







IN FOOD, FARMING AND THE HEALING ARTS A PUBLICATION OF THE WESTON A. PRICE FOUNDATION®



Volume 20 Number 2

Education • Research • Activism www.westonaprice.org



Summer 2019

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Wise Traditions





WiseTraditions

in Food, Farming and the Healing Arts Volume 20 Number 2 Summer 2019

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The Weston A. Price Foundation is a nonprofit, tax-exempt charity founded in 1999 to disseminate the research of nutrition pioneer Weston A. Price, DDS, whose studies of isolated nonindustrialized peoples established the parameters of human health and determined the optimum characteristics of human diets. Dr. Price's research demonstrated that men and women achieve perfect physical form and perfect health, generation after generation, only when they consume nutrient-dense whole foods and the vital fat-soluble activators found exclusively in animal fats.

The Foundation is dedicated to restoring nutrientdense foods to the American diet through education, research and activism and supports a number of movements that contribute to this objective, including accurate nutrition instruction, organic and biodynamic farming, pasture-feeding of livestock, community-supported farms, honest and informative labeling, prepared parenting and nurturing therapies. Specific goals include establishment of universal access to clean, certified raw milk and a ban on the use of soy-based infant formula.

The Foundation seeks to establish a laboratory to test nutrient content of foods, particularly butter produced under various conditions; to conduct research into the "X" Factor, discovered by Dr. Price; and to determine the effects of traditional preparation methods on nutrient content and availability in whole foods.

The board and membership of the Weston A. Price Foundation stand united in the belief that modern technology should be harnessed as a servant to the wise and nurturing traditions of our ancestors rather than used as a force destructive to the environment and human health; and that science and knowledge can validate those traditions.

The Weston A. Price Foundation is supported by membership dues and private donations and receives no funding from the meat or dairy industries.



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President's Message

"May you live in interesting times" is said to be a Chinese expression, a blessing or a curse depending on your point of view. Unfortunately, the times we are living in are getting just a little too interesting, with the elimination of the religious exemption to vaccinations this year in Maine and New York—following California's removal of the philosophical and religious exemptions in 2015.

While we at the Weston A. Price Foundation like to emphasize the positive, it's hard to see a solution if you live in those states and want to protect your children. The choices are narrowing down to home school or move—and even requiring vaccinations for home schoolers may be in the sights of the vaccinators.

While the recent votes in Maine and New York are bad news indeed, they have not discouraged us from redoubling our efforts. Let's be thankful we did have some victories this year—staving off attempts to remove religious and philosophical exemptions in Alabama, Arizona and Minnesota. Many of our members have been extremely active in these efforts; for example, in Minnesota WAPF chapter leaders purchased copies of Neil Z. Miller's recent book, Review of Critical Vaccine Studies, and gave a copy to every legislator. See page 86 for a review of our victories and setbacks so far in 2019. Also, see Kendall Nelson's excellent article on the sordid history of polio vaccinations on page 77.

On a more positive note, we are gearing up for another great annual conference, this time in Allan, Texas, north of Dallas. The location is a brand new hotel that is offering great prices for us allowing us to offer you lower registration fees than last year, and lower the overall cost thanks to a more reasonable room rate. We will have our additional activities: a pre-conference raw milk fundraiser reception on Thursday and our annual guided farm visit on Monday. As usual the exhibit hall is free and open to the public.

In addition to perennial favorite speakers, new faces this year include David Diamond, PhD, Becky Plotner, ND, Robert Quinn, Timothy Weeks, DC, Peter Ballerstedt, PhD, Joseph Tarantolo, MD, Jerry Tenant, MD, Esther Gokhale, Janin Farzen, Ben Edwards, MD, Pam Schoenfeld, RD and Karen Randall, DO.

No other health conference offers participants such delicious meals, along with so many interesting speakers and exhibits at such a reasonable rate. Early bird rates apply and we also have drawings for early registrants, so register early.

For details, see pages 14-17, or visit wisetraditions.org. We are looking forward to seeing you there!



According to a new study, children with autism tend to have rapid head growth from six to twelve months. Results of this interesting study showed that infants who had rapidly accelerating head circumference growth until about twelve months, and whose head growth rate decelerated between twelve and twenty-four months, were more likely to be autistic than infants with more typical head circumference trajectories (ncbi.nlm.nih.gov/pmc/articles/ PMC3612537/).

So what makes the head swell up unnaturally in the first year of life? To answer that question, you have to answer this question: what happens in the first year of life? The investigators diplomatically did not ask that question (like Andy Wakefield did).

Occam's razor offers us the most obvious explanation. A huge quantity of vaccines administered in quick succession starting birth through twelve months causes baby's brain membranes (meninges) to swell rapidly and the head to expand disproportionately compared with the body. It's a miracle the head does not explode. With vaccines administered in rapid fire succession, the infant body has almost no chance to recover from the prior injury before the next one is inflicted upon it. Vaccine adjuvants, toxins, preservatives and contaminants are known to cause a massive inflammatory response in a nascent body ill-prepared to handle such an onslaught.

We know this because the vaccine inserts say so, vaccine court reports verify this and over four billion dollars have been handed out in reparations for such injuries. In fact, vaccines are designed to cause this kind of response, else antibodies would not be formed. The question this begs is, antibodies to what? Sadly the answer is, the antibodies attack just about everything in the body, in particular, critical parts of the developing brain. At around twelve months of age, the vaccines taper off a bit, as does the inflammation, but for many children, the damage is done. The growth and development that occurs in those twelve months is critical to the child's future. There is no going back.

For folks who choose to vaccinate, I'd recommend you check your baby's head circumference regularly. If the baby started out with a head circumference in the fiftieth percentile and rapidly went up to the ninety-seventh, consider the possibility that you might not have a powerful brain growing in there, but evidence of inflammation and damage. Observant parents will stop vaccinating after the first time they see this happening, and might still be able to salvage their child's health. Many parents are simply told by their pediatricians (who are bonused heavily on vaccine compliance) that this is normal and natural. As a matter of fact, many mothers I know are told by their husbands that they are imagining this. However, it is real, measurable and







For parents of unvaxxed children whose child's head grows suddenly and faster than their previous norm, look for antibiotic exposure, mercury in mom, lead, glyphosate and other environmental exposures. A poison is a poison, wherever, whenever, however administered.

Since autism affects more boys than girls, the researchers also checked for gender differences between boys versus girls. And sure enough, the heads of boys in this group swelled up much more and at a faster rate than heads of girls

When I go to the park here, I see so many children with huge heads, it seems like it is practically the norm now. Pretty soon the reference ranges will be changed to reflect this new normal, the hyper-vaxxed head. And your smaller-headed unvaxxed baby will be the odd duck. A misfit. It's a strange social phenomenon, that if everybody is like everybody else, the pain of autism syndrome disorder (ASD) becomes more acceptable. The Joneses effect takes hold and parents don't really seem to mind so much that this is a deleterious thing happening to their own child. I find that many parents are much more accepting of the autism diagnosis in their child today, as compared to a decade ago, simply because so many children they know have it. If everybody is in the same straits, it somehow becomes okay. Autism then becomes the default position-and an acceptable position. Children with autism are labeled as different, not ill or damaged. Their condition is labeled as

mental, not physical. But they are not "different"—they are injured. They are not mentally ill, they are physically ill.

From this point on, the multibillion dollar "treatment" industry kicks in. But all their efforts do not "treat" the child. They actually make them sicker. Ritalin, Risperdal, Effexor, anti-seizure meds, uppers, downers, antibiotics, antifungals, antivirals. Autistic children die at a much higher rate than normal kids. After the diagnosis, parents go out and seek various concessions from schools, behavior therapists, governments and finally special institutions. the whole enchilada of services hawked to these damaged children, none of which addresses or even remotely refers to the root cause. Since when did we become so purposefully blind to the most vulnerable amongst us?

> Sushama Gokhale Sebastopol, California

AUTISM AND VACCINATIONS

The Kendall Nelson article in Vaccination Updates (Winter 2018) struck a chord with me when it addressed the frequency of vaccinations as correlated to the rate of autism in the context of a couple of decades ago. In 1967 I was dating a young woman at Indiana University who was studying speech therapy. She intended to use her skills to help autistic children, which was the first time I had heard of the disorder. I visited her in French Link, Indiana, where she got a summer job working with autistic children in a statesupported institution, which was the only place she could find that provided treatment for autistic children. Prior to

her graduation in 1969, there were no opportunities in her desired profession because autism was so rare; she had to switch to special education.

> Lawrence Mayhew Spring Green, Wisconsin

FERTILITY AND ENERGY RESTORED

After three years on the birth control pill, I noticed that my menstrual cycle was not only barely returning but was actually disappearing with one anovulatory period every three, five, six months, and then nothing for over a year. Tests showed that I had developed polycystic ovaries and stage 3+ adrenal fatigue, which gradually worsened until I was almost housebound.

I tried herbal tinctures, organic vegetarian and vegan diets with green smoothies, but all to no avail. I did notice clearer skin and better immunity and digestion but no progress with my hormonal health or energy. So there I was, a disabled, infertile twenty-sixyear-old with big dreams turned to dust.

Then, my cousin recommended the book *Healing our Children*, which got me onto traditional diet protocols. I implemented organ meats, ghee, fermented cod liver oil-butter oil blend, and unhomogenized milk (raw milk was not available in Australia then).

A few months after, I moved to Peru and I started drinking one liter of fresh, pastured raw milk daily. The milk came from a small farm around the corner. After two or three months, I noticed my hair was growing back around my forehead and my skin was shinier. After six months on raw milk,

my energy was strong enough to go out and not crash afterwards for a week. At this point, my menstrual cycle returned and became more and more regular starting at thirty-three days and normalizing at twenty-eight days per cycle.

In August 2017, I met and married my Bolivian spouse and in December 2017, we decided to try for a baby. I fell pregnant first try and gave birth to the most beautiful baby. I drank raw milk throughout the pregnancy (against the doctor's advice!) and still drink it while breastfeeding. I have an abundance of milk and my now sevenmonth-old baby has rarely been sick (even though his father vaccinates him!).

Four months postpartum, my period returned and I had two regular periods. After that, the periods stopped again and I

felt my energy sliding away. Thanks to a post on the WAPF website, I've added raw egg yolks to my daily regime in addition to the raw milk and my energy is much better on the days that I have four to six raw egg yolks. My little man is a big feeder, so it makes sense that I need even more nourishment while nursing!

We will see what happens in the future, but for now I am thrilled with my beautiful little family and having enough energy to enjoy it. Thank you so much to A Campaign for Real Milk and the Weston A. Price Foundation for reviving ancient wisdom about real food!

> Rosanne Australia and Bolivia

GENEROSITY

In March 2019, WAPF sent an email to members asking for help for a farmer. The farm's fundraising page had been up for three days and was at two hundred forty dollars of the fifteen



thousand dollars hoped for. Within two short hours of sending the email to WAPF members, the amount was at twelve thousand dollars!

I marvel at the generosity and commitment of the WAPF members. We may only have twelve thousand members, but they care and actually act. They put their time and money into helping the efforts for food freedom and to keep raw milk flowing. I am in awe at what a few committed people can do! Hats off to you!

> Patricia O'Brien Glenn Dale, Maryland

AUDIO FOR TABLETS AND PHONES

This is a personal experience and test using a meter from EMFields.org, the Acoustimeter AM-10.

> I ordered a couple of Bluetooth headsets from Amazon and they came today. I used the EMFields meter to test the headsets. The literature claims that the headsets are 1000 percent weaker than the cell phone itself. Well, when I put the tester at the headset it was 2500 average where it should be between one and five and the Peak reading was at the maximum 6.00 V/m. The reading at the phone was 100 average and 2.0 V/m fluctuates a bit.

These things are dangerous for sure! I did not even hold them up to my ears but simply returned them as defective because they by far exceed the federal guidelines and limits.

Be careful what you are doing for audio from your tablets and phones! Don't use them. Microwave radiation harms red blood cells and causes them to spill hemoglobin.

> Pat Brady Riverton, Oregon

FERMENTATION AND WGA LECTINS

This is a summary of my experiment with wheat germ agglutinin (WGA) lectins to see whether fermenting would have an effect on my gut. I used to bake all my own bread and biscuits, fermenting the batter by putting it in an open window or using yogurt that I made.

Several weeks ago I made biscuits with whole grain wheat flour which included the WGA, mixing the flour with organic yogurt and organic chicken fat. I mixed and baked them right away and ate one or two for several days and the

rest went into the compost. This past week I made biscuits with the same recipe but put it on the warm mantel over my wood stove and mixed it every few hours. The batter went from crumbly to a smooth batter as it fermented. After about thirty-six hours I baked the biscuits and have been eating one or two a day.

When I ate the unfermented WGA it took longer to pass through my body and my stool was thicker and harder, which was unusual. Eating the fermented ones my stool has returned to normal. In addition, I noticed that after a

couple days on the unfermented ones I felt stodgy, almost depressed, and couldn't motivate myself to do much. I remember thinking at the time this was unusual for me and an important response. As of today, that mental stodginess is gone and I feel normal again.

While this is only anecdotal, it looks like the WAPF recommendations to soak and ferment grains and legumes might be the way we should be dealing with the lectin issue. Thanks for opening up an interesting nutritional trail to follow.

> June Varner East Nassau, New York

ONE OF THOSE PEOPLE

Here's a picture that would be fun for the journal. The man in the photo

tells me that some people say to him, "Oh, you are one of those people." So he decided to embrace "Yes, I am one of those people." So he sent a picture and a caption.

"Raw milk has been proven to



be a superior nutritional product over pasteurized and homogenized milk. Why do we raw milk advocates have to fight for the right to consume it? Raw milk parents with young children will not speak out, as they have been threatened to be reported to Child Protective Services."

Wouldn't you know the Weston A. Price Foundation would be on top of the issue? Like raw milk, the Foundation is the cream—always rising to the top!! Thank you!

> David Lindig Fergus Falls, Minnesota

AGRICULTURE IN HOLLAND

I thoroughly enjoyed the podcast interview with Zen Honeycutt in the Winter issue. I especially liked her response to those of us who are skeptical of all the reports stating the hazards of ingesting glyphosate.

Chronic conditions can often take a long time to display symptoms, and once they become evident they can be very difficult to diagnose accurately

> and remediate. I'd like to add some very exciting information as a direct rebuttal to the Big Ag mantra, which claims the necessity for GMOs and pesticides to increase yields so we can feed the world.

> There is a small European country, Holland, that has demonstrated an agricultural model with results that are absolutely amazing. Their model is a very synergistic one among government, academia and farmers, which has made this small country the second agricultural exporter in the world behind the

U.S., even though the U.S. is over two hundred times larger geographically. They lead the world in exports of tomatoes, potatoes and onions and are overall the largest exporter of vegetables.

Total water input for tomato production is by far the least of all the world's producers using one-fifteenth that of the U.S., which is in second place. Their model uses many very large greenhouses (twenty-two acres is common) which provide optimal growing conditions such that lettuce and other leafy greens production per acre grown inside produce the equivalent of ten acres grown outdoors with a 97 percent reduction in chemical input and a 90 percent reduction in water usage. With pesticide usage so low they do not grow any GMO crops nor export any GMO seeds.

These amazing statistics are the result of a collaboration between farmers and Wageningen University & Research (WUR), considered by many to be the world's premier agricultural university, which shares their innovations directly with farmers-and not just Dutch farmers. Recognizing the need to feed as many as ten billion people by 2050, the university has more than a thousand projects in more than one hundred forty countries and has formal pacts with governments and universities on all six continents. About half of their graduates come from Third World countries in Asia and Africa.

For those interested in learning more about this sustainable system that can both feed and educate the world check out *National Geographic*, September 2017.

Jim Stellick Colorado Springs, Colorado

OSTEOPOROSIS AND ARTHRITIS COMPLETELY CURED

Being in pain for years—plus being told that there's no cure—is as scary as it is devastating. Luckily for us, doctors can be wrong.

When I was forty-five, I started noticing that my knees hurt each time I kneeled. A couple of years later I took the bone density test and was diagnosed with osteoporosis in my back and hips and osteopenia in my arms. The doctor said it was normal given that menopause had already begun for me and that I simply needed to take a calcium pill daily and a calcium fixative pill once a month.

I started feeling slightly better, which continued for around eight years, until the pain in my knees came back, and stronger. For this they gave me corticosteroids, and they didn't explain what was happening; they actually told me it was something I had to get used to for it was, again, "normal" for osteoporosis to be increasing and spreading.

When I was fifty-six, I got a new doctor who also said my condition was "normal." I was also diagnosed with arthritis as my body was stiff every morning when I woke up. With all of these conditions, my energy was vanishing and so was my joy for living. I tried a couple more doctors who all said the same: there was no cure and I had to get used to the idea that eventually I would need the help of a walker.

That became my main motivation for seeking some answers outside of medical practice, for I was completely sure I didn't want to be unable to walk for myself if I had legs, and my body had been perfectly functioning all of my life. This was all mysterious and unclear, and I was starting to suspect it could be a matter of incompetence, so I went to ask Google-now I understand I should have asked Google beforeand the only enlightening information I found was in Spanish from Spain. I learned of some really expensive alternative treatments that seemed to be working, but we don't have these here in Perú, and the price of the main ones was out of my reach anyway.

I did find some places where they would apply "ozone" though, which I did while thinking how I could access the other treatments in Europe. In the midst of all this, I decided to radically





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SUMMER 2019



change my diet into a healthy one, and I also stopped the medication since it was expensive and it wasn't helping anymore. I must be honest: I thought a dietary change would only help a little bit, but I had nothing to lose.

First, I tried an almost vegetarian diet: the results of avoiding ultraprocessed foods, vegetable oils for cooking, industrial salt and the industrial chicken I used to eat so regularly were immense and immediate. In only two weeks I was doing things again! I was feeling energetic when I woke up, I would go upstairs with a lot less difficulty, I lost weight and I returned to gardening. Also, many little ailments (by that time I had assumed them to just be normal) started disappearing-only by switching my diet. The only problem was I thought I needed to avoid animal products-since "vegetarianism" had cured me-so I couldn't eat my favorite foods, those I grew up eating, but I couldn't complain since I was feeling so much better.

It wasn't until the Weston A. Price Foundation came to my city in Perú that I realized it was not vegetarianism that had cured me but the fact that I had left out all the industrial modern foods (and I had included good dairy, good eggs and coconut oil). Could I feel even better eating all the nutrient-dense foods they were telling me about? I wanted to try for sure!

I did and it worked! My health has definitely improved even more since including pig trotters and red meat, increasing the amount of egg yolks, using lard and having bone broths. Now I'm able to enjoy again the traditional foods of Perú which include lots of shellfish and organ meats. I thank the WAPF for showing me how to enjoy food and be well-nourished and healthy at the same time! I now know that being an elderly woman doesn't have to mean being sick or weak!

> Sonia Obando Lima, Perú

COQ10 FOR BLOOD PRESSURE

I was livid but relieved to discover the statement below and then spent twelve hours reading every journal article about it that I could get my eyes on. I'm relieved that though this information wasn't, until yesterday, in my purview—at *last*, I have it. And I will be reading a lot about it.

Here's the statement: "CoQ10's effectiveness in lowering blood pressure has been known since the 1970s."

I know a ton about biochemistry, biology, chemistry, human physiology, cell biology, nutrition and pathology, but when it comes to healthful lowside-effects, effective supplements, the waters are highly muddied and very confusing even for one such as me who is always on the active *hunt*.

Hypertension is dangerous. But putting someone on medication for life with no plan to suss out the source or cause, with no plan to make adjustments and lower or get off the med—is *not right*! Unfortunately, treatment with meds is the paradigm now.

Maybe if the blood pressure meds I've been on for the last seven years worked, they might have helped me. But they haven't. And now I just learned that a supplement could help (which no doctor ever mentioned trying and then titrating up the CoQ10 and down the meds!)—learning this, I have the opportunity to take my life in my hands, be an N = 1, and test it out.

This is not the Holy Grail of supplements, but though it is a bit more pricey than some supplements I've tried, it fills the other bills I've been searching for. Effective, safe, no or nearly no side effects, easily tolerated long-term, mechanistically plausible, population-wide and tolerated well.

Here's more, from the abstract: "These findings indicate that treatment with coenzyme Q10 decreases blood pressure, possibly by decreasing oxidative stress and insulin response in patients with known hypertension receiving conventional antihypertensive drugs."

Also, in two journal articles from the 1990s, we learn that CoQ10 helps congestive heart failure (CHF). My dad had CHF but no one ever recommended he be on CoQ10 supplements.

I want to believe that our doctors mean well but that they had no knowledge of this information. Our for-profit "health care" system is *so messed up*!

Here's an abstract: "Effect of hydrosoluble coenzyme Q10 on blood pressures and insulin resistance in hypertensive patients with coronary artery disease."

From the abstract: "In a randomised, double-blind trial among patients receiving antihypertensive medication, the effects of the oral treatment with coenzyme Q10 (60 mg twice daily) were compared for 8 weeks in 30 (coenzyme Q10: group A) and 29 (B vitamin complex: group B) patients known to have essential hypertension and presenting with coronary artery disease

(CAD). After 8 weeks of follow-up, the following indices were reduced in the coenzyme Q10 group: systolic and diastolic blood pressure, fasting and 2-h plasma insulin, glucose, triglycerides, lipid peroxides, malon-dialdehyde and diene conjugates. The following indices were increased: HDL-cholesterol, vitamins A, C, E and beta-carotene (all changes P<0.05). The only changes in Every issue is well worth reading coverto-cover. As the director of Vaccination Liberation for 20 years, I especially appreciate your excellent coverage of the vaccine issue.

