wapfblacksburg@verizon.net, wapfblacksburg.org
 Chesterfield: Ana Mahoney (804) 560-7222, ana.p.mahoney@gmail.com
 Eastern Shore of VA: Karen Gay (240) 393-5625, karengreergay@gmail.com, facebook.com/groups/esvawapf/
 Falls Church: Rachel Abbett (703) 678-6757, rabbett@luminousandgrounded.com
 Goochland County: Linda Hosay (804) 457-3714, awealpha@juno.com
 Northern Shenandoah: Maureen Diaz (540) 551-3255, mamasfollies@gmail.com
 Gloucester County (Middle Peninsula): Ann George (757) 645-7586, mikegeorge333@gmail.com & Emma Watterson (919) 323-6300, emmawatterson816@hotmail.com
 Page County: Zachary & Jessica Fanaro (540) 713-2322, zfanaro@gmail.com
 Purcellville: Valerie Cury Joyner (540) 338-9702, fotoner2@aol.com
 Rappahannock County: Deverell Pedersen (540) 683-8113, wapfrapland@gmail.com
 Reston: Jack Moore (703) 758-9544, moore3@erols.com
 Roanoke Valley: Frank & Eva Jo Wu (540) 989-1617, fej@virginiarollers.com
 Stafford: Natasha Fields (703) 772-0069, staffordWAPF@gmail.com
 Staunton & Lexington: Susan Blasko (540) 414-7879, ntconsultations@cox.net & Julie Goodell (202) 321-2976, julie.goodell@gmail.com
 Vienna: Amber Condry (571) 418-2856, viennaWAPF@gmail.com
- WA Airway Heights: Annie Patrick (509) 742-0807, AHchapterWAPF@gmail.com
 Bellingham: Carla Witham (360) 671-2668, ccwitham@gmail.com, bellinghamrealfood.com
 Clark County: Madeline Williams (360) 921-5354, clarkcountywapf@gmail.com
 Jefferson County: Nala Walla, MS, NTP, (360) 643-3747, nala@bwellnow.org
 Long Beach Peninsula: Michelle Collins (407) 221-6173, dmmcollins@att.net
 North Kitsap: Keri Mae Lamar & Thomas Lamar, DC, (360) 633-5008, kerimae@anchorchiropractic.net
 Orcas Island: Regina Zwilling (360) 376-2009, reege@bengalpada.com
 Point Roberts/Whatcom County/Lower Mainland of BC: John Hammell (360) 945-0352, (800) 333-2553, jham@iahf.com, meetup.com/WAPF-Point-Roberts/manage/settings/basic/
 Richland/Kennewick/Pasco: Joanne Butler NTP (509) 205-9967, joanne@abcsofwellness.com
 Seattle: Sergey Zdorovetskiy (206) 697-9569, zdorovs@gmail.com
 Washougal: Janna Jones-Thalhofer (360) 837-2197, orchidhealing@hotmail.com

CHAPTER RESOURCES

Resources for chapter leaders can be accessed at westonaprice.org/local-chapters/chapter-resources, including our trifold brochures in Word format, chapter handbook and PowerPoint presentations.

LOCAL CHAPTER LIST SERVE

Thank you to Maureen Diaz a chapter leader in Pennsylvania, for administering the local chapter chat group. New chapter leaders can sign up at <http://groups.yahoo.com/group/wapfchapterleaders/>.

International Chapters

Wenatchee: Allegra Hart, ND (509) 663-5048, info@naturaeclinic.com

Whidbey Island: Roy Ozanne, MD (360) 321-0566, royozanne@whidbey.net & Sandra Rodman (425) 214-2926, wholehealth@whidbey.com

WV Huntington: Tina Stratton (304) 784-4061, tinia@lucasfarmwv.com

WI Ashland/Washburn/Bayfield: Julie Casper (715) 779-3966, westonprice@healthelite.org, chapters.westonaprice.org/ashlandwi/
 Clark, Portage & Wood Counties: Elizabeth Schlinsog (715) 305-2526, liz.walkabout@gmail.com
 East Troy: Brandon LaGreca, Joy Hernes (262) 642-4325, office@easttroyacupuncture.com, chapters.westonaprice.org/easttroywi/
 Eau Claire: Lisa Ornstein & Scott Westphal (715) 410-9275, chippewavalleywisetraditions@yahoo.com
 Gleason: Wendy Fassbender (715) 219-5435, wendy.fassbender@gmail.com
 Green Bay: Marian Schmitz & Vashni Seitzer (920) 865-7479, lehrermf@netnet.net
 Madison: Carolyn Graff (608) 221-8696, zgraff@charter.net, groups.yahoo.com/neo/groups/wapfmadisonchapter/info,
chapters.westonaprice.org/madisonwi/, [facebook.com/wapfmadison](https://www.facebook.com/wapfmadison)
 Milwaukee: Muriel Plichta (414) 383-2121, mplichta@milwpc.com
 Ozaukee/Washington County: Susan Wichman (262) 853-8000 & Bernie Rosen (262) 389-9907, wapfozwash@gmail.com
 Sauk County: Rich & Vicki Braun (608) 495-6117, richbraun66@gmail.com
 South Manitowoc & Sheboygan Counties: Emily Matthews & Laura Barrie (920) 273-1849, meg11851@ymail.com
 Two Rivers & Manitowoc: Roy Ozanne (920) 755-4013, royozanne@whidbey.net
 Waukesha: Elizabeth Schuetze (262) 542-6295, e713521036@aol.com

WY Buffalo: Susan Pearce (307) 751-8505, spearce@vcn.com
 Evanston: Rhonda & Michael Lewis (307) 724-6537, highpointacupuncture@gmail.com
 Jackson: Martha Berkesch (307) 690-1502, martha@mothernaturenutrition.com, chapters.westonaprice.org/tetonswy/

ARGENTINA

Buenos Aires: Madeleine Barrera 549 1132 3458 93, madbarrera@gmail.com

AUSTRALIA

NSW Bega Valley: Emily Stokes 0407 192 899, thewordgarden@hotmail.com
 Byron Bay: Edward Kent 0435 118 146, edokent@yahoo.com, [facebook.com/westonapricebyronbay/](https://www.facebook.com/westonapricebyronbay/)
 Griffith: Sheryl Venables 04 1741 3956, griffithwapfchapter@gmail.com
 Lismore: Deborah Sharpe 042 978 1392, australianwildfood@gmail.com
 Manning Valley (Taree): Samantha Zajko & Tim Thomas 61 407 766 525, sammi@fermentingaustralia.com.au
 Milton/Ulladulla: Rhonda Baker 04 2709 6050, woman.rhonda@gmail.com
 Stuart Town: Hal & Sally Harris (02) 6846 8261
 Port Macquarie: Rachael Wells 04 1203 4305, aquamarlin28@gmail.com
 Sydney: Sally Walsh 0416 277 607, sally@sallywalsh.com.au
 QLD Brisbane: Julie Phillips 0417470799, mail@wisefood.com.au & Edie Wicker 0404 56 1880, edie@nourishingecology.com.au
 Cairns & Atherton Tablelands: Tina Taylor 0488 040 242, tina@thebreathingclinic.com, thebreathingclinic.com
 Guanaba/Mudgeeraba: Kyle Grimshaw-Jones 0423 647 666, kyle@conscioushealing.com.au
 Sunshine Coast/Conondale/Mary River Valley: Sven & Karen Tonisson (07) 5435 0041, gaia@ozemail.com.au
 Sunshine Coast: James Cutcliffe (07) 5446 9299, jamescutcliffe@gmail.com
 Toowoomba: Elspeth Haswell-Smith 0404 002 771, elspeth@foodforlifecoach.com.au
 Townsville area: Rene Erhardt 07 4789 2184, rene.j.erhardt@gmail.com
 TAS Hobart & Huon Valley: Jillaine Williams 0407 403 787, jillainepp@gmail.com
 VIC Bendigo: Joy Stone 0417 164 756, jdhoneypatch@yahoo.com.au
 Cranbourne: Lorraine Pratley 0403 845 278, lorrainepratley@hotmail.com
 Kardella/Korumburra: Brigid Kenndy 0404 912 370, brigidf1@me.com
 Yarra Valley: Fenja Schulze 0433 420 402, fenja_schulze@yahoo.com
 WA Albany: Mike & Barbara Shipley (08) 9845 1609, Shipleysorganics@bigpond.com
 Fremantle: Lisa Thornton 0418 300 477, info@getcultured.com.au
 Warren/Blackwood: Abbie Fetter 0897614764, wbwapf@yahoo.com.au
 WAPF Australia Email Chat Group: health.groups.yahoo.com/group/westonapriceaus/
 Moderated by: Filippa Araki filippa91@yahoo.com.au

BELGIUM

Heusden-Zolder: Kristien Metten 0495990855, Kristienmetten@live.be

BULGARIA

Sofia: Grigor Monovski 359.87.635.9838, wapf.sofia@xpana.bg, chapters.westonaprice.org/sofiabg/

CANADA

AB Calgary: Susan Quirk (403) 483-4338, calgarywapf@gmail.com
 Edmonton: Lori Clapp & Eva Niven (780) 417-3952, nourishingtraditions@gmail.com
 Peace Country: Mary Lundgard (780) 338-2934, plundgard@telus.net or Levke Eggers (780) 568-3805, levke@telusplanet.net
 BC Burnaby-New West: Marianne Lightfoot (604) 420-6185, maryan24@telus.net
 Chilliwack: Anna Bonde (604) 819-4101, anna_mvmm@telus.net
 Duncan: Andrea Larsen (778) 422-2286, nutrition_matters@hotmail.com
 Powell River: Dirk & Ingrid De Villiers (604) 489-0046, dirkdevilliers@telus.net
 Qualicum Beach: Hilary Detwiller (415) 866-6106, hilarydetwiller@icloud.com
 Vancouver: Sonya McLeod (604) 677-7742, LMhomeopath@gmail.com, groups.yahoo.com/neo/groups/WAPFVancouver/info,
chapters.westonaprice.org/vancouverbc/, [facebook.com/westonapricefoundationvancouverbcchapter/](https://www.facebook.com/westonapricefoundationvancouverbcchapter/)
 Victoria: Linda Morken (250) 642-3624, wapf.victoria.bc@shaw.ca, [facebook.com/wapfvancouverislandchapter](https://www.facebook.com/wapfvancouverislandchapter), wapfvictoriabc.wordpress.com/