With that said, I want to let other WAPF members know about the national grassroots VAERS Awareness Project. Even though it is a poor barometer of vaccine hazards, VAERS data are intimately involved in the licensing of vaccines. First, pre-licensure of a vaccine is obtained by comparing a vaccine to another vaccine or to non-viral vaccine contents; never to a placebo, which is the honored gold standard of scientific comparisons. After that limited formality is completed, post-licensure

is determined

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the group taking the B vitamin complex were increases in vitamin C and beta-carotene (P<0.05). These findings indicate that treatment with coenzyme Q10 decreases blood pressure possibly by decreasing oxidative stress and insulin response



in patients with known hypertension receiving conventional antihypertensive drugs."

Just having a little bit of crazed, out-of-my-mind epiphany. I'll keep you posted, and that's a threat. I'm excited but also so very livid. Big Pharma is a criminal enterprise.

> Laurie Lentz-Marino South Hadley, Massachusetts

VAERS AWARENESS PROJECT

First I want to thank you for putting out such an excellent quarterly journal.

In 1986 the U.S. government barred parents from suing pharmaceutical companies for vaccine injuries and set up the Vaccine Adverse Event Reporting System (VAERS), a littleknown mechanism whereby parents of vaccine-injured children can voluntarily report such injuries and seek compensation from the government. Due to its obscurity, less than 1 percent of injuries are reported to VAERS, (https://healthit.ahrq.gov/sites/default/ files/docs/publication/r18hs017045lazarus-final-report-2011.pdf). distribution does not equal the number of vaccines actually used, and compensated injuries are admittedly a tiny fraction of the actual injuries known to occur.

Vaccine package inserts admit that product trials followed the subjects for only four to five days to monitor for adverse reactions. These trials are the *only* safety monitoring that occurs prior to FDA approval and licensing. This is why reporting vaccine adverse reactions to VAERS is essential to assess more accurately the injuries caused by





vaccines often required for school and employment.

The VAERS Awareness Project post-it-note highlights the various known injuries that have been compensated for through the Vaccine Injury Compensation Program. From January 1988 to April 2019, over four billion dollars have been paid in compensation to adults and families of children who have proved their ailments were a direct result of a vaccine injury.

We developed the four-inch-bysix-inch post-it-note to highlight these reportable injuries; they can be purchased in small or large quantities at vaclib.org/basic/products.htm#pads. By clicking on the description, you can view the two styles of post-it-notes. We have also developed a half-page flyer and a trifold to accompany the information for one-on-one sharing.

August is Immunization Awareness Month. We are hoping to have all fifty states involved in this effort to educate the masses as to the real dangers of administering today's vaccines to children and adults.

With the current level of censorship on this one topic, it is imperative that as many people as possible join us in this effort to save more pregnant moms, infants and children from these neurotoxins coming through the needle.

> Ingri Cassel, Director Vaccination Liberation Spirit Lake, Idaho VaccineTruth.com

COFFEE ARTICLE

Thank you so much for the coffee article (Winter 2018). I am sixty-four

and only became a coffee drinker in the last ten years after hearing the health hype about it from sources I trusted. But your article was the information and the kick in the pants I needed to act on what I had known and read over forty years ago in all three of Adelle Davis's books from the 1950s.

Caffeine by definition is a toxin to the body and though it can be remedial as drugs can be, it's also dangerous and even deadly (see the recent death of a twenty-five-year-old from caffeinated sports drinks).

I easily switched to chicory without a hiccup at all and have found that my body is showing some good signs that I made the right decision.

- 1. Less hair loss when I wash my hair (wasn't worried about that but it is a good sign).
- 2. I have scaly rough patches alongside my nose that are improving.
- 3. My teeth are staying clearer of plaque and tartar (I have extremely fast build-up that I scrape off once a week).
- 4. My gallbladder pain became less acute and now is so infrequent that I hardly notice or think of it.
- 5. I did this primarily for adrenal health and to counteract edema, both of which are improving.

I hadn't expected that much so soon but I am heartened by all these changes and hope to see more as my body is able to use the excellent food I eat to better advantage.

Subsequent to getting off coffee I located a homeopathic doctor and

am now on a regimen of homeopathic remedies which are helping me. I see doctors so seldom that I don't have a regular MD. But after reading your article I thought that homeopathy could be a workable route. The doctor I found first interviewed me for over an hour and then did an extensive blood test and gave me the results. We are addressing various long-term problems but also oral herpes which has been a minor nuisance for about forty years. The doctor felt it should be addressed and handled as I was otherwise healthy per the blood test except for an oddly low white blood count.

The program is a six-month plan and I feel it is working and I love the whole approach.

I feel better, more in control of my health and I truly want to thank you for what you do.

> Mary Fitzgerald Brooksville, Florida

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

Caustic Commentary

Sally Fallon Morell takes on the Diet Dictocrats

DEADLY FUNGUS

While shrill warnings about measles consume media attention, a toxic fungus called *Candida auris* is spreading unheralded through hospitals, wreaking havoc in intensive care units and premie wards. After taking root in India, Pakistan and South Africa, the fungus has entered the U.S., reaching hospitals in New York, New Jersey and Illinois. *C. auris* is impervious to antifungal medications; once it invades an institutional setting, it is very difficult to remove.

At risk are those with immature or compromised immune systems, such as a newborns, the elderly, smokers, diabetics and people with autoimmune disorders who take steroids to suppress the body's defenses. The public knows little about C. auris, even though it is a threat much greater than measles, but it is impossible to find out which hospitals harbor the fungus. Hospitals are reluctant to disclose outbreaks for fear of losing customers, and the Centers for Disease Control, under its agreement with states, is not allowed to make public the location or name of hospitals involved in the outbreaks. As with antibiotics in animal agriculture, antifungal drugs called azoles are overused in

crop production—including potatoes, beans, wheat, tomatoes and onions—causing resistant strains to evolve (*The New York Times*, May 6, 2019). Of course, WAPF-ers know how to protect themselves from deadly organisms with a vitamin-A-rich diet and plenty of fermented foods.

SALAD FROSTING

Kraft has repackaged its best-selling product, Ranch Dressing, as "salad frosting," in order to sell even more of the stuff—oops, according to Kraft, the purpose is "to get kids to eat more greens." In a promotional campaign, Kraft is asking parents to submit examples of "little white lies" that they tell their children, in order to get them to eat their salad (*Washington Post*, June 12, 2019). The campaign has drawn lots of criticism for encouraging parents to lie to their kids, but no one in the media is focusing on the truly horrible ingredients in Kraft Ranch Dressing: soybean oil, vinegar, sugar, salt, MSG, polysorbate 80 and artificial color. (Yes, ranch dressing does contain a small amount of egg yolk, shipped in huge tanker trucks—ever wonder why the industry keeps promoting egg white omelets?) The really huge lie



is that "salad frosting" is good for kids!

WHO BEGS TO DIFFER

In the Spring issue, we reported on the EAT-Lancet report, which calls for imposing a plant-based diet on the world's population in order to save the planet from destruction. But not everyone is convinced. The World Health Organization (WHO) has rescinded its endorsement because of concerns about the impact of such a diet on people's health and livelihood. The WHO withdrew its planned sponsorship after Gian Lorenze Cornado, Italy's ambassador and permanent representative of Italy to the international organizations in Geneva, questioned the scientific basis for the diet. Cornado warned that a global move to such a diet could lead to the loss of millions of jobs linked

to animal husbandry and destroy the traditional diets that define the cultural heritage of the world's population. He also noted that the EAT-Lancet "dietary regime" could be nutritionally deficient for human health. Unfortunately, this voice of reason has been largely ignored; a launch event on March 28 in Geneva, Switzerland, sponsored by the government of Norway (a country that never in its history consumed a plant-based diet) went ahead as planned (nutritioninsight. com, April 16, 2019.

THIS IS GETTING RIDICULOUS!

New rules in London ban ads for junk food in the city's

Caustic Commentary

busses, the Tube and train networks, and a recent ad to get the axe is one featuring strawberries and cream to promote the Wimbledon tennis matches! Banned foods include breakfast cereals, yogurts, cakes, pizza, bread, sausages—and cream! The new transport policy is backed by Mayor Sadiq Khan and celebrity chefs like Jamie Oliver. Said Christopher Snowdon of the Institute of Economic Affairs, "This ban was sold to the public as a clampdown on junk food advertising. We can now see that it extends far beyond junk food and even includes non-food advertising" (dailymail.com, April 24, 2019). The new rules also stopped the grocery delivery service Farmdrop from advertising free-range butter, eggs and bacon.

JUNK FOOD AND WEIGHT GAIN

An intriguing study published in Cell Metabolism (May 16, 2019) indicates that eating ultra-processed foods actually drives people to overeat and gain weight compared with a diet of unprocessed foods. Conducted at the National Institutes of Health (NIH), the study recruited twenty healthy, stable-weight adults-ten men and ten women-to live in an NIH facility for a four-week period and eat only the meals provided for them. Participants were randomly assigned to one of two diets for two-week stretches—one group eating a diet of minimally processed foods and the other eating ultraprocessed food-such as chicken salad made with canned chicken, jarred mayonnaise and relish on white bread, served with canned peaches in heavy syrup. After two weeks, the groups then switched to the other diet plan. The two diets contained the same amount of calories, fats, protein, sugar, salt, carbohydrates and fiber. Both groups ate about the same amount of protein but those on the ultra-processed diet ate a lot more carbs and fat (processed fat), resulting in an average of five hundred eight calories more per day. On average, participants gained about two pounds during the two weeks of the processed-food diet and lost about two pounds on the unprocessed-food diet. The researchers tracked blood glucose and hormone levels, including levels of an appetitesuppressing hormone called PYY and a hunger-stimulating hormone called ghrelin. PYY went down on the processedfood diet and up on the unprocessed-food diet; the opposite occurred for ghrelin. The processed diet will of course be higher in industrial seed oils, refined sweeteners and artificial

flavors like MSG—all known to stimulate increased food consumption and weight gain.

IT'S NOT WORKING

The measles vaccine is mandatory in China, where 99 percent of the population is vaccinated. Yet, China saw over seven hundred measles outbreaks from 2009 to 2012. The 2019 article, "Assessing measles vaccine failure in Tianjin, China," published in the journal *Vaccine*, reports on substantial measles cases in Tianjin, China, among individuals who have received multiple measles vaccine doses. The authors suggest that those who receive the vaccine at eight months of age—the earliest possible time for giving the live-virus vaccine—"may have a reduced immune response" and that the vaccine effectiveness may be as low as 23.1 percent for one dose. According to the Centers for Disease Control, one dose of the MMR vaccine is about 93 percent effective.

AUTISM INCREASE

California's draconian vaccination law, SB 277, went into effect in September 2016. The law removed religious and philosophical exemptions to vaccines, and many parents with young children who were behind on the vaccination schedule or had not started vaccinating yet were forced to catch up or no longer attend a public or private school. As a result, many children received lots of vaccines in a short period of time-sometimes as many as eight in one visit. During the period of December 2015 (pre-SB 277) to December 2017 (sixteen months after SB277 was enforced), the number of autistic three-year-olds in California special education courses increased 24 percent! The increase was 14 percent for four-year-olds, 13 percent for five-year-olds and 15 percent for eight-year-olds, according to computer searches via DataQuest. Mainstream media have reported on the increase, but dance around the question of why. "The increased prevalence of autism has been a medical mystery for years," wrote Michael Finch II for The Sacramento Bee, citing "increased awareness" and "broadened medical definitions" as reasons for the increase (The Sacramento Bee. January 19, 2019). The Los Angeles Times papered over this appalling tragedy with the headline, "Here's why the apparent increase in autism spectrum disorders may be good for U.S. children" (April 26, 2018).

Caustic Commentary

SHOCK AND AWE FOR CHILDREN

The U.S. Food and Drug Administration (FDA) has approved a medical device for children ages seven to twelve with socalled attention deficit hyperactivity disorder (ADHD)-a "disease" voted into existence by a show of hands by American Psychiatric Association members that often represents the spontaneous behavior of normal children. The device delivers an electric current to the brain with an electrode taped to the forehead. The device-which is supposed to work by increasing blood flow in certain areas of the brain and decrease it in others-has been tested on a mere sixtytwo children for four weeks. The researchers observed a number of side effects including drowsiness, increase in appetite, trouble sleeping, teeth clenching, headache and fatigue. So instead of focusing on the true causes of disruptive behavior-poor nutrition, vaccine injury, drugs, toxic overload, abuse, boredom, bullying and stress-the FDA proposes the equivalent of shock treatments to vulnerable children (cchrstl.org, May 13, 2019).

SWEDEN BANS MANDATORY VACCINATIONS

While California and New York have eliminated religious and philosophical exemptions to vaccinations, claiming that "the science is settled" and that "vaccinations are perfectly safe," the Swedish *Riksdag* (Parliament) has rejected motions that would have enshrined forced vaccinations into law. "It would violate our [Swedish Constitution] if we introduced compulsory vaccinations or mandatory vaccinations," was the official statement. Noting also "massive resistance (by Swedes) to all forms of coercion with regard to vaccinations," the *Riksdag* also made reference to "frequent serious adverse reactions" in children who receive vaccinations. The statement also made reference to "an extensive list of the additives found in vaccines—substances which are not health foods and certainly do not belong in babies or children" (dailyhealthpost.com, May 24, 2019).

VITAMIN K AND BLOOD PRESSURE

The Weston A. Price Foundation has been a leader in increasing public awareness about the importance of vitamin K2. This vitamin works synergistically with vitamins A and D to regulate calcium metabolism, support learning capacity, ensure fertility, protect against cancer and play a host of other roles in human metabolism. Now we learn that a new study published by the American Heart Association has linked higher vitamin K2 status (as measured in the blood) with "greater pulse wave velocity. . . central pressure, forward pulse wave, and backward pulse wave"—in other words, less calcium in the arteries and better blood flow. Only vitamin K2, the animal form of vitamin K, provided the cardiac benefits. "Vitamin K1. . . .had not been linked to cardiovascular benefit as K2 seems to be the form of K active outside of the liver for cardiovascular health" (*J Am Heart Assoc.* 2019 Apr 2;8(7):e01196). No, the vitamin K we need for cardiovascular protection comes from animal foods like poultry fat, poultry liver and aged cheese—the kinds of foods the cardiologists have been warning against for years.

NATURAL REMEDY

Pepe Casanas, age seventy-eight, of Havana, Cuba, has found an infallable way to treat his rheumatism pain: scorpion bites. Once a month for the last ten years, Casana traps a blue scorpion and lets it sting him. "I put the scorpion where I feel pain," says Casanas. "It hurts for a while, but then it calms and goes, and I don't have any more pain." Here's a folk remedy validated by science: scientists have confirmed that scorpion venom has anti-inflammatory and pain-relief effects. A Cuban pharmaceutical company sells a homeopathic pain remedy called Vidatox, made from scorpion venom, but Casanas takes a more direct route. He reports that he sometimes keeps a scorpion under his straw hat for luck, where he says it likes the shade and humidity (Reuters, December 14, 2018).

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.



WiseTraditions 2019

twentieth annual international conference of the $Weston \ A. \ Price \ Foundation$

ANCESTRAL WISDOM MEETS MODERN SCIENCE



Friday, November 15 – Sunday, November 17 Fundraiser Reception on Nov. 14 & Farm Visit Nov. 18 North of Dallas, Texas

AMERICA'S PREMIER NUTRITION CONFERENCE Life-Changing Lectures • Cooking Classes Cutting-Edge Nutrition • Traditional Nutrient-Dense Meals Wise Kids Program • WAPF-Friendly Vendors • Networking

For those interested in improving their health through food, farming & the healing arts.

CONFERENCE SPEAKERS

Sandeep Agarwal, expert on ghee & Indian cuisine Peter Ballerstedt, PhD, expert on ruminant agriculture Leslie Bobb, MPH, CIHC, fermentation expert Mandy Blume, author of *Real Food Recovery* Natalie Campbell, MS, vaccine researcher Monica Corrado, MA, CNC, traditional food chef Tom Cowan, MD, author of *Human Heart, Cosmic Heart* David Diamond, PhD, expert on cardiovascular disease Ben Edwards, PhD, integrative-functional medicine Sally Fallon Morell, MA, author of *Nourishing Traditions* Janine Farzin, of ofallygoodcooking.com Andrew Gardner, expert on animal fat skin care Esther Gokhale, author of *8 Steps to a Pain-free Back* Lyndsay Gutierrez, MIH, CICH, fermentation expert Anthony Jay, PhD, author of *Estrogeneration* Kiran Krishnan, expert on intestinal flora Kelly Moeggenborg, of kellythekitchenkop.com Becky Plotner, ND, expert on GAPS Robert Quinn, founder of Kamut International Karen Randall, DO, emergency medicine physician Pam Schoenfeld, RD, co-director Healthy Nation Coalition Stephanie Seneff, PhD, expert on glyphosate Joseph Tarantolo, MD, an existential psychiatrist Jerry Tennant, MD, author of *Healing is Voltage* Carrie Vitt, of DeliciouslyOrganic.net Timothy Weeks, DC, author of *Whole Body Health* Louisa Williams, MS, DC, ND, author of *Radical Medicine* Lindsea Willon, MS, NTP, expert on insulin resistance Will Winter, DVM, expert on pastured livestock Nasha Winters, ND, LAc, co-author *The Metabolic Approach to Cancer*

LOCATION AND ACCOMMODATION

The conference hotel is the Delta Hotel by Marriott 777 Watters Creek Blvd, Allen, Texas 75013. A special conference room rate of \$135 per night (plus taxes and fees) has been negotiated for our attendees. This rate is for single and double occupancy and is available only until October 24 or until all rooms are sold. You may book online (see details at wisetraditions.org) or call (469) 675-0800 and mention Wise Traditions.

One-day, weekend, no-meal options. Free exhibit hall and film.

Children's Program • Monday Guided Farm Visit • Continuing Education Units • Early Bird Discount • Scholarships For more information, call (540) 722-7104 or visit wisetraditions.org

PRE-CONFERENCE AND POST-CONFERENCE ACTIVITIES

THURSDAY, NOVEMBER 14 6:00 – 9:00 pm RAW MILK CAMPAIGN FUNDRAISER RECEPTION

MONDAY, NOVEMBER 18

Will Winter, DVM Professionally Guided Farm Visit

WISE TRADITIONS 2019 REGISTRATION FORM

First Name Last Na	ame		Nar	me for Badge	
Organization/Affiliation					
Address					
City	State		Zip Code	Country	
Phone	Fax		Check her	e if you are interested in dor	nating food.
E-mail	Website		0 T	his is my first Wise Traditions	s conference.
□ Check here to reserve gluten- & casein-free conference mea	ls. OR 🗖 Glute	en-free o	nly. OR 🗖 Casein-free only.	Register for GF and/or CF ch	ildren's meals below.
DISCOUNTED MEMBERSHIP: become a member of the Fou □ \$30 US Annual Membership (regularly \$40) □ \$40 Canad				□ I am a chapter leader.	
FULL REGISTRATION* includes conference materials, Friday lunch and Awards Banquet, Sunday sessions and brunch (exce				□ I plan to attend the C Friday, Nov 15, 9 am-1:3	
 Full Registration Full Registration No-Meal Option (meals not included) 	By Sept 20 \$425 \$350		After Sept 20 \$450 \$400	How did you hear abou UWAPF journal Friend/colleague	t the conference? WAPF email WAPF postcard
WEEKEND REGISTRATION includes sessions with lunch and Weekend Registration	banquet on Sa \$315	aturday a	nd lunch on Sunday. \$355	 Blog Web advertisement Print advertisement 	 Twitter or FB WAPF website Radio
 DAILY REGISTRATION includes conference materials, session Daily Registration Friday* Saturday Sunday Saturday Traditional Diets Seminar, Sally Fallon Morell Monday Guided Farm Visit 7 AM-6 PM (includes lunch) 	\$135	no dinner \$75). \$160 \$110	 Another conference Other, please specify_ What is your current oc 	Chapter
 EVENING EVENTS Thursday Fundraiser Reception Friday Dinner and Events Saturday Evening Awards Banquet FTCLDF BREAKFAST One breakfast (donation) Breakfast for Friday, Saturday, Sunday 	5	\$50 \$60 \$75 \$17 \$45		 Medical practitioner Nutritionist Massage therapist Chiropractor Nurse Agriculture professionation Artisan worker Other, please specify_ 	 Farmer Homemaker Student Retired Teacher Journalist Chef
CHAPTER LEADER MEETING	plan but you o ooking 🗖 H Practitioners Par I Diets 🗖 Pr	Iolland/Q nel ∎F ∙actical	Quinn	WAPF Wise Traditions 1900 Jones Road	04 Conference
CHILDREN'S PROGRAM (Child must be age 3-12 and potty t Child's Name(s)@ \$250 per child for Friday - Sunday includes Friday lu @GF/CF meals OR GF only OR GCF only forchildren	rained.) unch & dinner	; Saturda	Age(s) y lunch, Sunday brunch	Winchester, VA 22602 PLEASE NOTE: One adult registration per please. Forms submitted payment will not be proc	er form, without
CEUs FOR RNs & LACs. A \$5 certificate of attendance is availa RN ILAC – All 3 days \$65 Friday \$25 Saturday \$25 RAYAGENT REOCESSING				FOR FURTHER INFORM	IATION
PAYMENT PROCESSING Total Due: MasterCard Visa Check Pay Full Name Card Number				NO REFUNDS will be is December 31, 2019.	sued after
Exp. DateSecurity By submitting this form, I authorize Wise Traditions to charge the applic	Code (3 digits			nust be submitted in writing	must be received

By submitting this form, I authorize Wise Traditions to charge the applicable registration fees. I understand that all cancellations must be submitted in writing and must be received by October 23, 2019 to be eligible for a refund, less a \$25.00 administrative fee. All refunds will be issued following the conference. Substitutions will be permitted at any time. Registration packets will not be mailed and must be picked up on-site at the conference registration desk when you arrive at the conference.

Wise Traditions 2019 Texas Schedule

THURSDAY, NOVEMBER 14

6:00-9:00 PM Raw Milk Fundraiser Dinner (not included with conference registration)

FRIDAY, NOVEN 9:00 - 1:30	ABER 15 Chapter Leader Meeting (chapter leaders who attend get a \$20 discount on registration)
9:00-12:15 Seminar Seminar	Anthony Jay, PhD: Artificial [Estrogen] Intelligence Becky Plotner: GAPS, Stage by Stage
12:15-1:45	Lunch
1:45-3:00 Basic General Focus	Monica Corrado: Broth and Stocks: Timeless Remedies for Vibrant Health TBD Natalie Campbell: The Vaccinated Versus Unvaccinated Children and the Risk of Chronic Diseases
3:45-5:00 Basic General Focus	Sandeep Agarwal: DIY Curry Sauces, Spice Blends and Toothpowder Robert Quinn: Studies on Kamut Timothy Weeks, DC: Whole Body Health Tests: Simple Tests to Determine Your Current Level of Health and Strategies for Resetting It
6:00-7:30	Dinner
7:30-9:30 Bloggers Panel General Talk Film with Q&A	Making Wise Traditions Work for Your Family with Kelly Moeggenborg, Carrie Vitt, Mandy Blume and moderator Hilda Labrada Gore Ask The Practitioner Panel with Tom Cowan, Nasha Winters, Anthony Jay, Pam Schoenfeld, David Diamond and moderator Sally Fallon Morell Peter Ballerstedt: Humanity & Ruminants: Past, Present and Future TBD
SATURDAY, NO 6:45-7:45	VEMBER 16 Movement - Eshter Gokhale
7:30-8:15	Sponsor Presentation
9:00-10:15 Basic Seminar General Focus	Sally Fallon Morell, Nourishing Diets, Part 1 Stephanie Seneff: Glyphosate: The Rattlesnack in the Corn Fields, Part 1 Peter Ballerstedt: Forage Agriculture IS Sustainable Agriculture Anthony Jay: Straight Shooting Stem Cells
11:00-12:15 Basic Seminar General Focus	Sally Fallon Morell: Nourishing Diets, Part 2 Stephanie Seneff: Glyphosate: The Rattlesnack in the Corn Fields, Part 2 Esther Gokhale: Primal Movement Karen Randall, DO: Cannabis Medicine
12:15-1:45	Lunch

Wise Traditions 2019 Texas Schedule

SATURDAY, NOVEMBER 16 (continued)

1:45-3:00 Basic Seminar	Sally Fallon Morell, Nourishing Diets, Part 3 Tom Cowan, Cancer and the New Biology of Water, Part 1
General Focus	Andrew Gardner: What's Wrong with Modern Skin Care, How Our Ancestors Cared for Their Skin and How You Can Do the Same (Including the Best Way to Render Animal Fats)
FOCUS	Pam Schoenfeld: Vitamin A-mazing!
4:00-5:15	
Basic	Sally Fallon Morell, Nourishing Diets, Part 4
Seminar	Tom Cowan, Cancer and the New Biology of Water, Part 2
General	Janine Farzin: Making Offal Taste Good
Focus	Joseph Tarantolo: Not by Bread Alone Doth Man Live, Even if it's Sourdough: A Critique of Antidepressants and the Medical Model in Psychiatry
6:30-9:30	
	Awards Banquet Keynote: David Diamond: Dietary Sense and Nonsense in the War on Saturated Fats and Cholesterol
SUNDAY, NOV	FMBFR 17
6:45-7:45	Movement - Esther Gokhale
7:30-8:15	Sponsor Presentation
9:00-10:15	
Basic	Sally Fallon Morell: Reading Labels
General	Louisa Williams: The New Homeopathic Sensation Method
Seminar	Jerry Tennant: Treating Pain, Part 1
Focus	Ben Edwards: Toxic Iron and the Master Antioxidant
11:00 – 12:15	
Basic	Leslie Bobb & Lyndsay Gutierrez: The Art, Science and Story of Fermentation
General	Nasha Winters: Healing with Hunger: Practical Applications of Intermittent Fasting
Seminar	Jerry Tennant: Treating Pain, Part 2
Focus	Kiran Krishner: Healing Leaky Gut
12:15-1:30	Lunch
1.20 2.45	
1:30-2:45 Basic	Lindsea Willon: Sports Nutrition: How to Optimize Perfomance at Any Level
General	Jerry Tennant: Root Canals
Focus	David Diamond: Demonization and Deception in Targeting Cholesterol as a Cause of Cardiovascular Disease
2:55-3:45	
	Closing Ceremony with Sally Fallon Morell and Mandy Blume: The Powerful Simplicity of Recovering with Real Food
MONDAY, NO	/FMBFR 19
	Will Winter, DVM: Professionally Guided Farm Visit

Update on Fermented Cod Liver Oil

By Sally Fallon Morell

ew and innovative products often meet with skepticism, especially if they challenge existing industries or paradigms. Such is the case with fermented cod liver oil, a product introduced in 2006, which has caused a hue and cry among conventional scientists and manufacturers of competing products.

Although fermented fish products are fixtures in many traditional cuisines, they are not part of the American culinary tradition. Those unfamiliar with worldwide fermentation traditions have applied the terms "dangerous," "rotten," "rancid" and "putrid" to the new cod liver oil product. Yet testing shows that fermented cod liver oil is safe and even superior in many ways to today's highly processed brands of cod liver oil.

ROTTEN VERSUS RANCID

Many concerns about fermented cod liver oil stem from confusion about the terms "rotten" and "rancid." Rotten, putrified or fermented foods—including meat, fish and fat—are foods that have been predigested by bacteria. In an important 2017 paper published in *PaleoAnthropology*,¹ anthropologist John D. Speth explains that "Because of the peculiar properties of many bacteria, including various lactic acid bacteria (LAB), which rapidly colonize decomposing meat and fish, these foods can be preserved free of pathogens for weeks or even months and remain safe to eat."

Rancid is a term that applies to fats; rancidity in fats and oils occurs when they have been exposed to light, heat and oxygen. Under these conditions, fats and oils, especially the highly unsaturated omega-3 fatty acids that characterize marine oils, lose hydrogen atoms and become free radicals, and then break down further into small, highly reactive molecules called aldehydes. Aldehydes present in rancid or oxidized oils may contribute to cancer, arteriosclerosis, premature aging and many other adverse conditions.

Speth explains that the term "rancid" refers specifically to the degradation of lipids in meat or fish, an "autoxidation" process "quite distinct from what happens to lipids that are fermented or putrified. ..[E]thnohistoric and ethnographic literature frequently conflates these two processes and as a result can be quite confusing, if not downright misleading."

Speth continues: "The preservative effects of LAB fermentation. . . are invaluable in preventing fats from becoming rancid. For arctic and subarctic people subsisting on diets that were composed almost entirely of animal foods, the large quantities of fatty meat and fish that such a diet demands can be very difficult to dry quickly enough and thoroughly enough to prevent the lipids, most especially the long-chain polyunsaturated fatty acids. . . from turning rancid and spoiling. . . . Such spoilage can actually pose a health risk by giving rise to a number of undesirable and potentially toxic substances in the meat or fish. The most important of these are a class of compounds known as hydroperoxides, unstable oxidation products that can undergo

further breakdown, forming a variety of carbonyl group compounds such as aldehydes and ketones....Fermentation provides an effective means of inhibiting the 'autoxidation' of the lipids that leads to rancidity."²

Thus, among populations that consume high amounts of omega-3 in foods like fish and organ meats, it is the practice of fermentation that protects these fats against rancidity. As explained by Speth: "[A]erobic bacteria in the early stages of putrefaction deplete the supply of oxygen in the tissues, creating an anaerobic environment that retards the production of potentially toxic byproducts of lipid auto intoxidation (rancidity)." In other words, the practice of making foods "rotten" protects the fatty acids they contain from becoming "rancid."

The acceptance or rejection of putrified meat is a culturally learned reaction. Whereas many Westerners react with revulsion to the sight and smell of putrified meat and fish, the latter are common among traditional cultures from the Arctic regions to Africa to the South Pacific. These fermented foods include meat, liver and other organ meats, fish and shellfish, and even hooves and bones. Fermentation techniques include burying in the ground, preserving in bogs, placing in animal stomachs or preserving in sewn-up animal skins.

One putrified food that Westerners do enjoy is rotten milk—predigested, fermented and stored unrefrigerated for many months until it becomes covered with mold. It is called cheese—a delicious, highly acceptable food in the West—but which many Asians regard with disgust. In fact, the stinkier the cheese, the more we prize it—just as the Inuit prize stinky fermented fish. Listen to Inuit elder Mary Tyone talk about a native delicacy: "When we fix salmon head we put it in bucket in ground and we take it out and eat it. . . .Stinkfish, oooh, I love that stinkfish. Smell funny, but it sure taste good."³

Another delightful European fermented food is salami. As Speth explains: "When a body starts to decompose, a forensic scientist would likely refer to what was happening as the onset of 'putrefaction'. . .[A] food scientist dealing with pork sausages *at exactly the same stage of decomposition* would refer to the process as 'fermentation'" [emphasis added].⁴ The practice of making foods "rotten" protects the fatty acids they contain from becoming "rancid."

HYDROLYSIS VERSUS OXIDATION

As we have seen from the above discussion, "oxidation" refers to the breakdown of fatty acids into toxic components like aldehydes and ketones. This is not the same as hydrolysis, which refers to the chemical breakdown of triglycerides into individual free fatty acids and glycerol.

Hydrolysis of triglycerides is what happens during digestion. When we eat fats, our bodies produce bile, which breaks down the triglycerides into individual or "free" fatty acids. Since fermentation is basically a digestive process, we can expect to find a lot of free fatty acids in fermented fish products like fermented cod liver oil.

Triglycerides are composed of three fatty acids joined to a glycerol molecule, which is the way fats occur in nature. Typically, the middle fatty acid is the most unsaturated of the three, that is, the most vulnerable to oxidation. When a triglyceride is hydrolyzed into individual fatty acids, the middle fatty acid no longer has the protection of the other fatty acids on either side of it. The fish oil industry claims that the presence of free fatty acids in a fish oil is a sign of rancidity, but it is only the sign of *potential* rancidity. If the free fatty acids in the product are protected in some way, there will be no oxidation after hydrolysis.

In a fermentation process that involves no heat, and in which oxygen is removed from the product by lactic acid bacteria, the free fatty acids will be largely protected from oxidation.

Since this protection is absent in most fish oils, the oil refining industry removes the free fatty acids by treating the oil with caustic soda (sodium hydroxide), which converts the free fatty acids into insoluble soaps. After a reaction time of around thirty minutes, with slow stirring and a temperature of around 170 degrees F (hot enough to affect adversely the omega-3 fatty acids still bound as triglycerides), the industry then uses centrifugation to eliminate the water fraction and washes the oil with water to remove the remaining soap.

In addition to the protective environment afforded by lactic acid bacteria, a number of antioxidants are formed or released during the fermentation process. For example, polyphenols are natural antioxidants that occur in seaweeds and other marine algae. Levels of polyphenols in marine algae can reach up to 20 percent of dry mass.⁵ Studies have noted a linear relationship between the polyphenolic content of seaweed

FIGURE 1: Catechol and Catechin



products and their antioxidant capacity, meaning that antioxidant capacity strengthens as polyphenolic content increases.⁶

While fish do not produce polyphenols directly, marine fish such as shad and other small schooling fish eat algae. Cod is an "apex predator," feeding on other fish, including algaeeaters, and so cod accumulates polyphenols in its flesh and oil.

Of the many different polyphenols found in algae, catechol and catechin (Figure 1) are found in nearly all species.

Catechol and catechin exert their antioxidant activity by trapping peroxyl radicals, which perpetuate lipid oxidation.⁷ The resulting compact structure, called an ortho-quinone, puts oxygen into a non-reactive double bond, thus halting destructive free radical chain reactions and giving stability to the oil.

ORAC SCORES

Oxygen radical absorbance capacity (ORAC) is a method of measuring antioxidant, including polyphenol, levels in foods. Since 2012, the USDA has not allowed food companies to list ORAC levels in their products because there is no proof that the compounds producing the ORAC score have any physiological effect once consumed.

While it is true that the dietary polyphenols measured in the ORAC test are poorly con-

TABLE 1. ORAC scores for fermented cod liver oil, other cod liver oils and other high-antioxidant foods

Food ORAC Score (In Trolox equiv., μmol per 100g)

Extra Virgin Olive Oil	372
Carrots, Baby Raw	436
Tea Brewed	1128
Red Grape Juice	1788
Nuts, Almonds	4454
Raw Blueberries	4669
Fermented Cod Liver Oil*	4333-7494
Brand A Cod Liver Oil*	221
Brand B Cod Liver Oil*	2838
Brand C Cod Liver Oil*	404
Brand D Cod Liver Oil*	993

*University of Nebraska test data.

served in the body (less than 5 percent), they do have an effect in the foods themselves—protecting fatty acids from degradation.

An analysis by the Department of Food Science and Technology at the University of Nebraska found that the ORAC score of fermented cod liver oil was especially high, not only in comparison with other foods but compared with other brands of cod liver oil (see Table 1).⁸ The measured antioxidants are naturally occurring, from marine algae and the fermentation process; they are not antioxidants added after extraction of the oil.

In a recent study, researchers heated four brands of cod liver oil, including one brand of fermented cod liver oil, to 180 degrees C for up to ninety minutes. The concentrations of lipid oxidation products (LOPs), namely aldehyde, increased in each of the oils, with the lowest level of increase in the fermented cod liver oil. The "enhanced peroxidative resistivity" of the fermented cod liver oil product over the non-fermented samples was ascribed "to much higher levels of chain-breaking antioxidants (reflected by elevated ORAC values), and particularly aldehydic LOP-neutralizing amines" in the fermented cod liver oil.⁹

CAN COD LIVERS BE FERMENTED?

A legitimate concern about fermented cod liver oil is whether livers can even be fermented. Of course, it is not the oil that is fermented, but the livers, so that during the fermentation process the oil is released from the cells.

Cod livers contain between 1-2 grams of carbohydrate for every 100 grams of liver. The

question is, can a food with such a low level of carbohydrate undergo lactic-acid fermentation? (It should be noted that proteins and lipids are also affected by the fermentation process, the former converted to biogenic amines and ammonia, the latter to free fatty acids and glycerol.)

The answer is yes. Typical fermentation processes require only 0.62 grams of carbohydrate per kilogram to lower the pH by 0.1 pH units. Based on a finding of 1 to 2 grams of carbohydrate per 100 grams of liver, this would give rise to a total drop in pH between 1.6 and 3.2 pH units. Assuming that cod livers have a neutral pH of approximately 7.0, the natural levels of carbohydrate they contain would be sufficient to lower the pH of the final fermented product to between 3.8 and 5.4 pH units.¹⁰

The process of extracting the oil from the cod livers begins with the addition of frozen cod livers to fermentation vats along with a starter culture and salt. The vats are then sealed and allowed to ferment. This process produces three distinct layers in the vats. At the bottom of the vat is the water that is separated from the cod livers during fermentation. The solid liver material and sediment float in the middle. An oil layer forms on top of the solids and sediment.

After the fermentation is complete, the top oil layer is extracted from the fermentation vat and centrifuged to remove all remaining water, sediment and liver material. This process not only removes the water from the oil, but also the water-soluble lactic acid (although traces of lactic, propionic and acetic acid may remain in the oil).

The pH of the water layer (brine) at the end of the fermentation process has been tested by MidWest Laboratories and found to be between 4.8 and 5.04. These pH values fall well within the normal pH levels accepted for the fermentation of raw meat products. According to the United Nations Food and Agriculture Organization (FAO), raw fermented sausages are only moderately acidic with a pH range of 5.0-5.5 and are safe for human consumption. The pH of safe cheese ranges between 4.8 and 6.0. The measured pH of the fermented cod liver oil itself ranges between 5.2 and 6.0.

WHY COD LIVER OIL?

The diet of healthy traditional peoples contained high levels of vitamins A and D from frequent consumption of liver and other organ meats,

PRODUCTION OF EXTRA-VIRGIN AND VIRGIN COD LIVER OIL

EXTRA-VIRGIN COD LIVER OIL (EVCLO): In addition to fermentation, another natural way of removing the oil from cod livers takes advantage of the fact that a slight rise in temperature will cause the livers to release oil. Production of EVCLO begins with placing the livers in a dark, oxygen-free holding tank and then raising the temperature to slightly higher than the ocean temperature. Separation of the oil from the livers then takes place using a decanter, and contaminants are removed by a proprietary cold filtering process. Natural rosemary and full-spectrum vitamin E are added to increase shelf life and prevent oxidation. This process preserves the natural vitamins A and D in cod liver oil.

VIRGIN COD LIVER OIL (VCLO): A description of virgin cod liver oil production has been difficult to obtain. The pre-2010 Now Foods website described the process as including "winterization, distillation, blending, drumming, and bottling...

conducted in a manner that ensures the product is carefully processed to concentrate the healthy long chain omega-3 EPA and DHA fatty acids while removing any unwanted environmental chemicals and retaining the naturally occurring Vitamins A and D.²¹³

In some individuals, the omega-3 fatty acids in cod liver oil may cause a deficiency of arachidonic acid (AA), leading to skin problems, food sensitivities and other undesired effects.

butter and egg yolks from pastured animals, marine oils like seal oil, fish eggs, shellfish and "weird" foods like blood, fish heads, insects and reptiles. It is very difficult for modern peoples to obtain high levels of these vitamins from the Western diet. Even if you eat liver frequently and have a source of butter and egg yolks from pastured animals, it is still difficult to obtain sufficient amounts of these vitamins. As explained by Chris Masterjohn, PhD, cod liver oil "is a valuable and convenient way to obtain vitamins A and D together with omega-3 fatty acids—all nutrients most Americans require in greater levels than they currently obtain through their diets."

Masterjohn explains: "For centuries, cod liver oil has served as a valuable source of vitamins A and D and omega-3 fatty acids. It was a critical component of Weston Price's program for reversing tooth decay, and many practitioners in his day used it to treat eye diseases, rickets and infections. Along with many other physicians, Dr. Price recommended cod liver oil to promote growth and general health in infants and children. Clinical trials proved that cod liver oil use in adults reduced absenteeism and saved millions of dollars' worth of productivity for American industry."¹¹

However, as with any food, cod liver oil in both fermented and unfermented form is not for everyone. Those with a high sensitivity to histamines and other components of fermented foods will prefer the extra-virgin or virgin cod liver oils rather than fermented cod liver oil. Some people are deathly allergic to all seafoods and will need to obtain their A and D vitamins from other foods. In some individuals, the omega-3 fatty acids in cod liver oil may cause a deficiency of arachidonic acid (AA), leading to skin problems, food sensitivities and other undesired effects.

This is because marine oils require balance with animal fats. Animal fats supply omega-6 arachidonic acid to balance the omega-3 fatty acids in cod liver oil. In addition, animal fats supply vitamin K_2 to balance vitamins A and D, and they supply saturated fats to balance and protect the highly unsaturated fatty acids. Fortunately, in the Western diet, the fats of both land and sea are easily available.

RANCIDITY TESTING

The Weston A. Price Foundation contracted with an independent laboratory to test natural (unheated) cod liver oil under various conditions using nuclear magnetic resonance (NMR) testing. Green Pastures, Nutra Pro, Dropi and Rosita are U.S. brands and were ordered anonymously through their respective websites; Amorica, a U.K. brand, was ordered anonymously in the U.K. from the Amorica website.

The five brands of cod liver oil (two fermented, one "virgin" and two "extra virgin") were tested under the following seven conditions:

On opening.

Condition A: After one week, in the dark, at room temperature.

Condition B: After one week, in the dark, refrigerated at 4°C.

SYMPTOMS OF DHA AND ARACHIDONIC ACID (AA) DEFICIENCY¹²

DHA DEFICIENCY

- Numbness and tingling
- Weakness
- Pain
- Psychological disturbances
- Poor cognitive function and difficulty learning
- Poor visual acuity
- Blurred vision
- Poor immunity
- Poor growth
- Inflammation

ARACHIDONIC ACID DEFICIENCY

- Dry, scaly and itchy skin
- Hair loss
- Dandruff
- · Reproductive difficulties in both males and females
- Gastrointestinal disturbances
- Food intolerances
- Kidney disease
- Inability to maintain weight
- Poor immunity
- Poor growth
- Inflammation

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Condition C: After one week, in the light, at room temperature.

Condition D: After six weeks, in the dark, at room temperature.

Condition E: After six weeks, in the dark, refrigerated at 4°C.

Condition F: After six weeks, in the light, at room temperature.

The results are shown in Figure 2.

The testing indicated that all brands are safe on opening and at one week refrigerated if kept in the dark. One brand of extra virgin cod liver oil exhibited some instability at one week at room temperature, both in the light and in the dark. This may be due to high levels of aldehydes in rosemary oil, added as an antioxidant.

The more toxic alpha, beta-unsaturated

aldehydes (Signals 1-4) appear at six weeks in both brands of extra virgin cod liver oil, under all conditions. The worst results appear in both brands of extra virgin cod liver oil at six weeks kept in the light at room temperature.

The less toxic saturated aldehydes (Signals 5, 6, and 7) appear in both brands of extra virgin cod liver oil and both brands of fermented cod liver oil at six weeks kept in the light at room temperature.

In conclusion, all brands of natural cod liver oil are safe on opening and at one week, under various conditions. However, at six weeks, the extra virgin brands of cod liver oil show the presence of toxic unsaturated aldehydes, especially if exposed to light.

Clearly, all types of cod liver oil should be sold in dark bottles and kept in the refrigerator or a dark cupboard. Extra-virgin cod liver oil should be kept in the refrigerator and consumed as soon as possible after opening. Fermented and virgin cod liver oil kept in the dark appear stable at room temperature, even six weeks after opening.

Sally Fallon Morell is the author of the cookbook Nourishing Traditions (1996) and many other titles, including her latest book Nourishing Diets (2017). She is founding president of the Weston A. Price Foundation. Fallon Morell has no financial interest in any company producing cod liver oil.