International Chapters

- MB Winnipeg: Kenny Keating & Sarah Popovitch (204) 990-7711, keating7711@gmail.com
 NS Annapolis Valley: Shirley Scharfe (902) 847-1736, glscharfe@eastlink.ca
 ON Grey-Bruce: Elisa Vander Hout (519) 369-3578, glencoltonfarm@gmail.com
 Hamilton: Ken & Claire Dam (905) 580-1319, kenandclaire@gmail.com
 Kingston: Sue Clinton (613) 888-1389, sue@clintondentistry.com, & Bob Clinton, DDS, (613) 376-6652, Robert@clintondentistry.com, wapfkingston.org
 Kitchener, Waterloo, Cambridge: Ulymar Rocha (519) 579-1747, info@therockspa.com
 Ottawa: Jean-Luc Boissonneault (613) 859-2333, jlb@freeformfitness.ca, nourishingottawa.com
 Prince Edward County: Karen Selick & Herb Cooper (613) 393-5320, kas@karsenelick.com
 Toronto (Downtown): Patricia Meyer Watt (416) 653-7112, TorontoWAPF@gmail.com
 SK Regina: Sandra Brandt (306) 359-1732, brandt.s@sasktel.net, WAPFRegina.wordpress.com
 Southwest Saskatchewan: Pamela Wolanski (306) 560-3258, pjg59@hotmail.com
- CHILE
 Coyhaique: Ann Oldham Michael & Ema Morales 56 67 245288 or 56 09 812 4987, pacificorim@gmail.com, emacibel@gmail.com
- COSTA RICA
 Turrialba & San Jose: Gina Baker & Reinhold Muschler 2289 8806, gmuschler@gmail.com
- CROATIA
 Samobor: Domagoj & Josipa Dzojic 00385(0)95/5681-881, Info@MudrePredaje.com, mudrepredaje.com, skype: dzojiczgcro
- DENMARK
 Koebenhavn: Aske Toegern Wisum 0045 2966 0338, astoewi@gmail.com
- FRANCE
 Charente: Berenice Wehl 05-17-20-65-92, bbwehl@me.com
 Luxeuil-Vesoul: Elisabeth Roess 09 80 38 58 78, familleroess@yahoo.fr
 Provence Cote D'Azur: Beatrice Levinson 06 17 75 63 07, info@gaps_naturopathe.fr
- GERMANY
 Eifel: Anita Reusch & Douglas Mitchell, 0049-(0)6555-242, anita@roylt.com
 München: Marlon Bonazzi marlonbonazzi90@gmail.com
- HUNGARY
 Budapest: Katalin Kokavecne Nagypal 36 30 206 9722, katalin.nagypal@gmail.com, chapters.westonaprice.org/budapesthungary/
- IRELAND
 Galway: Maya Flynn 3538 6231 7036, maya.pankowska@gmail.com
 Limerick: Deirdre MacMahon 353 (086) 376 6787, deirdremacmahon@gmail.com
 Tipperary: Anne Maher 353 8 7792 7311, maher.anne1@gmail.com
- ITALY
 Casentino Area: Sara Russell & Marco Prina 39 371 184 7372, lacucinaprobiotica@gmail.com
- IRAN
 Tehran: Soroush Niknamian 00989121939806, soroushniknamian61@gmail.com & Somayeh Zaminpira banafshehpira@gmail.com
- MEXICO
 Mexico City: Galia Kleiman 5255 43608713, galiaklei@yahoo.com
- NETHERLANDS
 Amsterdam-Alkmaar-Beverwijk: Iris Maier 31 625 181 424, industriousiris@gmail.com, facebook.com/devoedzamekeuken
 Groningen, Friesland, en Drenthe: Esmee Verbaan 0031-626999936, info@vitalitandzorg.nl
 Limburg: Tanja Stevens 061 6474 192, info@gezondgestel.nl, limburg.westonprice.nl/, westonprice.nl/waar-vind-ik-goed-eten/
- NEW ZEALAND
 Auckland: Alison Ellett (09) 420-8548, alison@wapf-auckland.co.nz, wapf-auckland.co.nz/
 Coromandel Peninsula: Caroline Marshall 027 438-4654, whitiangawellness@gmail.com & Carl Storey 027 355-1701, carlstorey@xtra.co.nz
 Gisborne: Bridget Scully & William Lane 06 8633042 & 02 1101 7405, bridgetscully@gmail.com, kiwilampo@gmail.com
 Hamilton: Marea Verry 64 7 8501587, wapfhamilton@gmail.com
 Hawkes Bay: Phyllis Tichinin 64 6874 7897, phyllis@truehealth.co.nz
 Palmerston North: Susan Galea 646 324 8586, susangalea@hotmail.com, realmilk.co.nz
 South Canterbury: Carol Keelty 03 6866 277, bckeelty@outlook.com & Inez Wilson inezmwilson@xtra.co.nz
 Tauranga: Natasha Lucas 02 1047 1501, nlucas@mykolab.ch
 Wellington: Ian Gregson 64 04 934 6366 wapf@frot.co.nz & Deb Gully (04) 934 6366, deb@frot.co.nz, wapfwellington.org.nz
 NZ Resource List: Ian Gregson and Deb Gully, frot.co.nz/wapf/resources.htm
- NORWAY
 Hedmark (Stange): Sindre Vaernes & Tom Olsen 4847 1030, sindre.vaernes@gmail.com
- PERU
 Lima: Verónica Belli Obando & Úrsula Sandoval Portella 511 451 1316, veronicabelli90@gmail.com

International Chapters

PHILIPPINES

Metro Manila: Tess Young 63 915 646 253, livingfoodsbc@gmail.com, chapters.westonaprice.org/metromanila/, livingfoodsbuyingclub.com

POLAND

Pokrzydowo: Adam Smiarowski 0 11 48 606 209914, szkolaryciska@gmail.com

PORTUGAL

Algarve: Julia de Jesus Palma (00351) 912320437, julia@onlinedesign.info
Lisboa: Duarte Cardoso da Costa Martins 00351 91 772 57 55, duarteccmartins@gmail.com
Porto: Hugo Dunkel Matos Couto e Neiva 00 351 914338761, hugo.dunkel@gmail.com

PUERTO RICO

Caguas: Rocio Lopez, MD (787) 502-0607, lopezrmd@gmail.com

SCOTLAND – see United Kingdom

SINGAPORE

Singapore: Alexander Mearns westonpricesingapore@gmail.com

SLOVAKIA

Šada and Dunajská Streda: Monika Jarosiova 0903 887704, jarosi.monika@centrum.sk

SPAIN

Girona/Baix Montseny: Monica Fernandez Perea 34 692468952, info@espaiseny.cat
Madrid: Ana de Azcarate 0034-616821039, aquilina68@yahoo.com
Malaga: James Fehr & Craig Chanda, 0034 622506214, jamiefehr@fastmail.es

SWEDEN

Stockholm: Johanna Gunnarsson 46 76 040 7927, johanna@stockholmnt.se

SWITZERLAND

Bern: Judith Mudrak rohmilchjudith@gmail.com

UNITED KINGDOM

ENGLAND

Cheshire: Silvie Hall & Carol Dines, 01270 873322, wapf.cheshire@outlook.com, facebook.com/WAPF.Cheshire?ref=hl
Derby: Russell Davison 01332 737216, Russell@davisonproperty.co.uk
Herefordshire: Sally Dean 01432 840353, sally@aspenhouse.net
Kent: Keli Herriott-Sadler 01732 354 527, keli@herriott-sadler.co.uk
London: Philip Ridley philridley@hushmail.com, westonaprice.london
Wise Traditions London, Festival for Traditional Nutrition Phil Ridley 01442 384451, westonaprice.london@gmail.com, westonaprice.org/london, meetup.com/westonaprice-london
East London: Deborah Syrett 020 8518 8356, medical.herbalist@ntlworld.com
Nottingham, East Midlands: Claire Jessica Taylor 0044 79 8046 2874, clairebackhouse78@gmail.com
Surrey and Hampshire: Diana Boskma 44 1252 510 935, dboskma@gmail.com

WALES

North Wales: Ben Pratt 07952 555811, ben.naturafood@gmail.com



WAPF AT THE BERLIN, GERMANY PALEO CONVENTION

Katalin N Kokavecz, chapter leader from Budapest, Hungary, organized a WAPF booth at the Paleo Convention taking place in Berlin, Germany in September, 2017. LEFT; Hugo Dunkel, chapter leader from Porto, Portugal, Katalin N Kokavecz, chapter leader from Budapest, Hungary, Katalin's son and future WAPF member Lorand Kokavecz (age eleven), and Duarte Martins, chapter leader from Lisbon, Portugal. RIGHT: Attendees peruse WAPF material.

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

CA

Desert Farms - Camel Milk | Nature's most wholesome dairy beverage! **We ship.** Order online at desertfarms.com or call (310) 430-2096 to place your order. \$20 special discount on ALL orders, use discount code: WAPE.

CO

Meadow Maid Foods, 100% grass-fed, grass-finished beef. On pasture year-round at the family ranch in WY. Production practices detailed on our website. Custom beef, Farmers markets, and food co-op in Fort Collins. meadowmaidfoods.com, (307) 534-2289.

Rafter W Ranch, Colorado. A family-owned ranch in Simla, practicing regenerative agriculture, bringing you nutrient-dense food. Our animals are 100% certified American Grass-fed and are 30-day dry-aged beef along with pasture-raised lamb. Bones, broth, and offal and other choice cuts of beef available. We also offer pasture-raised broiler chickens. Bulk order and/or pieces. Several pick-up locations along the Front Range or at the ranch. (719) 541-1002, www.rafterwrench.net

IN

100% grass-fed raw butter, cheese, and other dairy products, **will ship.** Also available in Indiana only: 100% grass-fed beef, veal and whey/skim fed pork. Check out our online store for other local products available at <https://thefarmconnection.grazecart.com>. Alan & Mary Yegerlehner, Clay City, Indiana (812) 939-3027.

Hopeful Farms raises 100% grass-fed beef, pastured chicken and turkey, and pastured pork. Our animals are not fed hormones, antibiotics, GMOs or soy. **Shipping** and farm pickup are available. Visit our website: fryfarmscoop.com or contact us at fryfarmscoop@gmail.com.