METHODS FOR COD LIVER OIL TESTING

NMR: High-resolution nuclear magnetic resonance (NMR) spectroscopy is a state-of-the-art technique that involves the exposure of samples to an intense magnetic field causing the nuclei of the molecules to respond by producing an electromagnetic signal with a frequency characteristic of the magnetic field at the nucleus, allowing researchers to identify various components of the sample. NMR offers many advantages over alternative analytical techniques, since it allows the rapid, simultaneous, non-invasive and non-destructive analysis of a wide range of agents present in complex, multi-component samples such as foods, oils, pharmaceutical formulations, health care products and biological fluids such as blood plasma and urine. Data acquired through NMR testing are presented as what is known as a spectrum consisting of a plot of signal intensity versus resonance frequency in parts per million (ppm, a dimensionless unit).

HPLC: High-performance liquid chromatography (HPLC), formerly referred to as high-pressure liquid chromatography, is a technique in analytical chemistry used to separate, identify and quantify each component in a mixture. It relies on pumps to pass a pressurized liquid solvent containing the sample mixture through a column filled with a solid adsorbent material. Each component in the sample interacts slightly differently with the adsorbent material, causing different flow rates for the different components and leading to the separation of the components as they flow out of the column. For oils, HPLC provides readings for peroxide value (PV) or primary oxidation and anisdine value (PA) or secondary oxidation. Another measurement of oxidation is thiobarbituric acid (TBA) and TBARS (a more involved version of the TBA test). The TBARS test is especially problematic for omega-3 oils as the method requires heating the samples for periods of about fifteen minutes. Heating causes peroxidation of polyunsaturated fatty acids, and hence all results derived from this heat-dependent test system are suspect. In addition, the TBARS is not a good technique for products containing phenols or residual proteins.

SPECTROPHOTOMETRY

Spectrophotometry is a tool that provides a quantitative analysis of molecules depending on how much light is absorbed by colored compounds. Spectrophotometry uses photometers, known as spectrophotometers, which can measure a light beam's intensity as a function of its color (wavelength). The spectrophotometer can generate a beam that goes through the sample (mainly transparent liquids). The colored compound in the sample will absorb the energy of the light, then the photometer can detect the absorption level of the light at a certain frequency on the other side. Based on the absorption level of the compound, the quantity of this compound can be calculated. As with HPLC, the sample must be heated to ascertain a TBARS value, so values obtained by spectrophotometry are considered less than reliable.

SPECTROPHOTOMETRY RESULTS FOR FERMENTED COD LIVER OIL¹⁴

PV Peroxide Value:	Very low
PA Anisdine Value:	Very low
TBA Thiobarbituric Acid:	Low
TBARS:	High
Free Fatty Acids:	High
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HOW INDUSTRIAL COD LIVER OIL IS MADE

GRINDING AND PRESSING is the first step in industrial cod liver oil production; the liver mass is then often heated to further separate the oil from the solids.

FILTRATION through carbon begins the refining process. This removes environmental pollutants like dioxins, furans and polyaromatic hydrocarbons (PAHs). This treatment is important for farmed fish and fish caught in highly polluted waters near industrial areas but is not considered necessary for wild fish.

DEGUMMING involves heating the crude oil to 212 degrees F and treating it with phosphoric acid. This removes the "gunk"—compounds like phospholipids, resins, proteins, minerals and other matter in the oil.

ALKALI REFINING or neutralization removes the free fatty acids that have formed during the earlier processing steps. This process produces soapy material that must be removed with water or steam washing, followed by centrifuging.

DRYING removes the moisture from the water washing. Drying involves heat, oxygen and light, which can cause further rancidity.

BLEACHING returns the now-darkened oil to a pale color. This step also removes the dangerous aldehydes that have formed during earlier steps.

WINTERIZATION involves cooling the oil to sub-zero temperature in order to remove the saturated fatty acids, resulting in an oil that has a higher concentration of fragile omega-3 fatty acids. In effect, winterization brings the levels of DHA and EPA back to normal levels since quite a bit of omega-3 has already broken down and been removed.

DEODORIZATION is the most damaging step. Temperatures reach 374 degrees F or higher as steam passes through the oil. This removes aldehydes, ketones, more pigments and compounds that give the oil a fishy smell or taste. This step causes the formation of some *trans* fatty acids in the EPA and DHA. Most seriously, deodorization destroys most of the vitamin D and a large part of the vitamin A naturally occurring in the oil.

MOLECULAR DISTILLATION, often used in place of deodorization, involves even higher temperatures, which can reach 392 degrees F. It removes environmental pollutants and destroys even more of vitamins A and D.

ADDITION OF SYNTHETIC VITAMINS is the next step. Most cod liver oil producers add synthetic vitamin A and vitamin D₃ to replace the range of natural fat-soluble vitamins contained in unprocessed cod liver oil.

ANTIOXIDANTS are always added to conventionally processed cod liver oil for human consumption to protect the oil from further oxidation. These include "natural" antioxidants such as vitamin E tocopherols made from soy and spice oil extracts. The most common synthetic antioxidants are BHA (butylated hydroxyanisole), BHT (butylated hydroxytoluene), TBHQ (tert-butylhydroquinone) and propyl gallate.

ADDITION OF FLAVORINGS to cod liver oil is common, especially citrus flavorings, derived from the peel of lemons or oranges and often containing other proprietary ingredients.

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Getting Informed About 5G

By Katie Singer

ost people consider mobile technologies necessary for school, work and household functioning. Arguing against the technologies' expansion or in favor of their regulation is, therefore, especially challenging. As telecommunications ("telecom") providers begin mapping their plans to deploy 5G—the fifth generation of wireless infrastructure—concerned citizens who do not want 5G "small cell" sites throughout neighborhoods seek constructive action.

In our zeal for electronic things (and now, wireless devices), we have nearly saturated our environment with man-made electromagnetic radiation (EMR). With the advent of 5G, small cell networks will emit microwave radiation around the clock at largely untested frequencies. Each site's electronic gear also poses fire and collapse hazards as well as liability, privacy and security issues. If getting informed is the first step toward constructive action, let's ask: *How did we get to 5G? Why do we need it? How will it affect our health? How (or can) we prevent it?*

Thousands of peerreviewed, scientific studies point to adverse biological effects from electromagnetic radiation emitted by mobile devices and the infrastructure they require.

ELECTRIFICATION AND TELECOMMUNICATIONS

People figured out how to generate, store and transmit electricity about two hundred years ago. After a Danish scientist discovered electromagnetism in 1819, electric developments progressed rapidly, radically changing domestic life, creating entertainment industries and allowing speedy international communication. The telegraph arrived in 1844, the telephone in 1875 and the first power plant in 1882. Radio became available in the 1890s. By 1904, you could buy an electric washing machine, and by 1913, a refrigerator.

Government agencies soon began protecting the new industries. In 1934, Congress created the Federal Communications Commission (FCC). FCC regulations clarify that manufacturers may sell electronic products as long as they do not create "harmful interference" with existing radio or TV broadcasts, a definition that has since broadened to include cellular and Internet services. However, the agency's pro-industry definition of "harmful interference" has never included biological harm, which may be why a 2015 Harvard report called the FCC a "captured agency."¹ Unashamedly, FCC regulations safeguard neither the public nor our environment.

In 1996, Congress passed the industryfriendly Telecommunications Act. Section 704 prohibits municipalities from denying permits to install cellular antennas based on health or environmental concerns. Also in the mid-1990s. to determine whether mobile devices were safe enough to market, engineers filled the head of a two-hundred-and-twenty-pound mannequin with salty fluid, took its temperature and gave it a cell phone for six minutes. Because this dummy's temperature did not change by two degrees Celsius after six minutes-call this a test of immediate, thermal effects of EMR exposure-the FCC has allowed consumers to buy increasingly powerful mobile devices ever since.²

NON-THERMAL BIOLOGICAL EFFECTS

Human organs—including our brains and hearts—function by intricate electrochemical signals. We depend on these signals to digest food, make decisions and know when to sleep. Even at rest, all of our cells have measurable voltage.

It is astonishing, therefore, that the FCC has never recognized or assessed the non-thermal effects of EMR exposure, including the effects of cumulative or combined exposures or potential effects on pregnant women, infants, children, people with medical implants and wildlife. Thousands of peer-reviewed, scientific studies conducted by other parties now point to adverse biological effects from EMR emitted by mobile devices and the infrastructure they require, including "single and double stranded DNA breaks, immune dysfunction, cognitive processing effects, stress protein synthesis in the brain, altered brain development, sleep and memory disturbances, ADHD, abnormal behavior, sperm dysfunction and brain tumors."3

One of the most recent studies was a twentyfive million dollar rodent study conducted by the National Institute of Health's National Toxicology Program, which showed that cell phone radiation increases the risk of brain tumors, heart tumors and DNA damage-and those effects arose from 2G (second-generation) technology first introduced in the 1990s.⁴ Other new studies link heavy, long-term cell phone use (more than two hours per day for more than fifteen years) with elevated thyroid cancer risk.5,6,7 In the U.S., rates for new thyroid cancer cases have increased 3.1 percent per year over the last decade.⁷ New research also shows, cautiously, that maternal cell phone use may be associated with shorter pregnancy duration and increased risk for preterm birth.8

In children, screen-time exposure (different from EMR exposure) harms brain development and can lead to addiction, eye problems and aggressive behavior.⁹ This has not stopped schools from giving tablets to young children and replacing teachers with screens.¹⁰ Research also indicates that digital technologies are causing adult attention span to dwindle.¹¹

5G AND THE INTERNET OF THINGS

Alongside the ample evidence of biological harm from wireless technologies, there are mounting problems with security and privacy. Other downsides include the technologies' exponentially increasing and unsustainable energy demands, toxic waste from the manufacture of electronic devices and significant disruptions of the labor market due to artificial intelligence (AI), with machines making decisions.

Nonetheless, because services that include a wireless component are minimally taxed and regulated (compared to wired services), wireless services are extremely profitable to telecom corporations, and the deployment of more wireless technologies continues apace. Machineto-machine communication is becoming more widespread as technologies operate via the Internet of Things (IoT). Entertainment, GPS and self-driving vehicles operate through the Cloud, as do a growing number of educational, medical and banking systems. Utilities have also deployed millions of "smart," wireless transmitting meters to track electricity use.

All of these developments are generating increased data traffic—and according to the telecom industry, more data traffic requires more infrastructure. Promoters of 5G and the IoT tell us that we "need" 5G so that we can download a video in less than ten seconds, receive a message on our phone from a chipped diaper letting us know that our baby needs changing or get messaged by a chipped orange juice carton telling us that it is time to replenish. With 5G and the IoT, a toilet will even be able to analyze stool samples and send the data to your doctor.

Let me unpack what this means for municipalities and households.

THE ROLE OF FIBER OPTICS

Until 2016, businesses and households considered "fiber optics to the premises" as

the safest, fastest, most energy-efficient and most secure way to access the Internet. Often encased in protective conduit, fiber optic cables rely on pulsing light on thin strands of glass fiber and carry multiple frequencies for telecommunications. Effectively, fiber cables offer unlimited bandwidth.¹² They do not emit radiofrequency (RF) radiation. They also tend to withstand weather catastrophes better than wireless systems.

What the public may not realize is that wireless telecom infrastructure is not entirely wireless. For years, wireless providers have run fiber optic cables from their core network to the large towers that support cellular antennas. To deliver voice, Internet and data wirelessly, fiber optics' light waves convert data (via a digital electronic process) to RF waves. The system's "last hop" (from the cell tower to individual, mobile devices) is delivered wirelessly.

In the same way that radio stations pay the FCC a licensing fee for a frequency band on the electromagnetic spectrum, telecom corporations pay the FCC to lease frequencies that deliver their wireless services (voice, Internet and data). In the last few decades, however, the available spectrum has nearly filled up. In the iPhone's first three and a half years, AT&T alone claimed that its data traffic grew eighty-fold!¹² 5G technology (which, remember, provides wireless access) combines fiber optics and millimeter RF waves (a previously untapped portion of the spectrum) and cannot operate without fiber optics. The industry views this combination as the only way to create more usable frequencies for our increasing wireless data traffic.

GET AN ON-OFF SWITCH

I have heard from many households that when they get Internet service, the provider installs an antenna on their roof that effectively makes it a Wi-Fi hotspot—without the customers' permission. I have also heard that in some areas, only wireless Internet service is available.

In some instances, if a family turns their Wi-Fi off while they sleep (as many physicians advise), only a repair person from the Internet provider can restore their Internet access. Certainly, every customer should be able to turn off the Wi-Fi at their own home and turn it back on at will. Service providers should be obliged to explain how to do this.

An electrical engineer with a medical implant told me that even when his Internet provider said that his Wi-Fi was shut off, his meters told him that it was on. "Every person deserves the right not to be exposed to EMR. Every household deserves the ability to shut off Wi-Fi with a simple switch," this engineer says, plainly. "Probably," he adds, "these rights need FCC and FDA [Food and Drug Administration] mandates."

Finally, telecom providers should also be obliged to explain how to encrypt Wi-Fi and cell service so that customers can protect their privacy and prevent others from using or eavesdropping on their Wi-Fi.

Wireless services are extremely profitable to telecom corporations. By January 2019, over half of U.S. states had passed legislation to streamline 5G's buildout.

STREAMLINING 5G INFRASTRUCTURE

Beginning in 2016, the American Legislative Exchange Council (ALEC), a Koch brothers-backed group that is an advocate for industry interests, wrote sample legislation to "streamline" (ease) the buildout of 5G. These bills promote installing fiber optic cables to densely deployed small cell sites on public rights-of-way-such as utility poles and school rooftops-and on federal and state lands (see Figure 1). At the same time, they severely restrict local zoning review requirements for installing telecom facilities, including the distributed antenna systems (DAS) used to provide coverage on campuses, inside large office buildings or in places with large crowds that expect wireless services.

By January 2019, over half of U.S. states had passed ALEC-inspired legislation to streamline 5G's buildout.¹³ Two federal Acts passed in 2017-2018—the MOBILE NOW Act and the DIGIT Act—also restrict local authority over installation of telecom infrastructure. Further, the FCC has enacted rules that restrict states' and municipalities' ability to use the 1970 National Environmental Policy Act (NEPA) and the 1966 National Historic Preservation Act in zoning and siting reviews for telecom facilities. Finally, the FCC shortened the time that municipalities have to respond to telecom permit applications from ninety to sixty days.

Taken together, these mandates prohibit municipalities from enacting a moratorium on 5G and small cell site infrastructure. At the same time, they severely restrict the amount of money that a municipality can charge telecom providers for accessing publicly owned rightsof-way. They effectively remove normal zoning requirements such as neighborhood notification and public hearings regarding installation of telecom facilities.¹⁴

PUSHBACK BY CITIZENS AND MUNICIPALITIES

A national coalition of nearly one hundred municipalities is suing the FCC, arguing that the FCC lacks the statutory authority to issue such restrictive regulations.¹⁵

In addition, California Congresswomen Anna Eshoo and Jackie Speier have introduced House Resolution 530, the Accelerating Wireless Broadband Development by Empowering



FIGURE 1. Planned deployment of small cell sites on public rights-of-way

This map shows Crown Castle's plan to deploy distributed antenna sites (small cells) on public rights-of-way in a Maryland suburb. Other carriers are expected to deploy yet more cell sites.

Local Communities Act of 2019. This legislation would overturn FCC regulations that limit the ability of local governments to regulate the deployment of 5G wireless infrastructure. HR 530 would provide "that certain actions by the Federal Communications Commission shall have no force or effect."¹⁶

HB 530 currently provides our best chance of voiding the FCC rules that prohibit municipalities from enacting moratoria on 5G. As of April 25, 2019, the bill, which protects state and municipal authority to make land use decisions and manage public rights-of-way, has forty-six co-sponsors.¹⁷

SIGNAGE ABOUT RF EMISSIONS

Antennas that emit RF radiation, including 5G small cell sites, must comply with Occupational Safety and Health Administration (OSHA) and FCC safety guidelines.^{18,19} However, several people familiar with federal regulations told me that telecom service providers' obligations to follow OSHA and FCC regulations operate entirely by the honor system—there is no OSHA or FCC oversight.

Language in a recent agreement between a city and a telecom provider states that "Caution sign text must specify that a distance of nine feet must be kept from the antenna. . . . The sign will inform the person of the potential for high exposure levels and provide a phone number to call and arrange for power to be removed from the antennas for the duration of work." There are two things to note with regard to this language. First, such a sign addresses electricians, tree pruners, roofers and others who might work near antennas, but it does not address children playing near a backyard utility pole, pregnant women, people with medical implants or individuals whose offices, bedrooms or kitchens might be within nine feet of said antenna. Second, there is no federal agency with a budget or a staff dedicated to monitoring RF emissions or enforcing protective signage.

Could municipalities "force" telecom corporations to post the notices that OSHA and FCC regulations require? Before telecoms deploy 5G small cell sites, concerned citizens might consider banding together with electricians, tree pruners, roofers and other workers to urge their municipality to insist that telecom providers post signs—readable from a distance—that advise workers to keep at least nine feet from the antenna(s); provide a phone number to call when workers need the antennas turned off so that they can work within levels deemed safe by OSHA; and note the antenna's frequency and wattage. The goal here is to protect workers *before* they are exposed to EMR emissions at levels prohibited by OSHA and FCC. Signage might also increase public awareness of the antennas' EMR emissions.

Even in the absence of any regulations to protect vulnerable groups such as children or pregnant women, requiring signage that alerts workers to EMR emissions should be within a municipality's legal limits. If a municipality opts not to require signage to protect workers from a telecom provider, that's an attentiongrabbing story.

In 2013, well before 5G, the underwriter A.M. Best Company estimated that two hundred and fifty thousand workers come into close contact with cellular antennas every year. It warned other insurers that at close range, cellular antennas act "essentially as open microwave ovens," and that health effects in exposed workers "can include eye damage, sterility and cognitive impairments."²⁰ The president of the International Brotherhood of Electrical Workers (IBEW), Edwin Hill, wrote in a September 11, 2013 comment to the FCC, "We believe that many of our members have been exposed to levels of RF radiation in excess of the FCC limits." Hill further stated, "When there is a hazard, the hazard creator has a duty to warn others against the hazard."21 He suggested that telecom corporations that are licensed to deploy transmitting antennas should be responsible for ensuring that IBEW members "know the unique physical boundaries at every work location so as not to exceed the referenced RF exposure limits."

Concerned citizens might also urge their zoning and land use officers to insist that telecom service providers remeasure RF emissions if or when they change the antennas' RF transmissions—as FCC regulations require—and Telecom service providers' obligations to follow OSHA and FCC regulations operate entirely by the honor system. post these measurements on municipal websites. BEFORE ACTING, KNOW YOUR TERMS

Communities seeking the option of "fiberto-the-premises" (FTTP) should be aware that the industry may use this term when they actually will only deliver "fiber-to-the-curb" (FTTC), "fiber-to-the-antenna" (FTTA) or "fiber-to-the-wireless" (FTTW). Telecom providers may also use the term "fixed wireless Internet" to describe connecting fiber to small cell sites.

For safer, more secure and more reliable telecommunications, we need wired infrastructure (fiber or copper) delivered to a wired connection in each premises. To move toward this end, we need to repeal the federal acts and municipal mandates that effectively eliminate local authority over telecom facilities. HB 530 may serve as a model.

BEFORE ACTING, KNOW YOUR LAWS

Recently passed FCC orders, federal acts and state laws that prohibit restrictions on fiber delivered to public rights-of-way and promote wireless service from public rights-of-way to individual users may have other impacts detrimental to community interests. For example, advocating municipally owned fiber-to-the-premises may unintentionally divert public funds to deliver fiber to small cells. Such diversions of public monies would reduce the industry's costs to build 5G networks.

Some communities may have grants to install power lines, cables and fiber optics underground. If you access these grants, be sure that the fiber is delivered all the way to each building or home.

INTERNATIONAL ACTIONS TO HALT OR DELAY 5G

Internationally, some municipalities and political parties have called for proof of safety before deploying 5G small cell sites. Municipalities that have halted 5G development because of health concerns include Brussels, Belgium; Geneva, Switzerland; a municipality of Rome, Italy; and others.²²

In Australia, the Health Australia Party (HAP) has outlined an EMR pollution policy²³ that supports initiatives including:

- Adopting the precautionary approach regarding exposure to electromagnetic fields
- Designing, building and wiring buildings so as to reduce exposure to electromagnetic fields
- Requiring that new radiation-emitting technologies, including 5G, be shown to be safe for all members of society before their introduction to the market and rollout across the country
- Requiring all radiation-emitting devices to carry the notice: "This device emits radiofrequency radiation—use with caution"
- Carrying out a public education campaign informing people about safer technology use.

FEDERAL, STATE AND LOCAL ACTIONS

There are a number of actions that you can take right away. First, to prevent the telecom industry from hijacking fiber for 5G, we need to repeal the federal legislation—specifically, the 1996 Telecommunica-

IMPACT OF ELECTRONIC TECHNOLOGIES ON AGRICULTURE

- 1. EFFECTS ON POLLINATORS: RF radiation emitted by cellular antennas and devices disrupts pollinators' cryptochromebased navigation. Cryptochrome is a magnetically sensitive protein (used to determine magnetic north) located in pollinators' eyes. If it were only pesticides, the Varoa mite or harsh winters that were causing bee colony collapse, we would see ill or dead bees. A hive's disappearance signals a navigational issue.²⁴
- 2. TOXIC WASTE: The ores (such as cobalt, copper, lithium and quartz) used in electronics require washing that takes water from farms and generates toxic waste that further hinders farming.^{25,26} Cooling systems used by data centers also require water (that can't go to farmers). In 2014, the National Security Administration's Utah data center consumed 1.7 million gallons of water per day.
- 3. LOSS OF FARMLAND: To maintain our electricity-dependent lifestyles, solar and wind "farms" now cover what had been farmland.
- 4. LOSS OF KNOW-HOW: Using artificial intelligence (AI), computer-laden tractors now can determine a parcel of land's mineral and moisture content, expected weather and the seed, herbicide, pesticide and fungicide needed to yield the most lucrative harvest. Overreliance on AI for these metrics will ultimately deprive farmers of the innate and experience-driven know-how they have traditionally possessed.²⁷ In addition, the tractor's computers require electricity-reliant wireless access networks, which in turn transmit EMR that disrupts pollinators' navigation.
- 5. WEATHER: According to scientists from NASA and other agencies, 5G operations in the 24 gigahertz (GHz) band could interfere with weather forecasting. This is because scientists can only measure water vapor accurately in the 23.6–24 GHz band; adjacent commercial operations in this band "will result in a partial-to-complete loss of remotely sensed water vapor measurements."²⁸ By and large, weather forecasters welcome 5G, but not in the 24 GHz band.
tions Act—that deregulated wireless services and separated wireless and wired systems. In addition, petition members of Congress to pass HR 530, which would repeal FCC orders that deny local authority over 5G telecom facilities.

If your state has not yet passed a streamline bill, act quickly to prevent one from passing. If your state has passed a streamline bill, seek to repeal it. At both the state and municipal levels, HR 530 could serve as a model for repealing local legislation that has streamlined deployment of telecom facilities. Congress will also need to allow municipalities to enact moratoria on 5G deployment if they choose. We need legislation that requires firm precautionary due diligence on 4G and 5G engineering and that protects local authority, public health and our environment.

Locally, get your municipality to join the National League of Cities' efforts to oppose bills that further decrease local authority over telecom facilities. Join with rooftop workers and urge your municipality to insist that telecom providers post warning signs about RF emissions.

At home, maintain (or restore) wired services as long as you can. If you stick with Wi-Fi, learn how to unplug and keep the Wi-Fi off at night for at least twelve hours (see "Get an on-off switch"). It would also be wise to wait at least four years to upgrade any new device or service. Finally, do not allow children access to electronic devices until they have mastered reading, writing and math on paper.

Katie Singer presented her concerns about the Internet's footprint at the United Nations' 2018 Forum on Science, Technology & Innovation. With SteinerBooks' recent publication of Our Web of Inconvenient Truths: The Internet, Energy Use, Toxic Waste & Climate Change, Singer has launched the Campaign to Reduce Our Internet's Footprint (www.ourweb.tech/ campaign). Her other books include An Electronic Silent Spring (about electronic technologies' health and environmental impacts, available in Korean), Honoring Our Cycles: A Natural Family Planning Workbook and a novel, The Wholeness of a Broken Heart. A consultant with the EMR Policy Institute, she speaks internationally. Visit electronicsilentspring.com and ourweb.tech.

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Health Benefits of Ketones and the Ketogenic Diet

By Jack Williamson Cameron

In lucose is the primary source of energy in a normal diet. Ketones are an alternative energy source that is more efficient than glucose and can provide many health benefits. Although the acknowledged clinical benefits of ketones have mostly centered on neurons, studies have found that ketones provided as fuel also result in general improvement of muscle function¹ and may suppress appetite and aid in weight loss.

Ketones are water-soluble molecules. There are three types: acetoacetate and beta-hydroxybuterate, and their breakdown product, acetone. Ordinarily, the liver produces a small amount of ketones in the morning following an overnight fast when glucose has been depleted. Ketone production by the liver from fatty acids can be increased by maintaining a high-fat, lowcarbohydrate ketogenic diet or by consuming medium-chain triglycerides derived from coconut oil. The ketogenic diet, which was developed nearly one hundred years ago as a treatment for epileptic seizures, shifts energy production from primarily glucose to primarily ketones. In the classic ketogenic diet, carbohydrate and protein consumption are restricted to 20 to 30 percent of calories, while 70 to 80 percent of calories comes from fat.

CLEANING OUT DAMAGED CELLS

Autophagy is a detox process your body undergoes when glucose is depleted to clean out damaged cells and regenerate new ones. The ketogenic diet promotes starvation-induced autophagy that takes place in the liver and kidney and plays an essential role in ketone production to maintain energy balance.² A protein called p62 becomes activated to induce autophagy. Increasing lines of evidence suggest that autophagy is required for many mechanisms that mediate human lifespan extension, such as caloric restriction.

In addition to helping to clear damaged cells from the body, autophagy clears senescent cells

that serve no functional purpose but still linger inside tissues and organs. The reason it is so important to remove both senescent and damaged cells is because they can trigger inflammatory pathways and contribute to various diseases such as cancer, neurodegeneration, cardiomyopathy, diabetes, liver diseases, autoimmune diseases and infections.

Stimulation of autophagy generally improves cardiac function by removing accumulated misfolded proteins, dysfunctional mitochondria and damaged DNA, thereby improving the overall cellular environment and alleviating aging-associated pathology in the heart. Considerable evidence also points to moderate up-regulation of neuronal autophagy as a rational strategy for prevention of neurodegenerative disorders. Hence, autophagy may mediate some of the neuroprotective benefits of ketogenic diets.

While the ketone production and active autophagy that occur during a ketogenic diet are highly beneficial, continuously maintaining a very low-carbohydrate ketogenic diet—such as a carbohydrate intake as low as 5 percent of calories—can result in vitamin and mineral deficiencies due to inadequate intake of vegetables. Thus, when undertaking a ketogenic diet, an extremely low carbohydrate intake of 5 percent of calories should be avoided. Ketogenic diets that contain around 20 percent of The reason it is so important to remove both senescent and damaged cells is because they can trigger inflammatory pathways and contribute to various diseases.

ARTICLE SUMMARY

- Although glucose is the primary source of energy for the human body, ketones are an alternative energy source that is more efficient and can provide many health benefits.
- Small amounts of ketones are produced by the liver in the morning after depletion of glucose following an overnight fast.
- It is possible to significantly increase liver ketone production by maintaining a low-carbohydrate, high-fat ketogenic diet or by consuming medium-chain triglycerides (MCTs) derived from coconut oil. Daily consumption of two tablespoons of ketogenic caprylic and capric acid from coconut oil provide the equivalent of an estimated 8 to 9 percent of brain energy.
- Brain glucose absorption declines with age, but brain ketone absorption remains unchanged. The age-related decline in brain absorption of glucose can be offset by ketones from a ketogenic diet or MCT oils.
- Ketones improve cognitive function in the young and healthy as well as in the elderly and those with Alzheimer's disease.
- A ketogenic diet or exercise can help the body clean out damaged and senescent cells and regenerate new ones. This process of cellular clean-up (called autophagy) is a key to preventing inflammation and improving one's health and lifespan.
- The decline with age of NAD+ (an activated form of vitamin B3 essential for cellular energy production) plays a role in age-related disease. Ketone-based energy production results in significantly increased NAD+, which activates enzymes that have clinical potential in the treatment of many diseases of aging.

Ketones can replace brain glucose energy deficits in cognitive impairment and Alzheimer's disease. calories as carbohydrates should be adequate to prevent micronutrient deficiencies. A recent article on carbohydrate needs suggested "an initial carbohydrate intake target of 100 grams per day"—about 20 percent of calories.³ (There are about 50 grams of carbohydrates in one potato, one sweet potato, one slice of bread, one serving of cooked oatmeal and one serving of cooked rice.)

Other strategies to induce autophagy and produce ketones while avoiding the problems of nutrient deficiencies that may occur during a continuous ketogenic diet include engaging in intermittent fasting (limiting food intake to four to eight hours per day) or undertaking a ketogenic (high-fat, low-carbohydrate) diet for eighteen to twenty-eight hours just one or two days per week. Autophagy can also be activated by intense exercise. Certain foods, including turmeric, ginger, ginseng, elderberries, green tea and coffee help activate autophagy, and it can be helpful to consume fats before carbs.

CAPRYLIC AND CAPRIC FATTY ACIDS

Ketones are produced by the medium-chain triglycerides (MCTs) caprylic acid (C8) and capric acid (C10), which comprise about 15 percent of coconut oil. Caprylic acid produces about 2.7 times more ketones than capric acid. These medium-chain triglycerides are widely available either as 100 percent caprylic acid or as a mixture of caprylic and capric acids. Two tablespoons of the mixture of caprylic and capric acids are equivalent to 8 to 9 percent of brain energy. I usually use caprylic MCT oil.

The use of medium-chain triglycerides for ketone production has fewer side effects and produces more ketones than the ketogenic diet. A study that compared ketogenic diets that used long-chain fatty acids (LCFAs), the kind in butter and meat fats, with a ketogenic diet that used the medium-chain triglyceride caprylic acid found that the diet that used MCTs produced twice as many ketones as the diet using LCFAs.⁴

A couple of studies suggest that the ketogenic caprylic and capric medium-chain fatty acids may activate autophagy. A recent study demonstrated that increased dietary mediumchain fatty acids (MCFAs) boosted the MCFA/ LCFA ratio, restored suppressed autophagy and mitigated nonalcoholic steatohepatitis (NASH), a type of nonalcoholic fatty liver disease.⁵ However, MCTs do not deplete glucose and will not activate autophagy to the same extent as a ketogenic diet or exercise.

BRAIN SUPPORT IN LATER LIFE

Alzheimer's disease affects about five million people and Parkinson's disease about five hundred thousand in the United States. By age group, Alzheimer's affects about 2.5 percent of sixty-five-year-olds, rising to 30 percent of those over eighty-five years of age.

Although the brain relies on blood glucose as its main energy source, research shows that glucose uptake is lower in the frontal cortex of people over sixty-five years old, "despite cognitive scores that are normal for age."⁶ In fact, several studies have shown a 10 to 15 percent lower brain glucose uptake in the elderly, a deficit that increases to 20 to 25 percent in individuals with Alzheimer's disease.

Whereas uptake of brain glucose decreases in the cognitively impaired, ketone uptake remains similar to that of cognitively healthy, age-matched controls. Ketones can therefore replace brain glucose energy deficits in cognitive impairment and Alzheimer's disease.⁶

In a 2013 study, eight healthy young adults took thirty grams per day of MCT oil for three weeks.⁷ The researchers reported that the MCT supplementation protocol "was mildly and safely ketogenic and had no side effects in healthy humans on their regular diet." They also estimated that this degree of ketonemia (increased circulating ketones) contributed up to 8 to 9 percent of brain energy metabolism.

In a 2015 study, patients with mild cognitive impairment received either fifty-six grams of medium-chain triglycerides daily or a placebo for twenty-four weeks.⁸ The MCT dose provided 18 percent of the brain's energy needs. After measuring serum ketone levels and carrying out cognitive assessments, the researchers found that intake of MCT oil increased serum ketones and improved memory; intake of a placebo did not show improvement of any of the cognitive measures tested. Elevation of ketones may offer neuroprotection in the treatment or prevention of both Alzheimer's disease, where therapy is lacking, and Parkinson's disease, where therapy with L-dopa is time-limited. Up to ninety grams per day of C8 and C10 MCT oil can safely achieve nutritional ketosis to compensate for deteriorating brain glucose in aging.

NAD+ AND CELLULAR ENERGY

Ketones increase an activated form of vitamin B3—called NAD+—which is essential for cellular energy production.⁹ The full name for this coenzyme is nicotinamide adenine dinucleotide. NAD+ is a ubiquitous coenzyme that functions primarily as an electron carrier of oxidoreductase in multiple redox reactions. Redox reactions are a primary component of energy creation. Diverse lines of evidence place NAD+ at the center of metabolic health and disease. Notably, both NAD+ homeostasis and its metabolism are thought to play critical roles in regulating autophagy.¹⁰

During cellular energy production, NAD+ is reduced to NADH (another form of NAD). However, ketone-based energy production reduces 64 percent less NAD+ to NADH than glucose-based energy production. This results in significantly increased NAD+, decreased NADH, and an increased NAD+/NADH ratio—with more oxidized molecules available for bioenergetic demands.

A ketone-induced increase in the NAD+/ NADH ratio also activates downstream signaling pathways that result in an increase in the seven beneficial mammalian sirtuin enzymes enzymes "associated with major benefits such as longevity and reduced inflammation."⁹ The sirtuin enzymes have "clinical potential" in treatment of a variety of conditions,¹¹ including not just dementia and Parkinson's disease but also diabetes, cardiovascular disease, osteoporosis, arthritis, epilepsy and nonalcoholic fatty liver disease. Thus, "increasing NAD is a coveted therapeutic endpoint."⁹

NAD+ levels decline markedly with age, creating an energy deficit that decreases the body's ability to retain youthful function. By age fifty, a person may have only half the NAD+ as in their youth. By age seventy, NAD+ levels drop to 25 percent of that expressed in youth. This decline appears to play a crucial role in the development of metabolic dysfunction and age-related diseases.

Thus, therapy with ketones can enhance brain health and increase overall health via mechanisms related to NAD+ that render cells more resilient against DNA damage and a host of other insults. In short, ketone-induced increases in brain NAD+ serve as a rapid and enduring strategy to halt or even reverse disease progression.

NUTRITIONAL KETOSIS AND THE HEALTHY BRAIN

It is now apparent that the increase in the NAD+/NADH ratio that occurs during energy production by ketones is the primary mechanism behind the beneficial effects of increased circulating ketones.⁹ These effects may also be of benefit to healthy individuals.

A recent study demonstrated an increase in the NAD+/NADH ratio resulting from nutritional ketosis in twenty-five healthy young men and women.¹² Study participants were given a single dose of ten grams of MCT oil (60 percent C8 and 40 percent C10), which resulted in significant changes in NAD metabolic levels

INCORPORATING COCONUT OIL IN THE DIET

The body can use coconut oil for energy more rapidly and efficiently than any other fat source. Consistent intake of coconut oil (along with other healthy fats, such as butter, cream, lard, egg yolks and meat fats) provides vital nourishment to every cell in the body and supports optimal brain, hormonal, immune and metabolic function.

There are many easy ways to incorporate coconut oil into your diet. You can add coconut oil to smoothies, put it in hot oatmeal, use it in mayonnaise or salad dressings (in combination with olive oil), add it to mashed potatoes or use as a spread on sourdough toast. To make an easy breakfast smoothie (one serving), combine 1/2 cup fresh or frozen berries in a blender or food processor and process to a puree; add 1 cup plain whole yogurt or kefir, 2 pastured egg yolks and maple syrup (to taste) and slowly add 1 tablespoon warm coconut oil.

Coconut oil is also a healthy cooking oil, remaining stable under moderate cooking temperatures. Use coconut oil as a cooking fat in scrambled eggs, sautéed vegetables, soups, curries (along with coconut milk), sautéed seafood or rice.

Ketoneinduced increases in brain NAD+ serve as a rapid and enduring strategy to halt or even reverse disease progression. in the brain. Specifically, the MCT oil increased NAD+ by 3.4 percent and reduced NADH by 13 percent, producing an 18 percent increase in the NAD+/NADH ratio. These results provide clues as to how nutritional ketosis might contribute to the preservation of brain health. It is reasonable to expect that fifty to ninety grams per day of MCT oil may more than double the NAD+/ NADH ratio, with no adverse side effects.

NAD PRECURSORS

Pharmaceutical companies are currently manufacturing and selling supplements that contain NAD+ precursors (such as nicotinamide or nicotinamide riboside) with the intent of increasing endogenous NAD+ levels and enhancing metabolic resilience. These outcomes may also be achieved physiologically by ketogenic strategies. Moreover, while both NAD supplements and ketogenic MCTs can increase serum NAD levels, the MCTs also provide an alternative brain energy source for those who have inadequate absorption of brain glucose. Further, the ketone-producing MCT oils have been found to have many other benefits including improved muscle and cognitive function.

CONCLUSIONS

The health benefits of ketones can be optimized through intermittent use of the ketogenic diet together with daily use of MCT oil. Using the low-carbohydrate, high-fat ketogenic diet one or two days a week will establish autophagy that clears damaged cells from the body, thereby improving health and increasing lifespan. Limiting the ketogenic diet to no more than two days a week avoids the adverse effects that are possible with a very low-carbohydrate ketogenic diet, which can result in nutrient deficiencies.

Daily consumption of one to four tablespoons per day of ketogenic MCT oil, best taken several hours apart, will provide a variety of health benefits. To summarize:

- Ketones from MCT oil will offset possible brain glucose deficiency in the elderly and in those with Alzheimer's disease.
- 2. Ketones will improve cognitive function in those with normal brain function.

3. Ketones from MCT oil will increase energy-producing NAD+, thereby increasing the seven NAD-dependent sirtuin enzymes. These enzymes, associated with longevity and inflammation, have clinical potential in the treatment of diabetes, cardiovascular disease, dementia, osteoporosis, arthritis, Parkinson's disease and numerous other conditions.

Altogether, an intermittent ketogenic diet, together with a daily intake of ketogenic MCT oil, can improve cognitive and muscle function and provide remarkable health benefits. My wife and I are in our eighties. We normally eat a Weston Price-style Wise Traditions diet, take no drugs of any kind and are in good health for our age. We take ketogenic caprylic MCT oil daily to extend our good health.

Jack Cameron, a professional engineer with a master's degree in environmental engineering, worked in the design of water and wastewater systems until his retirement. Jack became a member of the Weston A. Price Foundation in 2006. Jack and his wife Patricia, who have been married for more than sixty years, have endeavored to maintain a diet that compensates for age-related changes in nutritional needs while remaining consistent with WAPF dietary recommendations.

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Ukraine, Paradise of Nutrient-Dense Traditional Foods—For Now

By Michael Merrill

iver cake and colostrum cake—these are real foods that Ukrainians eat on a regular basis. I didn't believe it either until I saw it with my own eyes. However, I immediately noticed some contradictions. For example, one of my first nights in Ukraine, my native Ukrainian girlfriend and I watched a man in a suit eat a whole plate of sliced lard—and wash it down with a soda. Ukrainians usually bake their colostrum cake with loads of white sugar. And the traditional Ukrainian sit-down chain restaurant serves liver and brains. . .fried in vegetable oil!

Ukraine is home to some of the most beautiful women in the world, but how long will that last with modern foods slowly gaining more popularity? In this article, I am going to uncover the nourishing traditions of Ukraine before they vanish. Many parents have their babies suck on pieces of lard instead of a pacifier!

BREAD BASKET OF EUROPE

Ukraine's capital city, Kiev, is over fifteen hundred years old. In most Slavic languages, the word "Ukraine" translates to "borderlands." Throughout history, many different cultures have influenced the lands of Ukraine, ranging from Western and Slavic cultures to the nomadic horse people of the Eurasian Steppe.

Ukraine has some of the most fertile farmlands in the world, earning it the nickname, "the bread basket of Europe." The Ukrainian flag is even composed of two vertical strips of blue on top of gold,

which represent blue skies and fields of golden wheat. Ukraine's *extremely* fertile soil, called "chernozem," is a deep black color found only in the Eurasian steppes and North American prairie lands. During World War

II, Hitler took train loads of Ukraine's soil back to Germany for study, and to this day, there is a black market for the valuable soil.

Although Ukrainians use this very fertile soil to produce foods of greater nutrient density, the soil qualities do not protect them from modern diseases when they begin shifting toward modern foods. Sugar, vegetable oils and nonsourdough grains are the three biggest foods that wreak havoc on Ukrainian health. Today, it would be extremely difficult to find a Ukrainian eating a 100 percent ancestral diet. Even in remote villages, it is normal to see people in horse-drawn carts eating organ meats but having a jelly-filled donut for lunch.

Let's go through each food group and explore some of Ukraine's nourishing foods.

MEAT PRODUCTS

Ukrainians love their lard. Lard is the country's most consumed meat product—and the national food. The first time I visited the daily farmers market, I was overwhelmed by the amount of pork belly for sale. Lard is everywhere and is prepared in many different ways. The man in the business suit who ate a plate of lard all by himself ate it with three different seasonings. It is very popular to eat lard raw by adding it to a sandwich or just eating it as a small snack. It is also a component of soups and dumplings, and Ukrainians add extra chunks of lard to their cured and fermented meats. Many parents have their babies suck on pieces of lard instead of a pacifier!

Whole chickens are very popular and come with the head, neck, feet, liver, stomach and other organs. Most chickens sold in American

> grocery stores are very lean with no fat, but Ukraine's chickens are stewing hens with lots of fat. If you were to slaughter a hen, you would find inside various egg yolks in different stages of development from big to small. You can buy a cup of



Slabs of lard at the butcher.

these growing eggs at any Ukrainian market.

You don't see many steaks or lean meats in Ukraine. When Ukrainians do consume lean meats—such as rabbit—they are usually either fried in lard or slathered with butter, cream or sour cream. Unfortunately, lean meats are becoming more popular as the belief that "fat isn't good for you" slowly starts to take root.

Cured meats have developed a not-so-good reputation in modern "healthy eating" circles, but ask yourself, "how did humans preserve meat before the advent of the refrigerator?" They cured it! In Ukraine, cured and fermented meats are huge. In the average grocery store, half of the meat offerings are raw fresh meat, and the other half are fermented or cured meats. If you look in the right places, you can find delicious cured and fermented meats prepared in a healthy manner. Whereas most modern cured meats have all sorts of nasty chemical additions, organic cured or fermented meats use all natural ingredients. Don't be alarmed if the ingredient label lists "sugar"-look for the "lactic acid starter" in the ingredients. The sugar feeds the probiotic starter much like when you add sugar to ferment

kombucha. Many of the "uncured" meats found in organic grocery stores in the U.S. have been cured in this fashion.

ORGAN MEATS

If you put fried brains in front of the average American, they might faint, whereas the average Ukrainian would eat it before the American hit the floor. Organ meats are consumed regularly in Ukraine, with the average Ukrainian eating organ meats one to three times a week by my

estimate. When you go to the grocery store, you will always find liver, kidneys and heartand the daily farmers market will have any organ meat you could ask for. In addition, at farmers markets you can find stomach or sausages stuffed with organ meats.