MA

Many Hands Organic Farm in Barre, MA. All products certified organic and free range. Lard, pork, chicken and beef stocks, pork, chicken, turkey and 26 weeks of CSA. No till, nutrient dense. www.mhof.net; (978) 355-2853; farm@mhof.net.

MD

100% soy-free chicken, eggs, pork and beef. Chicken livers, chicken feet and heads. Bacon and sausage. Raw pet milk. Raw milk blue and cheddar cheese by cheesemaker Sally Fallon Morell. **Will ship** whole cheese wheels. Southern Maryland, within 1 hour of downtown Annapolis and Washington, DC.

Saturday farm tours. Store open Thursday to Saturday 10-6 or by appointment. P. A. Bowen Farmstead, 15701 Doctor Bowen Road, Brandywine, MD. (301) 579-2727, pabowenfarmstead.com.

Nick's Organic Farm. Grass-fed beef (no grain ever), free range eggs, pastured chicken and turkey. Liver, organ meats, and bones. Organic poultry feed. Pick up in Potomac or Buckeystown. Our livestock are rotated to fresh pastures on our fertile organic soils and receive organic feed, no hormones, antibiotics, or animal parts. We raise our cows 100% grass-fed. We raise our hay, raise and grind our own grain into poultry feed and process our poultry. Quality organic products since 1979. (301) 983-2167, nicksorganicfarm@comcast.net, nicksorganicfarm.com.

MI

Creswick Farms. Dedicated to raising healthy, happy animals—lovingly cared for just as Mother Nature intended—which provide high-energy, nutritious and delicious food sources for health-conscious individuals. No antibiotics, steroids or GMOs ever fed to our animals! (616) 837-9226, CreswickFarms.com.

Pastured Pork, Chicken, Beef and Lamb sold from farm or delivered monthly to your home from Grand Rapids to Cadillac; Muskegon to Mt Pleasant. No GMOs, no soy and no chemicals. Come visit the farm! Provision Family Farms, White Cloud. (231) 689-0457, provisionfamilyfarms@gmail.com, www.provisionfamilyfarms.com/shop-the-farm.html.

MN

Farm On Wheels offers animals raised green grass-fed & certified organic. Nutrient-dense beef, lamb, chicken, eggs, turkey, goose, duck, and pork. No corn or soy. Farmers Market year around in St. Paul, Prior Lake, Northfield. Linda (507) 789-6679, farmonwheels.net, farm_on_wheels@live.com.

MS

Nature's Gourmet Farm raises nutrient dense grass-fed beef, pastured pork, and pastured broilers. Animals are hormone, antibiotic, and GMO free! We service south Mississippi, Alabama and Louisiana. For details and order information visit our website at www.naturesgourmetfarm.com.

NY

MYS-permitted raw milk on Long Island, from grass-fed pastured Jersey cows. Visitors welcome. 5793 Sound Ave, Riverhead, NY 11901. (631) 722-4241.

Raw milk, cheese, butter, etc. from 100% grass-fed Jersey cows. 100% grass-fed beef and lamb. Pastured pork, chicken and turkey (soy-free options available). Fermented veggies and more! Have dropsites in select areas or **can ship.** Call for details. Pleasant Pastures (717) 768-3437.

OH

Non-GMO pastured pork & chicken, eggs and grass-fed beef. Also 100% A-2, A-2 Guernsey milk, cream and cheese. **Will ship** Guernsey Cheddar plus Goat Gouda and Cheddar. For more details call (330) 359-2129 or email thefoodbarn.veggies@gmail.com. Wholesome Valley Farm, Wilmot, OH.

Sugartree Ridge Grassfed. Openings in 100% grassfed herdshare with nine delivery sites in the Cincinnati area. No grain, no silage. Sixteen cows (cross between Jerseys, Guernseys, Brown Swiss and British White) grazed year-round on sixty acres rotating through thirty paddocks (which are allowed to grow for sixty days between grazings and are spread with organic, Albrecht-based mineral supplements). Nutrient-dense milk, family-friendly farming and holistic stewardship. 6851 Fair Ridge Road, Hillsboro, OH 45133. (513) 207-7998.

OR

Grass-based biodynamic raw milk dairy offering Jersey Hi-creamline milk, cream, golden butter, cottage cheese and aged cheeses. Soy-free veal and pork seasonally. On farm sales and membership club. **Can ship.** Sherry and Walt (541) 267-0699.

PA

RAW CHEESES made from milk from our herd of 100% grassfed cows on our organically managed farms. Prices start at \$5.25/lb. and also ground beef at \$4.25/lb. **WE SHIP.** Oberholtzer at Hilltop Meadow Farm. (570) 345-3305.

Raw milk cheese from our grass-fed Jerseys, made on our family farm with Celtic sea salt. No grain feed. Also grass-fed beef and pastured chickens, turkeys and eggs. All soy-free, no hormones or synthetics. On-farm sales, **will ship cheese.** Wil-Ar Farm, Newville, PA (717) 776-6552.

Wentworth Dairy. Grass-fed raw milk, raw milk cheese, free-range eggs, pastured pork, grass-fed beef. We are located 8 miles from MD state line. Family farm, all natural grass-based, Ayrshire and Jersey cows. Rob & Bonnie Wentworth, 1026 River Road, Quarryville, PA 17566, (717) 548-3896.

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

VA

Salatin family's Polyface Farm has salad bar beef, piggyator pork, pastured chickens, turkeys and eggs, and forage-based rabbits. Near Staunton. Some delivery available. Call (540) 885-3590 or (540) 887-8194.

Raw milk, cheese, butter, etc. from 100% grass-fed Jersey cows. 100% grass-fed beef and lamb. Pastured pork, chicken and turkey (soy-free options available). Fermented vegetables and more! Have dropships in select areas or **can ship**. Call for details. Pleasant Pastures (717) 768-3437.

WY

Meadow Maid Foods, 100% grass-fed, grass-finished beef. On pasture year-round at the family ranch in Goshen County. Production practices detailed on our website. Custom beef, Cheyenne farmers markets and local delivery. (307) 534-2289, meadowmaidfoods.com!

HEALTHY PRODUCTS

FLUORIDE FREE AMERICA Mission: Enhancing communication between individuals and organizations to exchange information and create strategies to end water fluoridation. facebook.com/waterliberty * Twitter.com/FluorideFreeAmerica/waterliberty * 70% of Americans are fluoridated. JOIN IN THE EFFORT TO END FLUORIDATION - You have the right to safe drinking water.

TRADITIONAL HEALTH FIRST. Offering all Green Pasture's products including Blue Ice Fermented Cod Liver - Fermented Skate Liver Oil - X Factor Gold High Vitamin Butter Oil both in liquid and capsules, Infused (with FCLO) Coconut Oil and Pure Indian Foods Ghee. Prescript Assist Probiotics, free shipping. Email or call for information about shipping, referrals, auto resupply, and any general questions or information about these superfood products. Visit THF on Facebook. To order: email John@TraditionalHealthFirst.com or call John Delmolino, Amherst, MA. (413) 210-4445.

CRAFTS

Beautiful crafts by local artists. Keep your gift-giving dollars in the USA. Alpaca blankets, socks and yarn; hand painted decorations, paintings by award-winning artist David Zippi; handmade quilts. Exclusive source of Nourishing Traditions posters. Saturday farm tours. Store open Thurs-Sat 10-6 or by appointment. P.A. Bowen Farmstead, 15701 Doctor Bowen Road, Brandywine, MD. (301) 579-2727, pabowenfarmstead.com.

Natural insect control. Bat House kits. Easy assembly. \$30.00. 2, or more, \$25.00 each. Also beautiful, handcrafted, heirloom toys. Train made with 4 different hardwoods. \$40.00. Cherry pull duck or rabbit. \$28.00. All post paid. Many others. Wholesale to gift shops. Keim's Wood Handcrafts, 455 Argersinger Rd Fultonville, NY 12072.

DVDS

DVD "Nourishing Our Children" recently launched a DVD that may be used for one's self-education or to present to an audience. You will learn how to nourish rather than merely feed your family. nourishingourchildren.org/DVD-Wise.html Free shipping!

EMPLOYMENT OPPORTUNITIES

A lovely, well appointed cottage, gardens, pool, labyrinth and more awaits a motivated couple interested in sustainable healthy living and exploring New Zealand. See woof website for how this works. For more information, email Lyn at 1gardenstone1@gmail.com.

A wonderful WAPF-inspired fine dining restaurant is now recruiting talent. Farmageddon filmmaker, Kristin Canty is hiring for her new venture, Woods Hill Table, a traditional foods restaurant in her home town of Concord, MA. To our knowledge, this is the first-ever WAPF inspired fine dining restaurant. From frying in beef tallow, soaking grains, and raw fermented foods to serving kombucha flavor of the day on tap, Kristin is implementing the WAPF dietary guidelines and changing restaurant history. If you'd like to be a part of this exciting culinary project, her Concord Restaurant Group is looking for a service manager, servers, reservationists, chefs and line cooks. Contact Kristin@woods hilltable.com; 24 Commonwealth Ave, Concord, MA, 01742; woodshilltable.com, jobs@woodshilltable.com, (978) 369-6300.

FARM FAMILY OR INDIVIDUAL needed to help set up and live on pristine 164 acre former raw dairy farm and cheese making facility in SW Washington state. If interested, please send email to Lawren@wellaroo.com with subject line: "dairy farm".

Successful retiring farmer seeking paid apprenticeship. Rural S. Oregon Cascades 100-ac. forested/9-ac. pastured organic beef main operation. Very established customer base. Seek mature, responsible, teachable person with desire/willingness to learn. Basic Ag/

Husbandry is necessary but the willingness to learn is most important. Ongoing projects in construction, soil/pasture management, agronomy, large composting, husbandry, agriculture, irrigation, gardening, forest management, heavy equipment, mechanics, welding, etc. We try to do it all here. Looking for long-term potential partnership. Opportunity of a lifetime. inforoc@wildblue.net.

We are seeking a middle aged couple to move into our log home and care for our small herd of dairy cattle. Knowledge of organic farming, animals and cheese making helpful. Does this look like something you could enjoy? Come give it a try! - Commit to 6 months or longer if both couples find a good fit. Couple mid 60's due to health reasons need a sabbatical from our new and fast growing A2 raw milk micro-dairy in Wyoming. For more information send email w/ resume diamondsretreat@gmail.com; diamondsretreat.com.

HEALING ARTS

DIAGNOSIS+NUTRITION HEALTH COACH TRAINING for health care professionals and the general public; this "no pressures" integrative program is available online and in-person. Learn diagnosis techniques to create the best diet/lifestyle program for yourself and others. John Kozinski MEA, (413) 623-5925 www.macrobiotoic.com.

GLUTEN OR DAIRY INTOLERANT? Trying to heal your gut without special diets? Or have an allergy to dust, pollen, pets? Learn the 5 Biological Laws discovered by a doctor 36 years ago. Get healthy faster. Former WAPF CL and speaker, Andi Locke Mears, teaches you how. www.biohealthworksinstitute.com/wapf.

VIROQUA NUTRITION COUNSELING is a traditional foods-based practice in Southwest Wisconsin. Laura Poe, RD is a holistic dietitian, culinary instructor and WAPF member. In-person or distance consultations available. Email Laura at viroquanutritioncounseling@gmail.com for more information or to schedule an appointment. Initial consults are \$100, \$75 for follow-ups.

HOMES & LAND SALE

BUSINESS AND FARM IN OREGON LOOKING FOR A BUYER AND OR INVESTORS. The farm is a turn key operation. It has a 20 cow 30+ heifer herd share dairy, with over 100 members. Includes cheese room, greenhouse, underground fodder container

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

and green room, smaller greenhouse, and orchard that haven't been completely developed for revenue. 30 head of ewes and their lambs for milking on one side of the parlor. A large walk-in freezer and milk equipment for milking sheep and cows. Deliveries to Portland, Medford, Ashland, Dalles, Bend, Redmond, and on-farm sales. See pictures windyacresdairy.com. Call (541) 613-5239.

CANADIAN FARM FOR SALE: barn is new construction, state-of-the-art passive solar on south-facing slope in temperate zone. 59 acres with new wall & drive just 5 kilometers from year-round farmers market. Canada expedites work permits for farmers (got mine in 2 months) and good stewardship grants from province available to U.S. citizens. Email: rose@masoncreekfarm.com listing: <https://www.tradewindsrealty.com/listing.php?id=9997>.

FULL SCALE KITCHEN with space for café and grocer. Inside/Outside dining. Located in the historical horse area of Aiken, South Carolina. Strong WAPF Chapter with supportive market. \$215,000 Rebecca Winans (803-634-1717) or 1280rebecca@gmail.com RAW Milk retail sales state. Turn Key.

HOUSE RENTAL/SHARE

Looking for a place to rent? I have a lower level furnished apartment in a sustainable single family home in Reston for rent. I've been following the Weston A. Price dietary guidelines since 2006, cook all my own food, and purchase food from Miller's Organic Farm. This is a clean, green house with wood and tile floors, 8 sun tunnels, 3 skylights, 2 woodstoves, and a yard that is a

certified wildlife habitat and is Audubon at Home certified. This is for one person only, no pets, all utilities are included, shared laundry room, no lease. If you are interested in learning more please contact me. Sgboots232@gmail.com

ROOM(S) RENTAL/HOUSE SHARE. Google: Edgewater Farm & B&B, Phippsburg, Maine 04562. Many beaches (Popham), woodland walks. Indoor Pool. Organic veggies, fruit, herbs, flowers: Learn/share gardening & cooking. Starts: Oct '17 on ...W: ewfbb.com E: ewfbb@comcast.net Bill & Carol Emerson (877) 389-1322.

SEEKING SAFE SANCTUARY Longtime WAPF supporter and pioneer in the ancestral foods marketplace seeks housing in low-EMF environment, no mold. Separate or shared housing, long-term housesitting/caretaker position, or other alternatives, including land for constructing natural dwelling. Northern California preferred. Please contact: mariebishop@outlook.com or (415) 868-9622.

SERVICES

JOHN DELMOLINO PAINTING. Quality residential interior painting for the discriminating home owner. Historical restoration a specialty. Outstanding enamel trim work is accomplished with real Dutch paint from Fine Paints of Europe. Twelve years of full time year round experience. Call for a consultation about your next painting project. Remember, there is more to painting than what is in the can! Serving Western Massachusetts. PAINT8.com JOHN Delmolino, Amherst, MA (413) 210-4445.

TRAVEL/LODGING

EDUCATION/LODGING - McNutt FARM II SCHOOL, 6120 Cutler Lake Road, Blue Rock, Ohio, 43720 (740) 674-4555. We welcome you by reservation and deposit, on-farm lodging, over night, weekend or week. Private quarters/equipped kitchen. Also available on the farm: grass-fed beef, chicken, lamb, duck and free-range eggs and pet lodging. (740) 297-3021, (740) 704-8184. mcnutfarm.com.

Farm stay/vacation rental in beautiful Three Rivers, California—just outside Sequoia National Park, 3-4 hours from greater LA/SF Bay area. WAPF members for ten years. We raise chickens, sheep, cows and pigs. Grass fed meat/eggs available. hornmountainranch.com.

SOUTHERN MARYLAND - Farm stay at P A Bowen Farmstead. Living room with kitchenette, 1 bedroom, plus cots, to sleep 4, even 6 total. Barbeque, pool, private entrance. Tree house for children. Walks, farm activities. 1 hour from downtown Washington, DC and Annapolis. Listed at AirBNB or contact Lindsay at farmstay@pabowenfarmstead.com. 15701 Doctor Bowen Rd, Brandywine, MD.

TRAVEL



TRADITIONS OF RURAL POLAND STUDY TOUR

Learn traditional dairying, hay collecting, weaving, gardening, cooking, baking and ecological living in the beautiful village of Potoczec, Poland. Family and group accommodation.

International Coalition
to Protect the Polish Countryside.

www.icppc.pl

Contact biuro@icppc.pl, (48) 33 8797 114

Join the Annual Educational WAP Swiss Tour 2018!!! with Swiss Native Judith Mudrak

**Do you enjoy learning, walking and good company
with like minded WAP folks?**

Then come along for 15 days—Thursday July 19—Thursday August 2nd 2018
Many WAPers age 7 to 86 have already joined—since 2006 !!!

Downpayment due by Wednesday March 21, 2018
For further details on inland fee (2055.00)

Please contact: Judith Mudrak at

reversemydisease@gmail.com or 609 859 3828 EST.

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

PASTURE-RAISED PRODUCTS

Beiler Family Farm

of Pennsylvania

Certified Organic

Dairy, Beef, Pork, Chicken and Lamb
Great tasting and good for you.

Direct from our farm to
delivery sites in Jersey, Manhattan,
Brooklyn and Queens

myrealfoods.com/bff
(814) 422-8930



Local - Grass Fed - Beyond Organic
Nutrient Dense Whole Foods

Your Direct Connection to the Farmer
*Striving to bring real honest food
back to the American table*

Know your farmer and where your
food comes from



Pasture Raised Meat: (NO growth hormones or antibiotics)
Beef - (grass fed)
Pork - Bacon and Sausages (nitrate free, no MSG)
Chicken - (free range and pastured)
Bison - (grass fed) • **Lamb** - (grass fed) • **Turkey** - (pastured)

Dairy (NO growth hormones & antibiotics)

Specialty Items: Organic Produce • Pastured Eggs & Cheese
• Gluten Free Products • Michigan Products • Sustainable Foods

Wild Caught Great Lakes Fish Filets: (All High in Omega-3-Fat)
Whitefish • Lake Trout • Walleye • Yellow Perch • Salmon

21202 Pontiac Trail • South Lyon, MI 48178
(734) 757-4209

www.greenerpasturesmarket.com

Monday - Friday 10 am - 7 pm • Saturday - 10 am - 5 pm • Sunday - 11 am - 4 pm

Eggs the way it's Meant to be



Introducing:

The Ultimate Egg

Mobile Pastured
SOY FREE
ORGANIC EGGS



Distributed by: Meant to be Natural Food, Spring Valley NY 10977 | (845) 535-1354



Raw milk blue and Cheddar
cheese by cheesemaker
Sally Fallon Morell.

Raw Pet Milk
100% soy-free chicken,
eggs, pork, beef and veal.

Within one hour of downtown
Annapolis and Washington, DC.
Saturday farm tours.
Will ship full cheese wheels.

Store open Thurs-Sat 10-6
or by appointment.
301-579-2727

15701 Doctor Bowen Road
Village of Aquasco
Brandywine, Maryland 20613
www.PABowenFarmstead.com



Drop off locations along
the front range Colorado
Springs to Loveland
30 day dry-aged
grass-finished beef,
eggs, poultry and lamb
Bulk and piece orders

Healthy land, Healthy food, Healthy families
(719) 541-1002 www.rafterwranch.net

Facebook: Rafter W Ranch at Peak View

Certified American Grassfed Association producer

Brookford Farm

250 West Road
Canterbury, NH



- Organic Vegetables
- 100% Grass Fed Beef
- Pasture Raised Pork
- Pasture Raised Chicken and Eggs
- 100% Grass Fed Dairy Products
(raw milk, cheeses, butter, quark, yogurts)
- Lacto-fermented Vegetables
- Organ meats
- Bones

**Custom orders, CSA Shares
year round and Wholesale**

brookfordfarm.com
(603) 742-4084

* Free delivery with custom orders
of \$150 or more within a 90 mile
radius of Canterbury, NH

NorthStar Bison

www.northstarbison.com

100% Grassfed & Finished Beef, Bison & Lamb.
Also carry: Elk, pastured non-GMO Pork,
organic soy-free pasture-raised Chicken & Turkey.
Specialize in: Fresh & Frozen Meat & Organs,
MSG & Nitrate-free processed Meats.

Bone Broth: Bison, Beef, Chicken or Turkey
Order online, mail or fax: 715-234-1305
Toll-free: 888-295-6332

www.northstarbison.com

Life-Enhancing Acres
very high quality 100% grassfed
CHEESE & BUTTER
Beyond ORGANIC!

from Beautiful Jersey Cows
grazing a mixture of
grasses on nutrient-rich soil

WILL SHIP
717-768-7848

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

PASTURE-RAISED PRODUCTS

PLEASANT PASTURES

PRIVATE MEMBERSHIP ASSOCIATION
PHONE: 717-768-3437

Grass-Fed Farm Fresh FOOD

Our Jersey cows are 100% Grass-fed to produce nutrient dense food

OUR OFFERINGS INCLUDE:

- Raw Butter, Cheese & Yogurt
- 11-Strain Cow-Probiotic Drink
- Bone Broth, Meat Pie
- 100% Grass-Fed Beef & Lamb
- Pastured & Soy-free Pork, Chicken, Turkey
- Fermented Drinks & Veggies
- Soap made with Pastured Pork Lard and more...