Raw dairy at the market.

and let the gelatin stiffen up overnight in the fridge. In America, we have gelatin with fruit suspended in it, but in Ukraine, they do this with meat!

SEAFOOD

Seafood is quite popular in Ukraine as well. Ukraine borders the Black Sea and is home to many lakes and rivers. The daily farmers market has lots of fish, both fresh and pickled.

You will also see men ice-fishing all

winter long for fun, and they usually eat their catch for dinner. My girlfriend's father made us fried fresh fish that he caught that day. Everyone at the table but me sucked the tasty juices out of the fish heads before saving the fish carcasses for a fish stock.

Blood sausages are also very popular, along with blood pudding.

There are many different brands of liver paté available, typically featured on restaurant menus along with breaded fried brains. A lot of restaurants also serve liver dumplings.

Ukrainians regularly consume liver cake (mentioned earlier) and can purchase it at the grocery store or in restaurants. Ukrainians do not make liver cake to mask the taste of liver-far from it; Ukrainians actually enjoy the textures and tastes of organ meats. Liver cake looks like a stack of pancakes and gets served as an appetizer at celebrations and weddings.

BONE BROTHS AND MEAT STOCKS

Soups are quite popular in Ukraine and are usually made with meaty bones. Meaty bones are also available at a cheap price at the daily farmers markets. Chicken heads and feet are very cheap at farmers markets and are often used in stews.

One interesting dish is called meat jelly. They use pig's feet to produce really gelatinous broth; they then mix the meat into the broth

The most popular seafood in Ukraine is fish eggs. Ukrainians' favorite way of consuming fish eggs is to grab a piece of bread, load it with butter and then top it off with fish eggs.

DAIRY

Dairy's importance to Ukrainian culture is evident because it is a part of many dishes. And one of the first words you learn in Ukrainian is "sour cream"-they put it on everything! Although raw milk is not available in grocery stores, it is incredibly easy to get in Ukraine. You just need to go to the daily farmers market, where the milk is usually from the previous night or the morning and may still be warm when you purchase it. In my experience at just one farmers market, there were over fifty different people selling warm raw milk as well as raw butter, raw sour cream and raw cream. Most cities have multiple farmers markets. (You do want to question your farmer to ensure that the milk is of good quality because many people do use antibiotics and hormone injections.)

The farmers market is also where you will find "colostrum cake." Colostrum is the first

At just one farmers market, there were over fifty different people selling warm raw milk as well as raw butter, raw sour cream and raw cream.

milk that a cow (or human or other mammal) produces, and it is extra high in nutrients. However, Ukrainians cook it with sugar.

My favorite dairy product in Ukraine is "kefir made with roasted milk." (I know, this sounds like "pasteurized milk," a no-no!) However, the Ukrainians take milk and slow-roast it at low heat in a clay vessel for hours until the milk turns brownish and almost tastes chocolate-y; then they ferment it, and it is soooo good.

VEGETABLES AND FRUITS

Fermented vegetables are everywhere, and houses typically come equipped with underground food storage cellars. My girlfriend's mother uses over thirty one-gallon jars each year to pickle and preserve her garden harvest. Primarily, this consists of cucumbers and tomatoes combined with herbs from the garden. These pickled vegetables will last through the winter. This is just an ordinary thing that Ukrainian mothers do—and in the fall "pickling season," everyone is talking about pickling their garden.

Ukrainians eat "salads," but they are very different from American salads. A typical salad will mix boiled vegetables with mayonnaise and eggs. Also sometimes called a "salad" is sauerkraut with other things added to it.

Borscht is probably one of the Slavic people's most popular dishes. It can be either a soup or a stew; in addition to bone broth, meat and lots of sour cream, the inclusion of beetroot gives borscht its telltale purple hue.

Ukraine does not offer anything terribly exciting on the fruit front, but pickled apples and homemade probiotic wines are common offerings. There are also lots of dried fruits. Stewed fruit is popular, and after stewing and straining the fruit, Ukrainians also create a very tasty drink.

GRAINS

Bread is a huge part of Ukrainian culture, but you will not find any whole-grain breads. There are breads that look whole-grain, but they are actually just grains with a darker tint.

It is also very hard to find sourdough bread in Ukraine. In fact, I was shocked at the absence of sourdough bread, considering the prominence of wheat and Ukrainians' heavy use of fermented foods. Baker's yeast did not become popular until the 1950s, so my girlfriend's father tells stories of his mother using wild yeasts to get the dough to rise. She made a sourdough starter from scratch, which is really easy to do. Even during her time, however, they were also buying white refined flour from the store.

I suspect that Ukrainians used to grind their grains, sifting out a good portion of the bran and then using sourdough to ferment the endosperm and germ flour. The bran may have been fermented and given to farm animals or put back into bread but fermented for additional days.

The Weston A. Price community consumes a lot of beet kvass, but in Ukraine and other Slavic countries, kvass beverages made from bread are very popular with everyone. Kvass is comparable in taste to a traditional ale from western Europe. It is a fermented beverage that uses bread as its sugar source, along with various spices and herbs. Essentially, you take bread and dissolve it in water and add a starter. The starter grows off the starch dissolved in the water from the bread. Add some spices and, boom, you have some sort of kvass.

BRINGING UKRAINE'S LESSONS HOME

Weston A. Price witnessed healthy primitive peoples eating the most nutrient- and energy-dense foods available in an easy-to-digest, toxin-free format. This usually consisted of organ meats, fatty meats, raw dairy, properly prepared starches and plant foods. The people who Dr. Price studied understood that for all life on Earth, health is governed by the laws of Mother Nature. As Dr. Price said, "Life in its fullest is Mother Nature obeyed."

If you ever find yourself confused about how you should eat, just ask yourself the following questions: How do I give my body as many nutrients as possible? How do I make these nutrient-dense foods as easy to digest as possible? How do I deactivate the antinutrients found in the skins and seeds of plants? Which wild animals consume this food? What does their gut look like, and how does it compare to the human gut? (For example, cows can use their built-in "fermentation tanks," while humans must ferment foods externally.) If you are reacting poorly to nourishing foods, ask yourself: Do I have bad bacteria and fungi in my gut that are stealing my nutrients and eating me alive? What fermented foods do I need to eat to get my gut microbiome back in order?

In any event, all of us can draw inspiration from Ukraine's nourishing traditions and use some of their time-tested ideas to get more nutrients into our own diet.

Michael Merrill runs the YouTube channel "Heal Your Gut Guy" where he shows people how to recover from gut disease with ancestral dietary principles and natural remedies. He used to suffer from digestive issues, even while following a nutrient-dense ancestral diet. The channel's content dives deep into the digestibility challenges of each food group and how to overcome them.

Reading Between the Lines

By Merinda Teller

Germ Theory Versus Terrain: The Wrong Side Won the Day

Whereas most Americans probably have heard of Louis Pasteur (1822-1895), it is doubtful that many are familiar with the name and work of Antoine Béchamp (1816-1908). The two nineteenth-century researchers were scientific contemporaries, compatriots and fellow members of the French Academy of Science, but key differences in their views on biology and disease pathology led to a prolonged rivalry both within and outside of the Academy.¹

Béchamp was the more brilliant thinker, but Pasteur had political connections, including Emperor Napoleon III. Reportedly not above "plagiarising and distorting Béchamp's research,"2 Pasteur achieved fame and fortune largely because his views "were in tune with the science and the politics of his day."1 Meanwhile, mainstream medical historians relegated Béchamp's ideas-not as attractive to conventional thinkers-to the intellectual dustbin.³

Pasteur's promotion of germ theory (a flawed notion that he did not so much "discover" as repackage) has remained "dear to pharmaceutical company executives' hearts" up to the present day,⁴ having laid the groundwork for "synthetic drugs, chemotherapy, radiation, surgical removal of body parts and vaccines" to become the "medicine[s] of choice."5 The unshakeable belief that there is one microbe for every illness is so ingrained as the "controlling medical idea for the Western world" that competing ideas about disease causation still have difficulty gaining traction.⁶

Over a century after the two Frenchmen's demise, why bother to revisit their place in history? The answer is that the scientific (and industry) bias in favor of Pasteur's model has not served the public's health-to the contrary. Two decades into the twenty-first century, dismal national and international health statistics utterly belie the hype about medical advances.⁷

In the U.S., for example, over half of all children have one or more chronic conditions,⁸ as does a comparable proportion of millennials9 and up to 62 percent of Medicaid-population adults.¹⁰ Most health care dollars spent in the U.S. (86 percent) are for patients with at least one chronic condition.¹⁰ Similar trends are on the rise around the world.¹¹

For those who are able to steel themselves against medical propaganda, it is abundantly clear that the Pasteurian paradigm has failed to deliver. With Americans in such a shocking state of ill health,¹² we cannot afford to let the profitdriven pharmaceutical perspective continue to dominate. As one writer more bluntly puts it, "The sooner we get over the legacy of Pasteur's fake science and get back to reality the better."13

CELEBRITY VS. HERETIC

History awarded renown to the reductionist Pasteur for being the "father of immunology"¹⁴ and popularizing the theory that disease involves "a simple interaction between specific microorganisms and a host."15 In his singleminded focus on the germ side of the equation, Pasteur ignored the host and discounted the influence of environmental factors, thereby "conveniently dismissing social responsibility for disease."15

Both at the time and thereafter, the public and most fellow scientists found germ theory easy to embrace, perceiving Pasteur's model of life and health to be not only "superficially plausible" but also "financially exploitable."3 In fact, most of the big-name pharmaceutical companies that we know today got their start in Pasteur's era, often by merging with chemical firms, united in their goal of developing and selling synthetic products to "selectively kill or immobilize parasites, bacteria, and other invasive disease-causing microbes."16 Quoting The scientific

(and industry)

bias in favor

of Pasteur's

Many of the disease phenomena making news headlines these days reveal challenges that are the direct result of our takeno-prisoners assault on germs. comments by Ethel Douglas Hume in 1923,¹⁷ one author has remarked that Pasteur's "greatest claim to fame ought to have been the inauguration of the 'calamitous prostitution of science and medicine to commercialism.""³

Béchamp, according to his fans, held a rather "marvelous view of the life process"³ and espoused a more nuanced perspective on infectious and chronic illness-for which history branded him a heretic. Much of Béchamp's work centered on the biological role of fermentation.18 He coined the term "microzymas" (from zyme, the ancient Greek word for a ferment)19 to describe tiny particles that he viewed as the "primary anatomical elements of all living beings"---"the beginning and end of all organization."20 Béchamp viewed these particles as living entities precisely because of their "power of movement and production of fermentation."20 Subsequent generations of open-minded researchers agreed with Béchamp's pioneering observations about microparticles as the fundamental unit of biology, with the most recent research in this vein proposing a new genetic theory and a "universal life paradigm" involving spontaneous self-assembly of DNA.21

Béchamp's various discoveries led him to conclude that our bodies are, in effect, "miniecosystems." When an individual's internal ecosystem becomes weakened—whether due to poor nutrition, toxicity or other factors—it changes the function of the microbes that are naturally present in the body, producing disease.²⁰ In other words, microorganisms only become pathogenic after environmental factors cause the host's cellular "terrain" to deteriorate.¹⁵

As one example of the powerful influence of weakening forces on the host's ecosystem, a mid-1980s study looked at French children who experienced complications of wild-type varicella (chickenpox).²² (Note: France has never implemented varicella vaccination.) Although three deaths resulted from what is ordinarily an extremely benign childhood illness, all three fatalities took place within a subset of nine children who had been taking steroid medications on a long-term basis. In comparison, ninety-four previously healthy children recovered from varicella without incident. The researchers concluded that the deaths occurred "as a function of the [weakened] terrain."

PROBLEMS OF OUR OWN MAKING

Many of the disease phenomena making news headlines these days underscore the deficiencies of the pharmaceutical model and reveal challenges that are the direct result of our take-no-prisoners assault on germs.

For example, dangerous superbugs^{23,24} are emerging—largely due to overuse of "antieverything" drugs such as antibiotics and antifungals—and are ushering in a potential return "to a world in which infectious diseases drastically shorten lives."²⁵ Some have estimated that drug-resistant pathogens will become a bigger killer than cancer by 2050.²⁵

Although the conventional pharmacopeia that created the superbug problem has thus far been helpless to address it, experts are unwilling to step out of the lucrative Pasteurian mindset. Thus, leading researchers at Harvard, Glaxo-SmithKline (GSK) and Cincinnati Children's Hospital suggest that the solution to superbugs is. . .more antibiotics, plus vaccines!²⁵ In proposing vaccines as a response, the trio of establishment researchers makes the argument that vaccines are "evolution-proof" and do not generate resistance.²⁵ The GSK researcher also confidently asserts that vaccination is "the most effective medical intervention that has ever been introduced"-and gives Pasteur considerable credit.26

INCONVENIENT FACTS

The complacent attitude that vaccines are the answer for everything sidesteps many inconvenient facts—documented by numerous studies—showing that vaccines are far from predictable or beneficial. In fact, in refutation of the static perspective promoted by Pasteur and evoked by the authors who want to use supervaccines to solve superbug problems, vaccines not only increasingly fail to protect recipients against the microbes they target but are promoting increased susceptibility to vaccine strains as well as other strains and pathogens, while also augmenting disease severity.²⁷ For example:

- Children who receive pertussis-containing vaccines are more susceptible to pertussis "throughout their lifetimes";²⁸ five years after completing a pertussis vaccine series, a child will be up to fifteen times more likely to acquire pertussis than in the first year after receiving the vaccine series.²⁹
- Flu shots make people more susceptible to other severe respiratory viruses,³⁰ and people who get flu shots annually are more susceptible to non-vaccine strains of influenza.³¹
- In clinical trials of Merck's human papillomavirus (HPV) vaccine Gardasil, women with evidence of current or prior exposure to HPV had a 44 percent increased risk of developing cervical lesions or cancer after receiving the vaccine.³²
- Waning vaccine-based immunity has increased measles³³ and mumps³⁴ severity in the most vulnerable age groups.

Béchamp surely would have had some comments about these significant breakdowns in vaccination's underlying assumptions. In addition, he likely would have been disturbed by the vaccine industry's little-discussed reliance on DNA from species such as birds, dogs, monkeys, cows, pigs, mice and insects in vaccine manufacturing.³⁵ Noting Béchamp's belief that "an organism's microzymas are unique to it, and are not interchangeable with those of another," a modern author suggests that Béchamp would disapprove of introducing microzymas "proper to one species. . .into an animal of another species"—which is exactly what vaccines do.³ This author continues:

How. . .foolhardy is it then, when vaccinal microzymas are not only from another species, but are already morbidly evolved and are accompanied by preservatives, formaldehyde, and other chemicals? There is no sanity whatever to this practice. The best that can be said about it is that it may prevent, against the odds, the appearance of varying sets of symptoms. But this is at the price of weakening the immune system, toxifying the body, and possibly setting the stage for degenerative symptoms later in life—all the while doing absolutely nothing for, except perhaps worsening, the underlying disease condition.

The picture of weakening and degeneration painted in the previous quote is in fact precisely what is now occurring on a massive scale. In his 2018 book Vaccines, Autoimmunity, and the Changing Nature of Childhood Illness, Dr. Thomas Cowan (founding Weston A. Price Foundation board member) describes how "immune system imbalance disorders" are debilitating both children and adults in record numbers "unheard of before the introduction of mass vaccination programs."36 Explaining why the (Pasteur-influenced) model of vaccine-induced immunity is so flawed. Cowan notes that vaccines deliberately favor and provoke one type of immune response (antibodies) but short-circuit the other crucial prong of our immune system (cell-mediated activity). In short, vaccines generate a state of "excessive antibody production"-and "this excessive antibody production actually defines autoimmune disease" [emphasis in original].36

GUT HEALTH

The worrisome iatrogenic challenges posed by superbugs and vaccine failure are bad enough. However, the Pasteur-influenced medical model also must accept a share of blame for the widespread disruption of the human microbiome that is such a standout feature of the modern ill-health picture.37 Awareness of the intestinal microbiome's critical importance in providing "resilience against external perturbation"³⁸ has increased in recent years, in tandem with awareness of the factors exerting an adverse influence on gut health. The latter include antibiotics, of course, but also toxins such as glyphosate, which alters the gastrointestinal microbiome in favor of pathogenic microbes.39 Diminished microorganism diversity in the gut has been associated with conditions as varied as "allergy, diabetes, obesity, arthritis, inflammatory bowel diseases and. . .neuropsychiatric disorders."40

"Immune system imbalance disorders" are debilitating both children and adults in record numbers "unheard of before the introduction of mass vaccination programs."

Researchers who study the microbiome

Realistically, we cannot expect researchers who receive direct or indirect funding from the pharmaceutical industry to suggest common-sense steps for supporting or strengthening the immune system.

point out that under optimal circumstances, exposure to microorganisms educates the immune system "from the moment we are born"—and that "correct microbial-based education of immune cells may be critical in preventing the development of autoimmune diseases and cancer."⁴⁰ Reflecting this knowledge, Cowan devotes an entire chapter in his autoimmunity book to gut ecology ("the preserver of our integrity") and to the ways in which this form of "early education" can go awry even from birth.³⁶

Factors that compromise microbiome diversity, probably synergistically, include Csections (which prevent babies from picking up healthy microbes in the birth canal); vaginal birth to mothers whose own internal ecology is skewed by prior antibiotic use or other factors; the standard American diet, full of genetically modified (GM) ingredients and antibiotics and lacking in live cultured and fermented foods; ubiquitous glyphosate; and, finally, vaccination. Regarding the latter, Cowan states:

[I]t has been shown that vaccination does have a direct effect on the microbiome and gut permeability even when given intramuscularly, not orally. The precise mechanism of how this happens is unknown, but I believe that anytime you affect the balance of immune response, you affect the largest and most important organ system of immune response that we have—the gut.

PARADIGM LOST

If the medical community were honest, it would be forced to admit that the model of disease that catapulted Pasteur to fame has played itself out and is pushing us to disability and death.

Here and there, scientists working within the mainstream framework recognize this. For example, researchers tackling the problem of multi-drug-resistant tuberculosis (TB) acknowledge that a wide variety of factors increases host susceptibility to TB and TB mortality, including "immune-dysregulation from any cause (including stress, poor living conditions, socioeconomic factors, micronutrient deficiencies, HIV), malnutrition, aberrant or excess host inflammatory response to infection, alcohol and substance abuse, co-morbidities with noncommunicable diseases such as diabetes, smoking, and chronic obstructive airways disease, [and] pneumoconiosis."⁴¹ They suggest, therefore, that it is time to build on "the historical Pasteur-Bechamp debates on the role of the 'microbe' vs the 'host internal milieu' in disease causation" and invest in "host-directed therapies" (HDTs) that "alter the 'host terrain' in favor of the host." Unfortunately, what HDTs mean to this group of researchers is. . .more pharmaceutical interventions.41

Realistically, we cannot expect researchers who receive direct or indirect funding from the pharmaceutical industry to suggest commonsense steps for supporting or strengthening the immune system. If Béchamp were around today, chances are that his recommendations would be more sound, emphasizing basics such as highquality nutrition and excellent sleep. At a deeper level, Cowan also reminds us that the quest for a life of "abundance, joy, and meaning" is equally important and sustaining to our health.

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GETTING OUT OF THE WAY

"Our job as parents, doctors, and caretakers for children is mostly to observe and, only when needed, help guide a process to its healthy conclusion. But mostly we don't. We intervene. We manage. We attempt to control. Doing something, anything, temporarily assuages our fears (and creates massive industries in the process).

The result, however, is. . . a medicalized society that must devote huge resources to dealing with sick people; as the amount of medicine in our world increases, so, too, does the amount of sickness. Beyond a certain basic level of care, use of more medicine not only undermines an individual's freedom and autonomy, but also degrades a society's health."

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The Wise Traditions Pantry SIXTEEN WAYS TO HELP OVERWEIGHT KIDS By Kelly the Kitchen Kop

What a difficult situation it is when weight already becomes an issue at a young age. Here in the U.S., where our government has so utterly messed up our food supply, it's not easy dodging the junk food landmines all around us. Sadly, childhood obesity has become increasingly common, and it's a huge stress on both the parents and the child. The child not only suffers from emotional distress, but also faces many health issues that go along with obesity.

Each situation will be unique, of course, but if you have a child in your life who struggles with his weight, this article offers some suggestions and ideas to help. Note: I make the assumption that if you're reading this, you are already somewhat familiar with the Weston Price way of eating and may already be implementing many of the Wise Traditions dietary principles. The suggestions that follow build on that foundation.

KEEP IT LOW-KEY

Keep the issue as low-key as you possibly can. Do not let this be the start of an obsession about weight for the rest of your child's life. Avoid long conversations about their size, and do not bring it up much (if at all). Try not to let your children hear you lamenting about *your* weight or how *you* look. If they mention how they see themselves, just reply matter-offactly, "It's good that you want to be healthy; we should all eat better and get moving more. For dinner, let's try finding a new healthy recipe that looks good and later go for a walk (play tennis, swim, etc.) together!"

GET MOVING

Get moving *together*. You can't just tell a kid who has always been more sedentary or who isn't in the habit of being on the move to go exercise without joining in and making it fun. Our kids are always watching us, and they need to see us enjoy being active, too.

LIMIT SNACKS

Limit in-between meal snacks. However, if your child asks for one, again keep it low-key. Offer some cheese, a meat stick from a farmer you trust or another healthy snack option (see the WAPF Shopping Guide¹ for ideas). You can also just matter-of-factly say, "We'll have dinner soon and I want you to be hungry. Why don't you see if your friend can play until then?" It's also good to have a no-snacking-after-dinner rule.

COOK TOGETHER

Involve your children in the kitchen. Kids are more likely to eat what they help make. I've seen this repeatedly with our own children. You could use this strategy when introducing new recipes and also take advantage

of this time to talk about why you use foods with certain ingredients and avoid others. Teaching your kids to cook is one of the best lifelong gifts you can give them. In addition, take them to farms or farmers markets so they can see where healthy foods come from. Consider growing a garden together, even if it's just in some pots on your patio. As they help you, you are also teaching them another important lesson—that real, healthy foods taste much better! If their palate doesn't appreciate this yet, it will in time.

QUALITY NOT QUANTITY

Fill your children up with healthy fats² and try to eat more lower-carb foods as a family. For example, make burger salads for everyone, instead of letting some of the kids have a bun and some not. With carbs such as breads, pasta, rice, potatoes or sweets, quietly watch the portions. When you know your child has had enough, drum up some distractions and transition to something else fun-a puzzle, books, playing outside, a family activity or whatever works for your child. Maybe even bring it up before you eat: "After we're done with dinner, we're going to _____." That can help to get the focus off food. Be careful with this one, though, because if your child starts feeling deprived, you could cause more harm than good and turn food into an obsession.

KEEP SCREENS OUT OF BEDROOMS

Keep TVs and video games out of your child's bedroom. Even better, limit video game time unless they're playing a game like the Wii where lots of motion is involved—that one is a great way to get the whole family moving. Admittedly, limiting screen time is not always easy to implement—trust me, I know—I've had three teenage boys. At the very least, limit their time to an hour a day if you can. When they know their time is up, they become "sooooo bored" and then I cheer inside and think, "*Perfect*!" Bored kids will inevitably go find something to do outside!

KEEP JUNK FOOD OUT OF THE HOUSE

Don't stock junk food in the house. There will be fewer battles—*they can't hound you for what isn't there*. I can't stress this one enough! You may still hear complaints sometimes about how "there's nothing good here to eat," but they'll get over it. Eventually, they'll find a snack and if they don't, even better, because then they'll be nice and hungry for their next nutrient-dense meal. This really works.

PACK A LUNCH

Always send your children to school with lunch packed at home.³ This is very important because what passes for "food" in most school hot lunches is downright disgusting. It's no wonder kids are struggling not just with their weight but also with being able to sit still and learn.

LIMIT BUT DON'T BANISH SWEETS

Limit sweets at home, but don't make a big deal if you go out for ice cream or have another treat now and then. The best option is to make your own dessert because you'll know what's in it—and what's not. You can even play with recipes a bit to lower the amount of sugar and use better grains. These days, there are many "keto dessert" recipes online—make it a challenge to find more of those recipes that you and your children can whip up together. Just make sure there are plenty of "better" options at home that taste *good*, so that your children can more easily avoid all of the junky temptations out in the world.

READ LABELS

Read labels like crazy and teach your kids to do so as well. Avoid *trans* fats (partially hydrogenated oils—usually soybean, corn or canola), MSG and high-fructose corn syrup like the plague. These have been strongly linked with obesity, diabetes and other health issues. Most Weston Price followers have known to avoid those scary ingredients for a while now, but even the mainstream media are starting to mention studies showing that "ultra-processed" diets cause weight gain.⁴ Remember also to beware of chemical preservatives and fake colors and flavors. Thankfully, none of these is difficult to avoid if you buy organic; however, while buying organic may help you avoid a lot of bad ingredients, it does *not* guarantee nutrient-density. Mostly we should be eating and cooking with whole foods, but buying organic for an occasional "junk food" is sometimes a necessary compromise with kids and especially teenagers.

DON'T FORGET THE COD LIVER OIL

Taking cod liver oil helps to balance out our fatty-acid ratios, which has been shown to reduce heart disease, diabetes and obesity. Cod liver oil provides vitamins A and D, which will help your child be more active.

AVOID ENDOCRINE DISRUPTERS

Watch out for the endocrine disrupters in your kids' environment, which can wreak havoc on their growing bodies. These chemicals are in most plastics (never put warm food in plastic containers), in non-stick pans, in soy foods and in almost all skincare and makeup products as well. My website describes the skincare products that my daughter and I use.⁵

SUPPORT GUT HEALTH

Be sure to address your children's gut health as this plays a huge role

KID-PLEASING LOWER-CARB FOODS

- If you can find healthy luncheon meat with no weird ingredients or—even better—get some from your farmer, spread on some cream cheese (cheddar is good, too) and roll it up around some crunchy veggies. We love these meat-and-cheese roll-ups around green onions or pickles for a delicious burst of flavor.
- Make homemade ice cream—yes, you read that right. If my kids want a little of this for breakfast, I let them because there's less sugar in homemade ice cream than in a pancake smothered in syrup. Plus, homemade ice cream is loaded with healthy fats.
- Smoothies are delicious. You can easily use unrefined sugars and control the amounts of sweetener used.
- Hard-boiled eggs are great for quick snacks. Many kids love them with a little sea salt and pepper.
- Make bacon! No more words are necessary, right?
- Dip veggies in a homemade ranch dressing.
- For a crunchy snack, you can find parmesan cheese "crackers" at the store with only one ingredient!
- There are many more keto and low-carb snacks and recipes on my blog.9

in maintaining a healthy weight.⁶ Overweight kids definitely need to be on a good spore-based probiotic, as well as eating as many fermented foods such as sauerkraut or homemade fermented pickles as possible. Consider making kefir soda or kombucha with them for a healthier soda pop.⁷

GOOD FATS, NOT LOWFAT

Get plenty of good fats and make sure your child does not consume lowfat dairy! Healthy fats like butter, other animal fats and full-fat dairy fill us up so we're less likely to need a snack later or crave empty carbs. Nina Planck explains in her book, Real Food: What to Eat and Why, that calcium absorption may be the key to why studies show that people who consume more milk, yogurt and cheese lose fat (especially belly fat) and gain lean muscle.8 Planck quotes a nutrition professor, Michael Zemel, who found that calcium from dairy foods is "strikingly more effective than calcium from fortified foods or supplements" for stimulating weight loss. When our body is well nourished, it doesn't store extra fat in "fear" that it won't have what it needs. As a bonus, foods with good fats taste great, too.

DEVELOP SKILLS AND CONFIDENCE

It's inevitable that kids with weight issues are going to struggle with low self-esteem, at least to some degree, so building confidence in some area of their life will be crucial. Find whatever it is that your children are good at and help them further develop these skills or hobbies. This will also keep them more active.

ROLE-PLAY CHALLENGING SITUATIONS

Lastly, other kids (or even adults) can be cruel, as we all know, and your child is bound to hear about how they look from some little snot. Praise them often for all their many wonderful qualities (without being phoney or giving empty praise, because kids see through that) and tell them how great you think they are and how much you love them, no matter what. Be that safe person in their life who they can always come to when they're sad. Let them know you understand how they feel, and share whatever it was that you were teased about as a kid. Role-play with them and try out ideas for how to handle a similar situation in the future. This also may be a good way to get them giggling a little and lighten up the issue for them a bit.

If you have an overweight child, my heart goes out to you—and the child! Hopefully these suggestions will help you help your child live a full, healthy life, knowing how to nourish themselves well.

Kelly is a wife and homeschooling mom of four kids, and the author of Real Food for Rookies. You can find her at KellytheKitchenKop.com where she's been writing for ten years. If you want to learn more about any of the above, look around on the blog or search online for "Kitchen Kop healthy snack ideas" or "Kitchen Kop school lunch ideas." If you subscribe to the newsletter at KellytheKitchenKop.com/free, you'll get a grocery store cheat sheet as well as many free printables and access to the Real Food for Rookies online class.

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ALTERNATIVES TO CANDY

In her 2010 *Wise Traditions* article on "zapping sugar cravings," Jen Allbritton shared the following strategies for rewards that are not candy-based.¹⁰

When it comes to food, I am quite the negotiator. Brainstorm on what your child enjoys most. Maybe you limit your child's time with the TV. A piece of candy received at school can be traded for an extra half-hour show, staying up fifteen minutes past normal bedtime, or an extra trip to the pool over the weekend. A ticket system could be devised to work up to something bigger, such as a doll or a pair of in-line skates. Use your imagination to make active family fun more tempting than sugar. Also, you can offer your child's teacher or Girl Scout group leader ideas for rewards or gifts instead of candy. Depending on the age, consider nickels or dimes, balloons, pencils, bookmarks, crayons, ribbons, glow bracelets, stickers, and other little trinkets from the dollar store. It may even be worth purchasing these alternatives to make the switch happen.

Homeopathy Journal A REAL MEDICINE FOR POSTPARTUM DEPRESSION By Joette Calabrese, HMC, CCH, RSHom(Na)

"Take her away. I don't want her." No one imagined that Suzy would actually announce it aloud. Not her husband, not her mother and certainly not the attending doctor—but moments after she gave birth to her daughter, Suzy was clear about her demands. "Take her away."

Postpartum depression shows up differently in different women. Some mothers cling tightly to their babies and weep, while others feel little or no connection to their offspring. For some it occurs at the moment of birth, while for others it sets in during the following weeks. In Suzy's case, she was actually repelled by the thought of a baby from the moment of conception and was determined she would not keep her. She tried to fall in love with the idea of a child, but it just didn't happen.

What makes it possible for something so natural to women to become so dreadful to some? How could a mother's mind convince itself to turn against her own precious child? Some have made the compelling argument that postpartum depression and a host of other behavioral effects can be linked to the previous use of synthetic hormones.¹ What kind of synthetic hormones would young women be the most likely to use during their childbearing years, you ask? Why, birth control pills and injections, of course.

LONG-TERM SIDE EFFECTS

Freedom—we love it, and we expect it. And ever since the 1960s, when the contraceptive pill became widely available, women have celebrated the "freedom" it granted them. No longer bound to child rearing, women embraced "the pill" for affording them a freedom that was unimaginable in millennia past.

But also unimaginable were the pill's side effects. And I'm not talking about the ones that were immediately evident, such as the weight gain, depression and blood clots, which the drug insert casually mentioned (as if it were normal to experience them). The risk of those side effects made the choice to stay with the pill or not one that women confidently felt in control of. No, I'm talking instead about long-term effects that surreptitiously invade a woman's life and manifest themselves in a more sinister way, many years later—namely, behavioral effects that include what has come to be known as postpartum depression.

THE MEDICAL CONVEYOR BELT

Is the pharmaceutical industry squarely facing the evidence that synthetic anti-birthing hormones might be causing peculiar behaviors? No. Instead, the industry has decided to answer the postpartum depression dilemma with—you guessed it—yet another drug. In March 2019, the FDA approved a drug called Zulresso for the intravenous treatment of postpartum depression.² At the time of this writing, the FDA approval pertains only to a restricted program administered by health care providers in "certified" health care facilities.

It's not the industry's fault. It's ours! We buy the stuff. Our demand is there, and the industry merely fulfills it. The articles I've recently read, ranging from pieces in *The Wall Street Journal*³ to *Huffington Post*,⁴ laud the new drug as another "boon" for women. (That's what the media are still saying about birth control drugs in general, too.) But there's no discussion of how this will affect women, children and families in the short term, much less in the long run.

Zulresso, of course, will not have been tested on newborns, who will be directly affected by any drug their mother takes during the nursing period. There's no mention of how tampering with a most delicate endocrine system may affect subsequent pregnancies and perhaps menopause years later. With these uncertainties that only time can answer, we have to ask ourselves: Are we allowing ourselves and our newborns to be guinea pigs?

And then there's the most compelling question of all: is it prudent to treat the side effects of one drug with yet another? This is the medical conveyor belt that we, as members of the Weston A. Price Foundation, work so persistently to escape.

HOMEOPATHIC SEPIA

What about our previous decisions? Are we confined to live with and blindly accept medical choices we agreed to years ago? Of course not. This is where homeopathy comes in.

Suzy's mother, a client and friend, contacted me from the hospital where her daughter had just given birth. In a hushed and intense voice,

Is it prudent to treat the side effects of one drug with yet another? This is the medical conveyor belt that we work so persistently to escape. she whispered, "They're talking about opening a case with Social Services."

Since I had not taken Suzy's case, I had no way of knowing whether Suzy's postpartum behavior was the result of synthetic hormone use in years past, but it didn't matter. That's because homeopathy doesn't necessarily require this information.

Instead, we can turn to several of homeopathy's standard references. In Robin Murphy's A Homeopathic Clinical Repertory, under the rubric "depression in pregnancy," there are the four main remedy choices: Natrum muriaticum, Platina, Pulsatilla and Sepia.⁵ Sepia, however, is in bold print because homeopaths have found it to be the most commonly effective both clinically and in provings. In Homeopathic Materia Medica by William Boericke, MD, one reads the following under Sepia: "Indifferent to those loved best. Aversion to occupation to family."6 And Dr. Roger Morrison, in his Desktop Guide to Keynotes and Confirmatory Symptoms, describes the patient who needs Sepia as "disconnected and indifferent to the family with depression, even suicidal states."7

In addition, we note that the rubric "poisoning from estrogen" lists *Sepia* as one option, and the rubric "poisoning from progesterone" specifically recommends *Sepia* above all other remedies. The same goes for the rubric "ailments from premarin."

This information was the basis for my decision to suggest *Sepia* 200 for Suzy's depression and tragic lack of connection to her baby. Upon hanging up the phone, Suzy's mother actually ran to the local pharmacist, purchased *Sepia* and administered it to her daughter that afternoon.

SUBTLE CHANGES

In an effort to encourage maternal bonding, the nurses brought Suzy's baby girl to her several times over the course of the first day in the hospital. Each time, Suzy turned her head and even folded her arms in rejection. When she returned home at the end of the second day, her mother was there to encourage the bonding, but the cold response remained the same. "No, I don't want it...ever!" By the third day, Suzy began lactating. She declared that nursing was for "animals" and asked for a drug to dry her milk.

On days two and three, after Suzy had returned home, Social Services visited, giving Suzy's mother an unparalleled case of anxiety. To this day, she recalls those being two of the most harrowing days of her life. Both times, however, she calmly persuaded them to return the next day to speak to Suzy—in hopes that by then, the *Sepia* would begin to act.

On day four of taking *Sepia*, Suzy's mother, father and husband decided they were no longer going to coddle her with gentle, coaxing pleas. Instead, they approached her with a blunt call to action—and a stern, much-needed family discussion regarding her responsibilities. It was actually during this family meeting that Suzy's mother noticed Suzy seemingly flashing an interested glance across the room toward her baby. Until this time, whenever the child was brought into the room, Suzy consistently fixed her gaze in the opposite direction. But now, the baby's grandmother noticed a subtle change.

With this observation, she deftly approached her daughter and simply handed her the child. For the first time since birth, mother and child were one again. A small tear developed in Suzy's eye, matched by tears from her parents and husband. Her mother later described the moment as though the heavens had parted, and light shone directly on mother and child!

Suzy tentatively gazed upon her baby with what appeared to be attentiveness and began unwrapping and wrapping the swaddled bundle so she could see and care for her baby. Was this just the natural evolution of mother-child bonding finally taking hold a little later than expected, or was the homeopathic medicine acting? No matter. Mother and child were united!

However, the cause of the transformation *was* soon made clear. Thinking that *Sepia* was no longer needed, Suzy's mom stopped administering it to her that day. Three days later, like a scripted tragedy, the postpartum depression returned with a vengeance to replay those first few days of devastating heartbreak. Suzy fell back to disgust for her child and once again relegated her motherly duties to someone else.

This time, however, Grandma knew what to do. She administered *Sepia* 200 once again,

and by evening, mother and child were reunited in adoration. Grandma had initially moved in to help care for the struggling family, but from this time forward, she considered her most vital duty to be administering *Sepia* to Suzy every day.

UNWAVERING COMMITMENT

It has been some twenty-four years since the birth of Suzy's baby. Suzy has been a committed and loving mother, never again wavering from her maternal duties as she did during those first difficult and trying days. Instead, her commitment to her child has been remarkable. She arranged and sat through every ballet class and taught her little girl to read at age four in both English *and* French. Suzy has proven time and again to be a loving and proud mother.

But this is not an uncommon occurrence when there is a call for *Sepia*. It is most often useful for mothers who would otherwise be quite focused on their children but whose hormones have gone awry or, perhaps, been chemically manipulated. Over-focus on the children can render some mothers ragged and may even, as in this circumstance, cause them to become hardened and indifferent.

As a revealing side note, I learned not long after that Suzy had indeed taken synthetic hormones for four years leading up to the pregnancy. Although this same hormonal disruption can be found naturally, even without tinkering with synthetic hormones, in my experience, natural disruption does not occur nearly as often. *Sepia* is used for the extremes either way.

COWS, TOO

Around the same time as the birth of Suzy's baby, a farmer client contacted me when the family cow refused to nurse her newborn calf. It was day three after the birth, and because of the mother cow's lack of interest in her baby, the calf was being fed with milk from another cow. The mother cow was so adamant in her disgust that she kicked the newborn away, and the farmer had to separate the two for the safety of the calf.

As a homeopathy student, I would have looked up this behavior in my repertory, but even with a rudimentary understanding of the sweeping ability of *Sepia*, it was easy to declare with confidence that the farmer should administer *Sepia* 200 twice daily for several days. That night, after the third dose, the mother cow cried out for her calf from her lonely stall. When the farmer reunited the two, she commenced nursing and cleaning her baby. The farmer administered *Sepia* 200 consistently for about three weeks—so there were no backsteps with this pair. As a fun aside, the farmer later told me they named the calf "Joette" as a thanks for my help. Is it any wonder that I find homeopathy a most rewarding life's work?

SAFE AND TIME-TESTED

To fulfill an apparent need, the pharmaceutical industry is at the ready with its new postpartum depression drug, expected initially to cost from twenty to thirty-five thousand dollars per treatment.⁴ Homeopathic *Sepia*, on the other hand, is neither synthetic, costly nor even new and poses no threat of side effects. In fact, *Sepia* was proven in the late 1700s and has been used for female hormonal conditions ever since by medical doctors, midwives, mothers and grandmothers. Bringing a medicine of repute into the home to become a part of a family's arsenal offers control with safety and assurance, whether postpartum or during other mothering events.

The use of drugs is not well met with more drugs. Homeopathy offers a medicine that has proven itself safe, consistent and highly regarded for over two centuries. And we have a new generation to prove it.

Joette Calabrese, HMC, CCh, RSHom (Na) is a homeopathic consultant, educator and most importantly, a mom who raised her children to adulthood using only homeopathy and Wise Traditions methods. Learn the homeopathy methods Joette discusses here in her course "Feminopathy" and the methods she used in raising her family in her study guide, Gateway to Homeopathy: A Study Group Guided Curriculum. This guided curriculum teaches friends gathered in living rooms across the globe or in online groups how to gain the confidence and skills to become the healers of their families. Learn specific protocols for particular conditions, such as those in this article, and a new homeopathic paradigm Joette has termed "Practical Homeopathy." Go to HomeopathyStudyGroups.com to find everything needed to get started and read testimonials from moms, grandmothers and others who have taken this powerful eight-week course.

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Technology as Servant YEAR-ROUND VEGETABLE GROWING: MORE DOABLE THAN EVER By John Moody

The power of "protected growing spaces"—high tunnels and greenhouses makes yearround growing easier than ever. Consider a garden that is about twenty thousand square feet in size (about one-third the size of a football field). Imagine all the food you can grow in that space—lettuces and cabbages in the cool spring and fall, tomatoes and peppers in the hot summer and all sorts of other things in between.

Now, try to imagine growing just as much food in one-tenth of the space just described two thousand square feet. Impossible? In many locations, it is not impossible at all. Although many people erroneously believe that there are only a few places with a climate suitable for growing produce year-round, the power of "protected growing spaces"—and especially high tunnels and greenhouses—makes it possible. With the additional support of modern technology, year-round growing is becoming easier than ever, even for a hobby farmer.

MAKING IT LOCAL

Reviewing a few facts about the current U.S. agricultural model can help illustrate why one might want to grow fresh food year-round. Around 75 percent or more of the nation's fresh vegetables come from just two valleys in California.¹ Even in the organic vegetable market, massive monocultures provide most of the nation's meals. What is the end result? Not only does this system typify the proverbial (and foolish) strategy of "putting all of our eggs in one basket," but it also entails food traveling massive miles for every bite of fresh produce and prioritizes varieties selected primarily for transit and shelf stability rather than nutrient density and biodiversity.2 Consolidated growing, processing and handling contribute to a food system that also suffers from massive food safety issues.

A few weeks ago, I walked through Costco and experienced a direct reminder of just how far and long "fresh food" often travels. Grabbing a package of organic lettuce, I checked the date—it was over two weeks old! While the produce still looked fresh (courtesy the power of a two-thousand-mile-long cold chain along with other technologies to extend shelf life), we know that quality declines rapidly and substantially for many types of produce once they are detached from the ground. Other stores I checked were little better. Growing produce in your own high tunnel or greenhouse can provide a better option.

THE POWER OF THE SUN

If you have ever had to walk a long distance to your car during the dead of winter, you probably looked forward to the warmth you were sure to find inside the car, which the sun provides even in subzero temperatures. The same power of the sun that makes a car hot on the coldest of days can keep vegetables growing through the long, dark days of winter.

When we first moved to our property, I was able to witness first-hand just how powerful protected growing spaces could be. I needed some lumber, so I went to an Amish neighbor's sawmill. Next to the mill, he had a lovely greenhouse. He asked if I wanted to step inside, as it was a very cold and windy February day in Kentucky, well below freezing. As we stepped inside, my glasses immediately fogged up, obscuring my ability to see anything. I took them off and rubbed them with my shirt—and when I put them back on, I swore I had been transported to Central America!

There were trees laden with lemons and limes, bananas (!) and rows and rows of fruits and vegetables from floor to ceiling. I could make a 100 percent locally-grown Kentucky fruit smoothie for the first time! I knew then and there that while field growing is important, it just doesn't compare to protected growing spaces. Even better, technology is making such spaces more productive, more efficient and easier to manage than ever before.