We serve Buying Clubs and Ship Nationwide

PLEASE CALL 717-768-3437
FOR A MEMBERSHIP FORM
& PRODUCT LIST

Ask for
Winter Butter
Specials



Miller's Organic Farm

PRIVATE MEMBERSHIP ASSOCIATION

648 Millcreek School Road, Bird-In-Hand, PA 17505 • Phone (717) 556-0672

The land where milk and honey flows



Our cows are on a high forage diet and are not fed grain to ensure high quality better tasting and more nourishing food.

grass-fed raw water buffalo, cow, sheep, goat, and camel milk • grass-fed raw butter from cow, sheep, and goat • pork lard, beef and sheep tallow • grass-fed beef, lamb, turkey and soy-free chicken, whey-fed pork • pork sausages and bacon • broth from turkey, fish, chicken, duck, goose, pork, and beef • fermented vegetables including sauerkraut and kim-chee • sprouted breads including sourdough and gluten-free.



PRIVATE CLUB MEMBERS ONLY

Please call for membership contract form and pricelist.



Grass-Fed Beef Sticks & Free-Range Turkey Sticks

NO SUGAR • NO MSG • 100% GLUTEN FREE

www.NICKS-STICKS.com
A Wallace Farms Product



NICK'S STICKS

Healthy Snacks...
shipped to you!

NATURAL FOODS

**Completely Unprocessed, Unfiltered, Unrefined,
Unheated & Utterly Delicious.**



Still contains pollen, propolis, vitamins, live enzymes, trace minerals.

Now available! Fermented Honey

Toll free 800-REAL-RAW (732-5729)
410-675-7233 www.reallyrawhoney.com

Established 2008



BONEBROTH.COM

The FLAVOR CHEF
LOVE IS THE ULTIMATE SPICE®

Short Cook Chicken Meat Broth
(For the GAPS phase 1 protocol)

Domestic Shipping to all states!



ENTER COUPON CODE **WAPF10** WITH YOUR ORDER FOR A 10% DISCOUNT!

Tasty Raw PROBIOTICS

Krauts | Dressings | Tonics



www.jacobsraw.com

SHIPPING IS FREE TO PA, NJ, DE, MD, DC, VA, NY, CT, RI, MA, VT, NH, ME, OH, KY, IN, MI, NC, SC

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

NATURAL FOODS



**Offering Weston A. Price Inspired
— Products For Your Family —**

Fermented Cod Liver Oil,
X-Factor™ Gold Butter Oil,
Coconut Oil & Ghee, Raw Honey,
Manuka Honey, Nick's Beef
Sticks, Sprouted Almonds &
Sprouted Almond Butter, Wild
Alaskan Salmon Jerky, and
other Health Building "Foods"

**Free Priority Mail Shipping
on all orders of \$49 or more
shipped within the USA**

Visit us at:

www.building-health.com

Or call: 1-888-257-8775



ORGANIC EXTRA VIRGIN OLIVE OIL

*Traditional Agriculture, True Natural Food Value Natural
biophenols with proven anti-inflammatory, antioxidant,
cardioprotective, and neuroprotective activity Top 2.5%
phenolic content worldwide*

- Heirloom Mission olive varietal, est. 1912
- Dry farmed; the trees know people more than machines
- High international competition awards annually
- Scientific research reports unique properties for health, new phenol, new health constituent

1 gallon and 5 gallon available Please email or call

Darro and Olivia Grieco • info@BerkeleyOliveGrove.com • 530-533-1814

jovial
inherently good



LOOK TO THE PAST FOR A HEALTHIER FUTURE!

Einkorn is nature's original wheat and the only
wheat that has never been hybridized. We offer:

- Sprouted Einkorn Flour
- Whole Grain Einkorn Flour
- All-Purpose Einkorn Flour
- Einkorn Wheatberries
- Einkorn The Cookbook: Recipes for Nature's Original Wheat

VISIT JOVIALFOODS.COM AND GET 15% OFF
YOUR FIRST ORDER USING CODE **WESTONPRICE**

Pure Indian Foods

Your trusted source of
highest quality, organic
food products.

- Ghee (Grassfed)
- Spiced Ghee (Grassfed)
- Cultured Ghee (Grassfed)
- Coconut Ghee (Grassfed)
- Jaggery (natural sweetener)
- Turmeric
- Indian Spices



www.pureindianfoods.com

1-877-LUV-GHEE (1-877-588-4433)



Gluten-Free Sourdough Breads, Sprouted Cookies, Mixes & Books

Breads use 100% whole grain Teff Flour & organic flavorings

- Fully Fermented Sourdough
- English Muffins
- Muffin Tops
- Dessert Breads
- Sprouted Nuts
- Sprouted Almond Cookies

Free of: Gluten, Dairy, Eggs, Commercial Yeast, Soy, Gums

Order online: www.glutenfreesourdough.com

Order by phone: 508-733-5399

Baja Gold Sea Salt

Solar Dried Unrefined Kosher Sea Salt
Maximum Minerals and Trace Elements
Low Sodium

Created Seasonally from the Sea of Cortez
Naturally Delicious – Taste the Difference

BajaGoldSeaSalt.com 678-232-9064

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

SEAFOOD



LUMMI ISLAND WILD Reefnet Salmon

When you buy Lummi Island Wild seafood, you not only get the highest quality anywhere, but you also support sustainable, solar powered fishing. We offer wholesale pricing to buying clubs on premium wild seafood: Salmon, black cod, halibut, sea scallops and raw caviar.



lummiislandwild.com

Take care of your body.
It's the only place you have to live.

Jim Rohn

WILD FOR SALMON®

Sustainably Harvested in Alaska

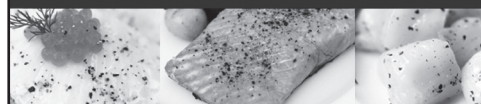
Nourishing your family just got easier.
Buy direct from the fisherman!

- Over 60 seafood options
- Direct from the fisherman pricing
- Flash-frozen for best quality



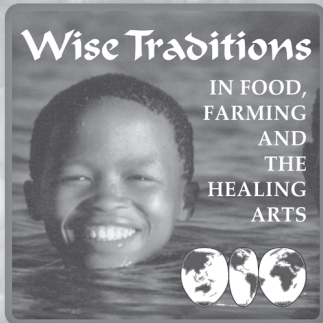
10% off
first order of
Sockeye Salmon
use code
Familyhealth
exp 2/28/18

FROM OUR BOAT TO YOUR TABLE



CALL 570-387-0550 OR VISIT US ONLINE
SHIPPING DIRECT • WILDFORSALMON.COM

Looking for
good health?
You'll love
our podcast!



CRAFTS



NEW! Wise Traditions Alpaca Vest

WAPF Gold Sponsor Villa de Alpacas is proud to offer this super-soft, ultra-warm Alpaca vest to our friends at WAPF! These beautiful, high-quality vests are tailored for an attractive fit, easy care, and a lifetime of wear. Sizes: S-M-L-XL in a variety of natural & hand-dyed colors.

Show Price: \$150 (15% donated to WAPF)

Purchase at the Conference or call Angel
to order yours today! **FAST DELIVERY,**
WE SHIP ANYWHERE!

301-888-CRIA (2742)
MarylandAlpacaFarm.com



The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

SUPPLEMENTS & SUPER FOODS

We Know You Love Raw Milk

...but did you know you only get 1.5% of vital immune & growth factors in raw milk compared to Colostrum-LD™?

- Give your family the advantage of a well balanced and responsive immune system.
- Help them stay healthy all year long.
- Help your family achieve optimal health.

100% Immune & Growth Factors



Colostrum-LD is vital for your family's health, to learn why:

Visit MySovLabs.com or CenterForNutritionalResearch.org for more information

Dr. Johanna Budwig a German Biochemist, studied blood samples looking for any correlation between the blood quality of ill people and healthy people. After studying thousands of blood samples, she discovered that the difference was that healthy people had a higher content of this one vital substance in their blood than those who are ill. This substance can be derived from the diet, but this vital food substance is both scarce and of such low quality that virtually everyone is deficient in it. To learn more about this vital substance and the world's best version of it; go to

SACREDSEEDOILS.COM.

URBAN MOONSHINE

Certified Organic
Digestive Bitters



Made in Vermont

The root of good health
is great digestion!

urbanmoonshine.com

SULFUR FOR HEALTH



1-360-945-0352

1-800-333-2553 PST www.sulfurforhealth.com

- DETOXES CHEMTRAIL TOXINS
- ASSISTS IN MAINTAINING PERFECT PH
- OPTIMAL OXYGENATION BOOSTS ENERGY
- PUSHES OUT TOXINS
- CHELATES HEAVY METALS
- GREAT FOR HAIR, SKIN, NAILS
- REDUCES INFLAMMATION
- SEE INFO UNDER "RESOURCES"
- WHOLESALE & RETAIL

The greatest fine art of the
future will be the making
of a comfortable living
from a small piece of land.

Abraham Lincoln

NATURAL HOPE HERBALS For Your Family's Health



Herbal Formulas, Singles, Salves, Oils, and Teas



- TASTY
- Women's
- Mens
- Immune Health
- Stress & Sleep
- Oral Health
- Cleansing/detox
- Digestive Health
- and much more...

www.Naturalhopeherbals.com • 717.692.5100

We've Got Joel Salatin's Back!

And thousands of farmers & consumers.

MEMBERSHIP BENEFITS

Enjoy unlimited consultation with attorneys about your farm, club or artisan food operation, plus our 24-hour toll-free hotline for legal emergencies.

We protect direct distribution of raw milk and other nutrient-dense foods.



Join today!



Farm-to-Consumer
Legal Defense Fund

8116 Arlington Blvd #263, Falls Church, VA 22042
farmtoconsumer.org 703-208-3276

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

SUPPLEMENTS & SUPER FOODS



- Made by traditional fermentation
- Marine Stewardship Council Certified
- Third party tested for purity
- Boat to Bottle Traceability

Monterey Bay Aquarium
Seafood Watch

www.greenpastureproducts.com



MSC-C-55178

(402) 858-4818

OysterMax[®]

vitality from the deep[®]



100% pure, nutrient dense oyster extract powder from the pristine Atlantic coastal waters of Ireland.

Excellent natural source of organic zinc.
trace elements-vitamins-amino acids.

- Normal Cognitive function.
- Maintains good sexual health.
- Boosts Immune function.
- Supports fertility and reproduction.
- Aids digestive enzyme regulation.
- Normal skin, hair & nails.
- Reduces tiredness and fatigue.



AVAILABLE ON-LINE & THROUGH US AGENTS.
DISTRIBUTORS WANTED. DETAILS ON REQUEST.

www.oystermx.com

www.marinehealthfoods.com



www.RadiantLife.com
888.593.8333

Ancient Wisdom for Modern Health

Nutrient Dense Foods • Superfood Supplements
Healthy Fats • Water & Air Purification
Homemade Baby Formula Kit



Free bottle of desiccated liver capsules
with \$100 minimum order.

Item #102001, Limited time offer.

Use code: WTDL



FROM BIRTH AND BEYOND

Find out more about Bio-Kult Infantis by contacting:
Protexin, Inc.
Call: 786.310.7233
Email: contact@bio-kult.com

Bio-Kult[®]
The experts in probiotics

bio-kult.com

*THIS STATEMENT HAS NOT BEEN EVALUATED BY THE FOOD & DRUG ADMINISTRATION. THE PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE OR PREVENT ANY DISEASE.

What's your gut feeling?

Find out more about Bio-Kult by contacting:
Protexin, Inc

Call:
786.310.7233

Email:
contact@bio-kult.com



Bio-Kult[®]
The experts in probiotics

bio-kult.com

*THIS STATEMENT HAS NOT BEEN EVALUATED BY THE FOOD & DRUG ADMINISTRATION. THE PRODUCT IS NOT INTENDED TO DIAGNOSE, TREAT, CURE OR PREVENT ANY DISEASE.

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

SUPPLEMENTS & SUPER FOODS

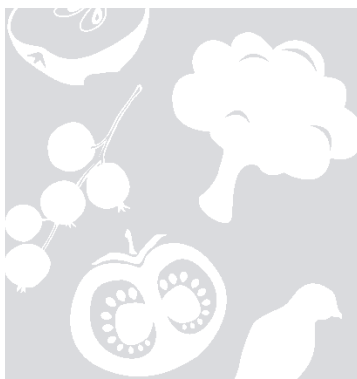
ROSITA COD LIVER OIL

**FRESH
RAW
WILD**



True Norwegian Cod
Add Walkabout Emu Oil for K2

Save 10% on Rosita CLO!
Use Coupon Code: WAPF10
at OnDietAndHealth.com



Do you remember the
GOAT MILK GHEE?

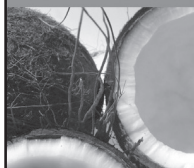
**GET IT
HERE!**



Ghee | Probiotics | Colostrum
1-877-MTCAPRA
mtcapra.com

**Buy Your High Quality, WAPF Recommended
Supplements with Friendly Service & Fast Delivery.**

**SUPER
FOODS**



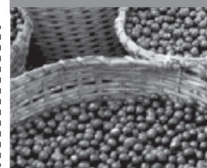
COCONUT OIL • COD LIVER OIL
CHLORELLA • SBO PROBIOTIC
DESICCATED LIVER • SPIRULINA

Save \$5 with Coupon Code: WiseFive

Perfect Supplements

perfect-supplements.com • 1-866-802-3860

**ORGANIC &
100% PURE**



WAPF Local Chapter Leader of South County RI • Gold Sponsors Wise Traditions Conference

HEALTHY PRODUCTS

Kefirko



MILK & WATER KEFIR MAKER

ADDITIONAL 10% OFF ON ALL PRODUCTS

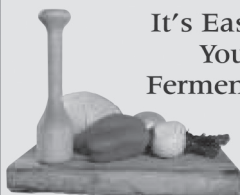
Use Code: **TRADITIONS** at www.kefirko.com

The greatest fine art of the future
will be the making
of a comfortable living
from a small piece of land.

Abraham Lincoln

Kraut Pounder®

It's Easy to Make
Your Own
Fermented Foods!



Perfect for making
sauerkraut, ginger
carrots, kimchee
and more!

www.krautpounder.com

Produced By the Eugene Oregon Chapter, WAPF

Oveylia Skincare

Saving the countryside

Free from: Preservatives,
Alcohol & other Chemicals

-Grass fed Tallow
-Biodynamic Olive Oil
-Fair Trade Shea Butter
& other nourishing oils

Shampoo Bar Body Butter Face Cream Baby Care Lip Balm

oveyliaskincare.com

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

HEALTHY PRODUCTS

SOFT, SPREADABLE, AND EASY TO USE

THE ORIGINAL
VINTAGE TRADITION
New Look,
EVEN BETTER PRODUCT

SEE OUR ARTICLE THAT STARTED IT ALL IN THE WINTER 2012 EDITION OF WISE TRADITIONS!

WWW.VINTAGETRADITION.COM

NEW AND EXCITING TOOTH POWDER

WE MAKE TEETH HAPPY

- All natural ingredients: Unique fine particle size Hydroxyapatite (HAP) powder, Xylitol, Erythritol
- Fluoride-Free, no SLS, no glycerin
- Cleans and brightens teeth
- Helps decrease tooth decay
- Assists to remineralize tooth enamel

- Inhibits tooth sensitivity
- Decreases plaque buildup
- Safe for all ages

HAP PY
Tooth Powder
www.NaturalToothHealth.com

*Lead free & aluminum free unglazed clay



Smart Multi Crock n' Stock Pot

*Natural Unglazed Clay *Top Rated

- **RICH BONE BROTH** is ready in 10 hours.
- **LARGE BATCH** broths, stews, steam & yogurt
- **5 FOOD SETTINGS** plus 12 hour warming
- **DELAY TIMER** food is ready when you are
- **LOW TEMP YOGURT** and grain germinator

Clay seals in the flavors, nutrients & activates enzymes in broths, soups & stews. Alkalize your cooked foods and amplify rich flavors with clay. Low temperature yogurt is healthier in clay.

www.VitaClayChef.com

Visit us online or call (408)329-7392

No Lead • No Aluminum • No Non-stick Chemicals!

Easy • Fast • Top Rated • Safe

Smart Organic Multi-Cooker

Plus Low Temperature Yogurt Maker!

VitaClay makes it all—germinated rice, quinoa, stews, nutritious bone broths, steamed fish or veggies and even yogurt.

Meals are super nourishing and extra flavorful because VitaClay seals in the beneficial nutrients and enzymes with an ancient secret—organic unglazed Zisha Clay. — **DR. MIKE FENSTER** CARDIOLOGIST/AUTHOR/CHEF

www.VitaClayChef.com
Visit us today for **FREE** clay pot recipes!

The Probiotic Jar

The Premium Fermenting System

For Medicinal Quality Ferments
Hand Finished & Inspected
Laboratory Grade Seals
Precision Engineering

Excellent Customer Service
Made in U.S.A.
Prompt Shipping
Reseller Training & Support

Free Recipes
Free Tutorials
Free Videos
Free Quick Start Guide
Online Classes

www.ProbioticJar.com
(907)-694-2284

Living.Powerful.Food.

REBOUNDED EVERYONE?

Harmony • Cleansing • Lymphatic • Potential • Balance • Rehabilitation • Gravity • Tension • Pressure • Blood Flow • Heart Rate • Blood Pressure • Blood Sugar • Blood Cholesterol • Blood Triglycerides • Blood Glucose • Blood Lactate • Blood Ammonia • Blood Urea Nitrogen • Blood Creatinine • Blood Bilirubin • Blood Albumin • Blood Globulin • Blood Hemoglobin • Blood Hematocrit • Blood Hematocrit • Blood Hematocrit

HEALTH circulator

DEALERS WANTED

WAPF MEMBERS BONUS
\$100 OFF

519-455-1468
terry@healthcirculator.com
thehealthcirculator.com

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

INFORMATION

Wish you could hear the conference talks?

Bring the conference into your home.

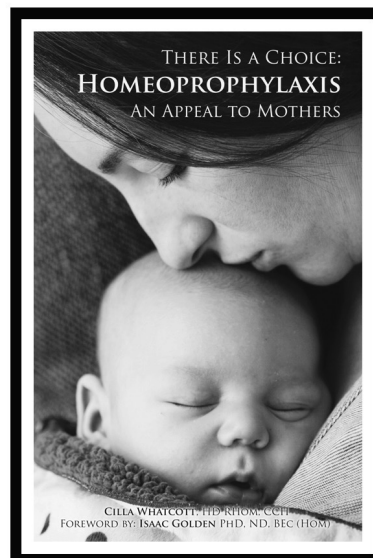
On-demand available for the entire conference.
Enjoy all sessions on-demand or on MP3, CD or DVD.

<http://www.fleetwoodonsite.com/wise>



CILLA WHATCOTT, HD RHOM, CCH

"Besides traditional vaccination, what other choice do we have?"



Available in Paperback
on Amazon.com

WWW.WORLDWIDECHOICE.ORG

YOU ARE WHAT YOU EAT!

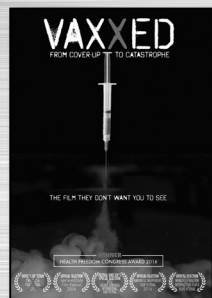


NonGMOShoppingGuide.com ResponsibleTechnology.org

Mercola.com
Take Control of Your Health

The World's #1 Free Natural Health Newsletter

DO VACCINES HAVE RISKS? DECIDE FOR YOURSELF.



\$ 24.95

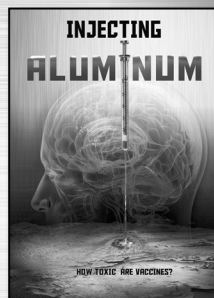
Get **15% OFF** DVDs
and public screening licenses.

Use code **WP15OFF** during checkout.

Go to: www.tinyurl.com/WPoffers

**CINEMA
LIBRE**

(Code must be used to receive discount and only valid
on purchases made at www.tinyurl.com/WPoffers)



\$ 19.95

Iqaluich Niginatuat
Fish That We Eat

I highly recommend that anyone interested in eating fish, amazing wild fermented food, indigenous food preparation or becoming a wild human in general check out this INCREDIBLE book: *Iqaluich Niginatuat*, The Fish that we Eat. The author, Anore Jones, like a modern day Weston Price spent decades among the Inupiat of Northwest Alaska learning their INCREDIBLE food traditions. This book is almost too good to be true – recipes include fermented salmon heads, cod livers with black berries, how to dry salmon eggs, pretty much everything! Much more than a recipe book, this offers a complete picture of how the Inupiat live with the fish in a beautiful way, giving us ideas and methods that may apply to many other bioregions. Absolutely amazing!

Download it for free here:

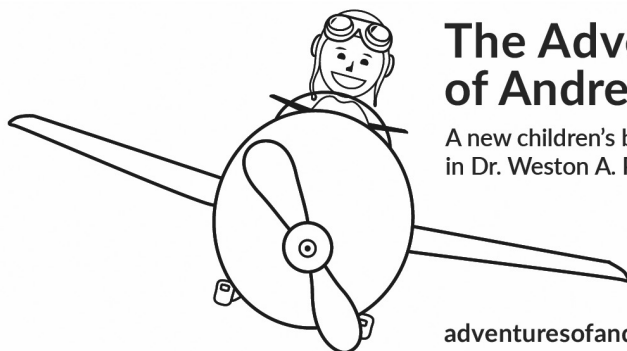
<http://alaska.fws.gov/asm/fisreportdetail.cfm?fisrep=21>

(Scroll down the page to the Northwest Arctic section, you'll find the link there.)

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

INFORMATION

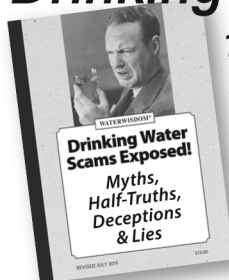


The Adventures of Andrew Price

A new children's book that follows in Dr. Weston A. Price's footsteps.

adventuresofandrewprice.com

Drinking Water Scams Exposed!



Truth about tap water, bottled, filtered, mineral, spring, energized, alkalized, reverse osmosis, distilled and more!

FREE Report
\$15.00 Value

Call now for your **FREE Report & Catalog**

800-874-9028 Ext 728

Waterwise Inc • PO Box 494000 Leesburg FL 34749 • waterwise.com/wise

The New Zealand Journal of NATURAL MEDICINE

Have you seen **THE NEW ZEALAND JOURNAL OF NATURAL MEDICINE** yet?

If you haven't yet read *The NZ Journal of Natural Medicine*, you're missing one of the best health magazines in the world!

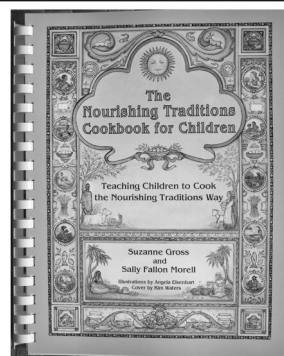
Now in its fourth year of publication, each issue of *The NZ Journal of Natural Medicine* is 100 pages of some of the most useful, often life saving information you won't get from mainstream media, or orthodox, pharmaceutical-based (corporate) medicine.

From authentic cancer breakthroughs, documented vaccine dangers, first class dietary advice, detoxification techniques, and herbal and nutritional medicine – the Journal is totally dedicated to bringing you the news of research and important discoveries that are relevant to your life and the lives of your family.

Well worth a look!

SUBSCRIBE NOW

The NZ Journal of Natural Medicine
www.naturalmedicine.net.nz

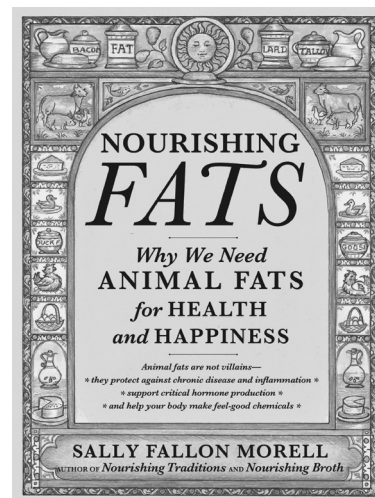


At last! The Nourishing Traditions Cookbook for Children

By Suzanne Gross & Sally Fallon Morell
Beautifully Illustrated by Angela Eisenbart

\$25 (list price \$34) from
newtrendspublishing.com
50% off case orders

Now Available!
Nourishing Fats:
Why We Need Animal Fats
for Health and Happiness
by Sally Fallon Morell
at bookstores and online booksellers.



Stoneware

Made in the USA
100% Lead Free
Guarantee!

For the best baking ever!



WonderMill

Number One
Rated
Grain Mills & Mixers

traditionalcook.com

Chapter Leader - Weston A. Price Foundation®

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

INFORMATION

EPIC QUEST PUBLISHING LLC

Video Production

Catalogs, Brochures, Flyers, Magazines

Producers of the WAPF videos

'Vaccinations'

'Real Milk' and 'Toxic Food Ingredient'

over 40,000 views combined!

For a quote on your printed or video project contact us at epicquest@live.com

ESSENTIAL INFORMATION

For patients and health care practitioners.

The perfect gift for family or friends!

PRICE-POTTINGER NUTRITION FOUNDATION™

Preserving the work of Weston A. Price DDS and other health pioneers. Providing access to accurate information on nutrition. Founded in 1952.

Nutrition and Physical Degeneration

Weston A. Price, DDS

Expanded Edition with New Photos and Text

PUBLISHED BY THE PRICE-POTTINGER NUTRITION FOUNDATION™

NEW EXPANDED EDITION

- ★ FIFTY-SIX NEW PHOTOS
- ★ ENHANCED PHOTO QUALITY
- ★ EXPANDED TEXT

ORDER TODAY **1-800-366-3748** (in US)
619-462-7600 QUANTITY PRICING AVAILABLE

PPNF™ YOUR SOURCE FOR BOOKS, AUDIO & VISUAL
CALL FOR RESOURCE CATALOG OR VISIT www.ppnf.org

—Vital Info for Survival—

Know your Rights or

Lose 'em—Don't Know 'em, can't use 'em

— Best Educational Tool in 200 Years —

100 Calendars 2.63 @ personalized Plus Ship – People ♥ it

1 Cal 18.00; 2-30; 5-52; 10-75; 25-140.00

Freedom Calendar • 704 Edgerton #18 • St. Paul, MN 55130

Phone: (651) 771-5234

There Is Another Way

What do you do if you receive a cancer diagnosis?

In this new, powerful documentary film, *Rethinking Cancer*, five long-term survivors tell why they chose to use nontoxic, biological therapies to overcome serious illness.

DVD available in English, Spanish, French, German, Japanese & Chinese

www.rethinkingcancer.org

Created by Foundation for Advancement in Cancer Therapy (FACT), a non-profit 501(c)(3) educational organization.

A PROJECT OF THE WESTON A. PRICE FOUNDATION

NOURISHING OUR CHILDREN

Timeless principles for supporting learning, behavior and health through optimal nutrition.

EDUCATIONAL MATERIALS

nourishingourchildren.org/education

special offer for *Wise Traditions* readers

CHELSEA GREEN PUBLISHING

the politics and practice of sustainable living

The Art of Fermentation

The Nourishing Homestead

Cheddar

Save 35% on your next online book order

Use the code CGP35 at checkout

www.chelseagreen.com

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

INFORMATION / TRAINING



**OVERWHELMED BY TRADITIONAL COOKING?
WE'LL WALK YOU THROUGH IT. STEP BY STEP.**

FOODWIFERY.COM

ONLINE CLASSES. COMMUNITY. WISDOM. LAUGHTER.

**GLOBAL ...
LOCAL ...
COMMUNITY ...
Get involved!**



**List
EVENTS
FREE
forever**

The NATURAL MEDICINE
Resource & Events Directory

www.natural-medicine.directory

THE GREATER GOOD

If you think you know everything about vaccines... Think Again.

A must see award winning documentary film.

Visit our site to host a screening & join the conversation.

WWW.GREATERGOODMOVIE.ORG



DALLAS-FILM DOC NYC WATERFRONT SIDEWALK LAD MATTERS




THE FUNCTIONAL FERMENTING SEMINAR
Optimized Techniques Resulting in Optimized Health
Living.Powerful.Food.

**Vital Education for Health Practitioners
Discover the Science Behind Fermenting!**

Washington ~ California ~ Colorado ~ Minnesota ~ Ohio ~ Alaska
March ~ April ~ September ~ October ~ November 2018
FermentingSeminar.org (907) 694-2284 
Contact Us for Details and Special WAPF Discounts

Nutritional Therapist Training Program



- » The ONLY Nutrition Certification Program founded on the teachings of Dr. Weston A. Price.
- » The ONLY Nutrition Certification Program accepted as a prerequisite for Dr. Natasha Campbell-McBride's GAPS Practitioner Training.

REGISTER TODAY!



Nutritional Therapy Association
800.918.9798
www.NutritionalTherapy.com



**Farm-to-Consumer
Legal Defense Fund®**

**Have a philosophical objection
to joining an organization
that litigates?**

Get the legal advice you need
and help on contracts with...

**NON-MEMBER
CONSULTING AGREEMENTS**

Obtain qualified legal & operations
advice about direct-to-consumer
sales/distribution of raw milk,
on-farm processed meats,
artisan foods and more.
Renewable agreements \$125/year

**TO APPLY, CONTACT FTCLDF
703-208-FARM (3276)
info@farmtoconsumer.org**

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

TRAINING / EMPLOYMENT

**HAWTHORN
UNIVERSITY**

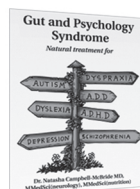


www.hawthornuniversity.org

Online degree and certificate programs
in holistic health and nutrition.

Learn Weston A. Price principles for
traditional diets; healthy fats, real milk,
and time-honored nutrition for fertility,
pregnancy and early childhood.

Admissions: 707-986-4153 x 401
Whitethorn, CA 95589



**2017
GAPS™
Practitioner
Training**
(for professionals only)

CHICAGO (Schaumburg, IL area)

October 14 - 15, 2017 (Sat. & Sun.)

*Video Trainings and a live Q&A session
with Dr. Natasha direct from England!*

Based on her pioneering work
"Gut and Psychology Syndrome" (GAPS Diet)

- Course tuition includes training materials PLUS a Business Starter Pack for your new GAPS practice
- GAPS lunches and snacks will be served each day
- Upon completion of the training you will become a Certified GAPS Practitioner (CGP) allowing you to use the Gut and Psychology Syndrome brands in your practice materials and advertising campaigns.

REGISTRATION IS OPEN

Space is limited!

GAPSTraining@gmail.com

Kristin Canty's Weston Price Inspired Restaurant Now Hiring

Woods Hill Table
24 Commonwealth Ave.
Concord, MA, 01742

www.Woodhilltable.com

jobs@woodhilltable.com

978-369-6300

PRACTITIONERS

**We mourn the loss of Dr. Nicholas Gonzalez.
The work continues.**



Linda L. Isaacs, M.D.

Individualized Nutritional Protocols

www.drLindai.com

gaps info
.com



**Optimal Gut Health through
Real Foods and Nutritional Therapy**

CERTIFIED GAPS PRACTITIONERS
—a division of Biodynamic Wellness—

**Are you a
Registered Dietitian?**

We have created a group to join
dietitians together to help each
other promote **REAL FOOD** nutrition!

**Join the WAPF-RDs
listserve TODAY**

by emailing Jenny Westerkamp, RD
(jennifer.westerkamp@gmail.com)

I look forward to connecting with you!

DR. WESTON A. PRICE LIVES ON HERE

Dr. Felix Liao



**Holistic Mouth for
Whole Body Health**

- Natural & preventative family dentistry
- Optimal Dental-Facial development for kids
- Snoring and sleep apnea appliance therapy
- Treatment for bite-related head-neck-back pain, fatigue and teeth grinding

Call to
Schedule
Your Initial
Consultation
Today

www.WholeHealthDentalCenter.com • 703-385-6425

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

PRACTITIONERS



Dr Tim O'Shea

408.753.9830

www.thedoctorwithin.com

John Kozinski's 
Diagnosis+Nutrition

Health & Healing with Traditional Foods
Classes, Trainings, Lectures
Personal Health Consultations
413.623.5925
www.macrobiotic.com

The spirit cannot endure
the body when overfed,
but, if underfed,
the body cannot
endure the spirit.
St. Francis de Sales



The Center for Natural Healing

- Naturopathy
- Homeopathy
- Thermography
- Natural Foods Store

FREE
Health Assessments
using Zyto Technology!

1721 Lafayette Road, New Enterprise, PA 16664 | 800.858.3288
15 Market Square, Manheim, PA 17545 | 888.665.6871 | **healthbychoice.net**



To bring optimal health options to you, we utilize hair tissue mineral analysis, blood chemistry & hormone saliva testing to evaluate your nutritional needs. We use real food, whole food concentrates & biotherapeutic drainage to assist in restoring you to your vibrant health.

Kim Schuette, CN
Susie Burns, NTP
Anna Penick, NTP
Anna Robertson, NTP

Phone, Skype or Office Consultations
We are Certified GAPS Practitioners

858-259-6000

www.biodynamicwellness.com

optimal health
through foods
and nutritional therapy

WAPF Nutrition + Homeopathy
= Genuine Health

Arrange a Free 15-min. conversation to learn why homeopathy needs to be part of your health strategy. Call and receive a free CD.

More important than ever in today's health care environment!

Author - Lecturer - Consultant

www.joettecalabrese.com Ph: 716 941 1045

 **Joette Calabrese®**



Wise Choices--Healthy Bodies LLC

natural approaches for fertility, women's health, hormonal imbalances (e.g. PMS, PCOS, endometriosis, menstrual issues, etc.), children's health, and digestive system concerns

Vicki Braun, M.S., CGP
Master Fertility Awareness Consultant
Certified GAPS Practitioner
For current telephone #, please email.

Email: **wisechoices50@gmail.com**
www.wisefertilitychoices.com; www.gaps.me



The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

PRACTITIONERS

myPREGNANCY
EXPERT.COM



DR. VERONICA TILDEN

- Learn from a physician
- Get pregnant naturally
- Focus on vibrant health, Nourishing Traditions diet, lifestyle changes and more

Educational Courses

Your Fertile Window

- Identify your fertile days and learn what your menstrual cycles have to teach you

Pregnancy & Nutrition (Coming Soon)

- Everything you need to know about nutrition and fertility

MyPregnancyExpert.com

LIFE VESSEL at Cameron Clinic

Relax and De-stress
Balance and Restore



1928 S. 16th Street, Wilmington, NC
910-342-0999

www.camclinic.com
Cameron Clinic of Oriental Medicine

Your Body's NATIVE STATE

When you were young, your body was in its native, healthy state. As time went on, various factors degraded your health and inhibited your ability to heal. Chronic disease, symptoms, and doctor's visits are the result.

At The Nutritional Healing Center of Ann Arbor, we combine Weston A. Price's food knowledge, along with his friend, Dr. Royal Lee's expertise in whole food supplements to heal the body. These doctors of the 1930's through the 1950's understood healing better than doctors of today. We provide you with the best tools and education to direct your body back to its *native state*.

Join our Long Distance Patient Program to get the results you would like. Email us at intake@thenhcaa.com or call 734.302.7575.



DR. THOMAS COWAN

Board member of the
Weston A. Price Foundation
and author of the
"Ask the Doctor" column
in Wise Traditions.

.....
Consultations by phone from
San Francisco, California.
.....

Dr. Cowan uses nutrition, herbs, anthroposophic and other natural remedies to treat a wide variety of acute and chronic illnesses, including cancer, diabetes, arthritis and chronic fatigue.

Call (415) 334-1010
for an appointment



A GOOD GUT FEELING

Health and vitality through hair mineral analysis. Feel better and gain energy. Take control of your health by balancing your biochemistry through supplementation. Just need a small hair sample to see what's going on with your biochemistry. Healing plans customized to your unique individual needs.

Trevor Miller, Nutritional Consulting
(404) 444-8028

Trevor@agoodgutfeeling.com
www.agoodgutfeeling.com

Maribel M. Vann, DDS

MINIMALLY INVASIVE & AGE REVERSING DENTISTRY
TMJ DISORDER TREATMENT

WITH OVER 30 YEARS OF EXPERIENCE, DR. VANN'S PRACTICE IS CENTERED ON THE ORAL-SYSTEMIC CONNECTION AND ORAL BATERIA ASSESMENTS TO HELP PATIENTS KNOW THE CURRENT LEVEL OF THE HEALTH OF THEIR MOUTHS.

I ALSO TREAT THE
FOLLOWING SYMPTOMS
WITH THE ADVANCE
LIGHTWIRE FUCTIONAL

APPLIANCES:

HEADACHES
VERTIGO & DIZZINESS
NECK & LOW BACK PAIN
TEETH GRINDING &
CLENCHING
SLEEP APNEA
AIRWAY PROBLEMS
TMJ PROBLEMS
SNORING



3025 HAMAKER COURT
SUITE 402
FAIRFAX, VA 22031
(703) 204-1555
www.drmaribelvann.com
drmaribelvann@gmail.com

The Shop Heard 'Round the World

Dedicated to Helping the Consumer Obtain Nutrient-Dense Foods and Accurate Nutrition Information

ADVERTISING IN WISE TRADITIONS

Name of Farm/Company: _____

Contact Person: _____

Address: _____

City: _____ State: _____ Zip: _____ Country: _____

Phone: _____ Fax: _____ Email: _____

Website: _____

DEADLINES: Spring Feb. 20th, Summer May 20th, Fall Aug. 20th, Winter Nov. 20th

Payment method: _____ Check (Payable to WAPF) _____ Visa _____ Mastercard

Credit Card: Visa/MC _____ Expiration: (____/____) \$ _____

Copy this page and mail/fax to: The Weston A. Price Foundation Fax (202) 363-4396

4200 Wisconsin Avenue, NW, PMB #106-380 Washington, DC 20016

Please submit classified ad copy, advertisement graphics, questions and payments to: info@westonaprice.org, (202) 363-4394.

CLASSIFIED

ADVERTISEMENTS

TEXT ONLY,

BY STATE & CATEGORY

\$40 per year for 40 words

MEDIUM COLUMN

2" tall by 2.5" wide

\$200 per year, 4 insertions.

(\$240 for non-members)

DESIGN Please do not submit images smaller than 500k as they will not print well. Files should be grayscale tiff or press quality pdf/eps minimum 300 dpi. There is an additional fee of \$50 for us to design your advertisement.

TALL COLUMN

4" tall by 2.5" wide

\$360 per year,

4 insertions.

(\$400 for non-members)

WIDE COLUMN

2" tall by 4.5" wide

\$360 per year, 4 insertions.

(\$400 for non-members)

The Weston A. Price Foundation reserves the right to refuse advertising space to anyone. We do not accept ads for coffee, tea, chocolate, hemp (as a food) or protein powders, nor products offered by Multi-level Marketing Companies.

Membership

NEW OR RENEWAL

Yes! I would like to become a member or renew my membership in the Weston A. Price Foundation and benefit from the timely information in **Wise Traditions**, the Foundation's quarterly magazine!

_____ Regular membership \$40
_____ International membership \$50
_____ Reduced membership (financial hardship) \$25

Yes! I would like to support the work of the Weston A. Price Foundation with an additional donation.

_____ \$10 _____ \$25 _____ \$50 _____ \$100
_____ \$250 _____ \$500 _____ \$1,000 _____ \$2,500
_____ \$5,000 _____ \$10,000 _____ other \$ _____

Yes! Count me in! I would like to help spread the word!

Please send me _____ copies of the Weston A. Price Foundation informational brochure at \$1.00 each, so I can pass them along to my family, friends and colleagues, and be true to Dr. Price's dying words:

"You teach, you teach, you teach!"

(Health professionals are encouraged to provide this brochure to their patients.)

Yes! I would like to provide my family and friends with the gift of membership in the Weston A. Price Foundation.

(Please attach information on gift memberships.)

_____ Regular gift membership(s) \$40
_____ Canadian and overseas gift membership(s) \$50

Yes! _____ Please send me details about starting a Weston A. Price Foundation local chapter in my community.

I'm enclosing \$ _____ for brochures and \$ _____ for _____ annual membership(s), a total of \$ _____

Payment method: _____ Check or money order (Please do not send cash) _____ Mastercard _____ Visa

Card Number: _____ Expiration Date: _____

Name (Mr)(Mrs)(Mr&Mrs)(Ms)(Miss)(Dr): _____

Signature: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

Please copy or remove this page and fax or mail to

The Weston A. Price Foundation

PMB #106-380 4200 Wisconsin Avenue, NW Washington, DC 20016

FAX: 202-363-4396

TELEPHONE: 202-363-4394