FROM WALLS TO HIGH TUNNELS

The original protected growing spaces were walls—yes, walls! Historically, large walls not only helped break up wind but served as heat sinks, capturing the sun's energy during the

day and protecting the plants close to the walls and in enclosed courtyards at night. In old Louisville, many people don't understand that the backyards with tall, beautiful brick walls that they see are a throwback to a time when such houses still engaged in some level of food production.

G r e e n h o u s e s started coming into vogue when glass became more affordable, especially in northern countries. Currently, a number of Nordic coun-

tries are the world's leaders in protected-space produce production,^{3,4} even though they all sit at higher latitudes than Maine! What this means is that, across much of the United States, there really isn't a reason not to localize and extend vegetable production to most of the calendar year.

Greenhouses tend to be more permanent structures or buildings that include heating and cooling systems; while they usually are made using glass or polycarbonate-type panels; increasingly, many are also using plastic (see Table 1).⁵ The invention of clear plastic (both sheet and panels) and tubular metal piping allowed the birth of the modern high tunnel. Although plastic poses a perennial environmental challenge in so many other ways, it solved the problem of how to make protected growing spaces both sustainable and affordable. High tunnels are almost always covered with plastic, though some may use polycarbonate panels for the endwalls. A high tunnel is generally more of a temporary structure—not built to the same structural strength as a greenhouse. Given their ease of construction and relatively low cost (you can DIY build a two-thousand-square-foot structure for around fifteen hundred to twenty-five hundred dollars), thousands of high tunnels are built in the U.S. every year.

In the past, the approach to heating and cooling represented the key difference between greenhouses and high tunnels: growers used active, controlled methods for heating and cooling greenhouses—relying on modern heating, ventilation and air conditioning (HVAC)—whereas



the inside environment of high tunnels was controlled using passive strategies such as solar gain, venting, sidewall curtains and the like. This distinction has become less pronounced over the past fifteen or so years, however, with many tunnels now using supplemental heating and cooling systems as well. As a result, people often use the terms "greenhouse" and "high tunnel" inter-

changeably. (For the remainder of this article, I will refer to high tunnels.)

HOW MODERN TECHNOLOGY CAN HELP

There are significant challenges to managing high tunnels well. For instance, a winter day in Kentucky might start off well below freezing, in which case the high tunnel would need to be closed up tight for the night; some crops might even need additional protection from the cold. That same day, however, the outside temperature might reach forty-five degrees and full sun by lunch time, pushing the tunnel temperature up to seventy-five degrees or warmer in under two hours—if the outside temperature later climbs into the sixties, the tunnel, without venting, could easily hit the ninety-degree mark. If you are home all the time, no problem. You can open doors and vents and sidewalls, or close them as needed. But is everyone always home? Nope, not even farmers!

Fortunately, modern technology makes it easier than ever to meet plants' needs in a high tunnel environment. Plants' four basic needs are water, air, an amicable temperature for the crop in question (which generally means additional heat) and nutrients, including the microbial community that allows plants to access the nutrients. Enter modern Because you can grow so much more in a high tunnel, and grow it much more quickly, the soils in high tunnels get far more of a workout than outdoor soils. technology. From irrigation to ventilation, high tunnels are now benefiting from much-needed automation. Low-cost sensors can track everything from soil moisture to air temperature and humidity, and it is possible to partially or fully automate many different processes. For instance, is the tunnel becoming too hot? Ridge vents will automatically open. Is the soil too dry? The irrigation system will cycle on when the soil sensor sounds the alarm.

When it comes to nutrition, soil tests are crucial for high tunnel growing. No matter what you are growing, a soil test will be the most important thing you can do to ensure proper nutrient levels and produce healthy, nutrient-dense crops—although such testing is often neglected. Because you can grow so much more in a high tunnel, and grow it much more quickly, the soils in high tunnels get far more of a workout than outdoor soils. Moreover, tunnels don't get rain, which means that salt build-up and other nutrient issues can set in more quickly. So soil testing is a must.

Tunnels offer unique ways to provide water to plants and soil. Because rain doesn't fall in a tunnel, farmers usually provide water via irrigation systems. Hand watering is possible but isn't efficient or recommended. Disadvantages of hand watering include the potential for causing sun scald and disease problems on the plants; in addition, hand watering uses far more water than necessary and a great deal is lost to evaporation, which increases humidity in the tunnel and again can contribute to disease. Fortunately, all sorts of irrigation systems now exist, from drip tape to drip spikes, which not only conserve water and reduce disease but also reduce weeds. This is because these irrigation systems can deliver water directly to the plants and in amounts close to what is needed, giving weeds less access to the water they need to proliferate.

Because you are delivering water anyway, it makes sense to double up and address both water and nutrient needs at the same time. Delivery of nutrients to plants via irrigation water is called "fertigation." This type of system allows a custom-tailored approach to plant and crop needs, making it possible to apply small amounts of fertilizers and amendments as needed and avoid the problematic application of large amounts at once. Such small applications can help eliminate nutrient loss, leaching and groundwater contamination, among other benefits.

Plants also need air. Air plays many roles, such as removing excess heat and moisture, while providing nutrients that plants and soil need. Tunnels that don't have enough air flow can actually suffer from insufficient carbon dioxide (CO2), along with excessive heat and humidity. Many methods exist that allow you to control and customize the air flow in a tunnel to balance the need to retain heat (especially in the winter) with the need to remove excess humidity and the need for fresh air. First and foremost are drop-down side curtains, along with ridge

	GREENHOUSE	HIGH TUNNEL
PERMANENCY	Permanent (20-40 years)	Temporary (10-20 years, with plastic replaced every 3-7 years)
MATERIALS	Glass or polycarbonate panels, sometimes plastic	Usually plastic, some- times polycarbonate
COST	Higher cost	Lower cost
WHERE GROWN	Usually on benches or in containers, some- times in the ground	Usually in the ground or raised beds, sometimes in containers or grow bags
HEATING/COOLING	Active, usually HVAC type systems	Passive*

*Many high tunnels now also use supplemental heating and cooling systems.

and end vents. While many are mechanical and require a person to open and close them, some companies now make vents that will automatically open and close based on the temperature in the tunnel, with no electricity required! Other companies make electronically controlled systems, which, coupled with modern Internet technology, let you check on—and open and close—the tunnel with your phone.

If there is one area of a tunnel to automate as much as possible, especially if you are away from home a lot, it would be the venting. Storms come and go in the summer, and it is generally best to close a tunnel completely when a storm strikes. But you can't do that from the office if your tunnel is all manual. Instead, imagine pulling up your high tunnel on your phone and closing the sidewalls and ridge vents while at work ten miles away. Or imagine that instead of having to rush out of bed in the middle of the night because of a thunderstorm the Weather Channel failed to warn you about, you just tap a few buttons and go back to sleep. That is technology that truly serves us!

THE OLD IS NEW AGAIN

When it comes to regulating colder temperatures, greenhouses and tunnels generally still depend on conventional approaches (such as electric and wood-powered methods) to provide supplemental heat. There are two interesting innovations in this area that use the power of thermal mass, although truth be told, both are old approaches.

The walipini (meaning "place of warmth") is an underground greenhouse that uses the earth, venting and good solar orientation to control the inside environment. The earth may also be lined with stones or similar material to create a heat sink. Depending on location and soil, plants are grown in the ground or in raised beds with soil brought in for growing.

A Chinese-style high tunnel, which can refer to either tunnels or greenhouses, involves a structure that generally has a southern orientation and a northern wall made of materials that serve as a thermal sink. This northern wall is crucial to maintaining the structure's temperature stability—during the day, it helps keep the structure cooler by absorbing and storing incoming solar energy, while at night it keeps the structure warmer by slowly releasing that stored heat. The structure may be either partially or fully above-ground. Chinese-style structures will sometimes still use supplemental heat sources as well, but in many climates, they may not need them.

UNIQUE GROWING ENVIRONMENT

Greenhouses and high tunnels are a unique growing environment. Because the square footage in a tunnel is limited compared to outdoor space, as well as more expensive, more valuable and subject to specific disease and pest pressures, growers have developed particular plant varieties that perform best in this environment. Many are specifically adapted for greenhouse growing conditions, including lettuces that grow more upright (to use less space per large head), pelleted seeds that allow tight and accurate spacing of carrots and other small seeded crops.

All of these developments are a good thing. Three-week-old lettuce that requires a three-thousand-mile cold chain journey to reach our plates (and now may be grown in plastic pots on glyphosate-sterilized soil and yet still carry an organic label!) isn't a good use of technology or of the resources that make such technology possible—but year-round growing that gives people more local access to fresh foods is. High tunnels and greenhouses are helping make this happen.

John Moody is the fortunate husband to Jessica, father to five fantastic kids and a well-known writer and speaker on issues relating to health, homesteading and more. Embracing the wisdom of Weston Price allowed him to save his health and help countless others over the years. John's book, The Frugal Homesteader, is available at homesteaderhandbook. com. Fantastic traditional foods like elderberry syrup made by his farm and family can be found at abbyselderberry.com.

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HEALTHY SOFT FOOD ARTICLE YOUR HELP NEEDED!

Writer Katie Singer is working on a story about using raw milk, the baby formula in *Nourishing Traditions* and other nutrient-dense soft foods for people with dental challenges or stomach tubes.

If you have any experience with using soft food in this way, a story to share or know someone who does, please send the information with your phone number to healthysoftfood@gmail.com or ask the other person to do so.

Wise Traditions Podcast Interviews INTERVIEW WITH THEODORA SCARATO



Hilda Labrada Gore is the producer and host of our Wise Traditions podcast and a Washington, DC, co-chapter leader. An enthusiastic communicator, Hilda is passionate about wellness on every level, which is why she is known as "holistic Hilda," She is a speaker, podcast consultant and the co-author of Podcasting Made Simple. Hilda lives in Washington, DC, with her husband, children, dog and cat. Subscribe to her blog through her website (holistichilda.com) and follow her on Instagram: @holistichilda.

HILDA LABRADA GORE: Our guest today is Theodora Scarato who is the executive director of the Environmental Health Trust (EHT). EHT is one of the leading environmental health organizations working on 5G, small cells and cell phone radiation. Theodora lectures widely and coordinates international scientific programs with scientists and research institutions on the issue of 5G, cell phones and health. We have many questions about this critical topic and will see how much we can cover in this episode.

Theodora, what exactly is 5G? Who's promoting it? Is it really going to give us faster Internet? Is that what we want? What is its impact on the environment and our health? How do we best protect ourselves from the radiation emitted from these small cell towers? How do we slow the unfettered rollout of 5G where we live? Is it true that there is going to be a big rollout in major cities in the U.S.?

THEODORA SCARATO: Yes it is. The Federal Communications Commission (FCC) and Internet companies are trying to roll out 5G. They already have test cities in place. It's going to mean millions of new mini cell towers in neighborhoods.

HG: How did you get passionate about and so involved in this topic?

TS: When I first heard about 5G, I wondered what it was. I learned it is the fifth-generation technology. What it would mean for me, as a mother and homeowner, is there would be a tower, a new pole built in front of my house or added to the utility pole out front. It would have cellular antennas at the top; at the bottom would be a utility meter, a smart meter, which would have radiation coming out of it, as well as an up-to-twenty-cubic-feet electronics box near the sidewalk. What concerned me most, as a parent having kids who would climb trees and play in the front yard, is that there would be a cell tower, a shorter tower with antennas. I began to think about that and have been researching for many years and determined it is not just that it is unsafe, it is more than that. There are so many studies showing negative effects. I knew I had to get involved.

HG: We are going to put links in our show notes to the studies you mention because we want people to know specifically what they say. Let's go back for a second before we talk about the risks and the harm involved in 5G. Will you be more specific about what these little cell towers are? Why do they need so many? What's the strategy with 5G?

TS: This is an intensification, meaning more and more towers in our neighborhoods, not just in the commercial areas where we shop or where the industrial buildings are. 5G is about connecting your cell phone to your washing machine and to all the wireless things that are in your house. They are all going to be connected. Then there are self-driving cars, which will have a lot of sensors and be connecting in real time. There are many machine-to-machine connections and phone-to-the-Cloud connections that companies are wanting in order to sell us more stuff. To make that work, the strategy is that there have to be mini cell towers in neighborhoods up to every two to ten houses. That's what companies are saying, even though they also say that they have a 5G technology that can travel much further. Some of what we are hearing doesn't make sense.

HG: So, it sounds like they are saying we need these little cell towers very close together and then they are also saying that maybe we don't? I guess there is confusion, too, because you are saying these companies want to push it on us, but I've heard that the push comes from consumer demand for faster Internet and better connections.

TS: Yes, they are saying all of that. Some of this doesn't add up. Within your home, you have your own connections that you can set up through your modem. What's not being said is that wired service is faster, safer and more secure, especially related to hacking. Hacking is a whole other issue related to 5G that could be its own podcast topic. But you can get super-fast service in your home with wires. We recommend using the safer and more secure wired communications as much as possible.

HG: And this is because wired is faster, more secure and offers less exposure to radiation. Is that the crux of the problem with 5G, that we're getting exposed to more radiation?

TS: I think the radiation is the number one issue for many people, certainly for myself. But there are many problems. There are issues of environmental impacts from all of the energy use that this explosion of interconnected technology is going to use. Plus there are the privacy issues. If everything is connected with everything else, you can easily hack into it. All of your information is being utilized by companies who are creating a picture of you as a consumer.

HG: These companies are pushing for it. But shouldn't the health and environmental implications be carefully thought through before we proceed with the installation of 5G?

TS: Senators have been calling on the FCC for proof of safety because a couple months ago it was stated that there was proof of safety, when we know there is not. In fact, what's happened in our government is that there isn't a health and safety agency whose job it is to systematically review the science to determine the radiation and effects and what will it mean for human health. There hasn't been any systematic review. I had assumed there had been. Our kids are being handed cell phones, and we're using devices more and more. Surely, I assumed, they did a study and are doing ongoing research to determine whether this is safe, and they must know what a safe level is. In fact, this was never done. In the United States, we never determined safety standards. The Environmental Protection Agency (EPA) was defunded from doing that in 1996. Here we are, two decades later, and now we are adding 5G, which is going to be using all the current frequencies and technologies and adding in higher frequencies-millimeter waves—especially in the cities. This is what the companies are saying that they are going to be using. Millimeter waves are used as a crowd control weapon because at very high levels they make your skin feel like it is burning. They are uniquely absorbed into the skin.

HG: Many scientists are now saying that there needs to be a moratorium on 5G. Over two hundred and fifty scientists are calling for a moratorium on this rollout because of the concern about cancer and because we don't have adequate safety limits.

CELEBRATING TWO MILLION DOWNLOADS

The Wise Traditions podcast recently surpassed the milestone of two million downloads! What does this mean? Each Wise Traditions podcast episode has:

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- Engaging (and entertaining) conversations led by host and producer Holistic Hilda
- · Share-ability via email or links on social media
- Thousands of listeners

Thanks to every one of you who listens! We would not have reached this milestone if you weren't tuning in and sharing the episodes with your friends.

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What's not being said is that wired service is faster, safer and more secure, especially related to hacking. I don't believe that these scientists are going to be listened to without people talking to their public officials at every level of government. HG: It is hard to believe. I'm thinking about a scene in the movie *Generation Zapped*, which is even before 5G. It is about children in schools that are too close to cell towers and the effect it has on their concentration, focus and health. They showed how it really is affecting them on a cellular level.

TS: Our cells are being affected by these frequencies. There is a study that just came out from Switzerland. They looked at teenagers who used cell phones for one year. They found—after one year—damage to the memory of those teens who held it to one side of their head. There are numerous studies on impacts to the brain. They have looked at brain cells and various parts of development. What will the impact be with a lifetime of exposure? And to our children whose brains are still developing?

HG: It is alarming! What is the likelihood that the industry or our government officials will listen to the two hundred and fifty scientists you mentioned who are trying to wave a flag of warning for us all? TS: I think this is a case of "many hands make light work." I don't believe that these scientists are going to be listened to without people talking to their public officials at every level of government saying "you need to look at this." And the issue is urgent. It cannot wait. We had the National Toxicology Program (NTP) study results released earlier this year. This was a two-decade study, first initiated in 1999. The FDA nominated this study in 1999 because it said, "We don't know what the long-term effect of this radiation exposure will be. Animal studies need to be done to understand this. Of course, you wouldn't want to test humans. You can't expose humans in research studies to this." But that is what we're doing! We're doing a huge human experiment and know what the outcome may be on several levels. You can read online what they found with this thirty-million-dollar NTP study with Dr. Ronald Melnick. He said it was designed to look at the assumptions that underlie our current radiation limits-the FCC limits for radiofrequency radiation limits in the U.S. It failed the test because the conclusion was clear evidence of cancer in the schwannomas of

WHAT FOLKS ARE SAYING ABOUT THE SHOW

I CAN'T STOP LISTENING! "I absolutely love this podcast. The information shared is important for everyone to know, and broken down so everyone can grasp it. And each episode gives you at least one take-away—one step you can take RIGHT NOW to live a healthier life. This is what people need to be hearing!" ~Weasellanne on iTunes

CAN'T GET ENOUGH. "As a young mom who is doing my best to raise healthy kids and to have a healthy lifestyle myself, I am continually inspired by the content on this podcast. Thanks for the quality information!" ~with quiet hands on iTunes

LOVE IT! "We love WAPF! It has helped change our lives and raise happy children. Thanks for taking theinformation to the air waves." ~monkey772 on iTunes

Please rate and review the show yourself on iTunes. It will help us build on the momentum of the program. And if you haven't tuned in yet, here are a few quotes from recent guests to whet your appetite for more.

"One of the secrets of life is to spend more time in that space of confluence: of what you are skilled at, know and love." Joel Salatin, Wise Traditions podcast #180, "Joel Salatin Tells All"

"At thirty-five, this is when your health catches up to you. Now we're dealing with the ill effects of these bad dietary recommendations and the bad ideas we've had about food for so long. Our parents have suffered, and we have to avoid that same fate. And we also have to be the ones to help turn things around."

Brian Sanders, Wise Traditions podcast #181, "Food Lies Exposed"

"Begin to do something to change your way of living, to increase your body's net negative charge. Get blue blockers, start adding more fat, limit your carbohydrates."

Dewey Layman, Wise Traditions podcast #177, "Eating Light"

the heart in rats. There was also damage to the ventricle of the heart in both male and female animals. There was some evidence of glioma of the brain and DNA damage. If this radiation were safe, that simply shouldn't have happened because the exposure was so carefully kept to the proper limits. That has capped off the research in the sense that it gives us strong animal evidence as a final result.

HG: What should we do to protect ourselves?

TS: I'm in Montgomery County, Maryland, where they were about to put forward a zoning ordinance which would have opened the floodgates to putting up these small cell antennas in our front yards. When people organized and advocated by talking to their elected officials, attending meetings, testifying and really looking at this issue, the zoning change did not pass. In Takoma Park, Maryland, where they were going to pass an ordinance related to putting these up, the community members got together and said that we need to look at this, and we should see what other cities are doing, like Burlington, Massachusetts and Petaluma, California. We have a web page where we list all of the ordinances that are far more protective; some are banning wireless facilities in neighborhoods, ensuring that there is public notice or asking for radiation measurements and permit requirements that can help. All of these things were used to control this deployment and some to halt it. Cities can use their authority to make changes, but the people need to get organized and educated in order to educate city officials. This is happening nationwide.

HG: Can you tell us about the exemption the firefighters in California got on their firehouse?

TS: At every level, the FCC and companies are trying to put up these small cells as easily as possible without people stopping them by saying they don't want one in their neighborhood. One of the things that is happening is state streamlining bills—about twenty-one have passed. The state passed a bill that takes away a lot of the city's authority to regulate. A city could say that they want them to be a couple hundred feet from homes, but the streamlining bills remove that so companies don't have to deal with a city that doesn't want a small cell right in people's front yards. There was a bill in California, SB-649, that was moving forward, but the firefighters have long fought to keep these from being placed on their stations because of research that was done years ago showing neurological effects to firefighters. You can go online and watch them testify on this. They lobbied hard not to have these on their stations and were able to get themselves carved out of SB-649.

HG: Did they cite health reasons as the basis for the exemption?



Eighty-five years after Dr. Price's pioneering studies...

Hilda Labrada Gore, our Wise Traditions podcast host, will be retracing his footsteps this September 2019 in Australia. Plans are in the works for her to visit the following indigenous communities: VIC (Aug 31, Sept 1 & 3) • Sydney NSW (Sept 4, 5 & 7) Tweed Shire NSW (Sept 12) • Toowoomba Qld (Sept 14) Sunshine Coast Qld (Sept 15) • Atherton Tablelands Qld (Sept 28, 29)

Other events on the itinerary include an indigenous food feast in Victoria, a ground-breaking seminar in Sydney, interactive education on WAPF principles in Toowoomba QLD, and the Ooray Plum Festival in Atherton Tablelands Qld.

Visit the Facebook pages of the WAPF chapter leaders in Australia for more details or go to Hilda's website: **holistichilda.com**. And please support this fantastic initiative. Just go to **indiegogo.com** and type **"Retracing the Footsteps of Dr. Price Part 2"** in the search bar and give a gift of any size.



TS: They've been talking about health for a long time in California. Health is a concern that they've raised. There is a CBS piece that shows interviews with firefighters and the researcher who found the neurological effects. There is one testimony where a firefighter compares this issue to cigarettes. He says, "This is not safe for us and remember when we thought cigarettes were safe?"

HG: Please tell us more about what we can do to protect ourselves. We can use landlines for our phones and wired Internet for our computers. What else can we do personally, and where do we go to get our voices heard?

TS: There is a lot you can do. Using wires is safe, so as much as you can, use wired technology. If you have long phone calls to make, make them on a wired phone. If you don't have a copper line, you can get voice over IP (VoIP) or a phone through your Internet provider. Hopefully you can do this at work and in your house. It is a good idea to decrease exposure to your cell phone by keeping it away from your head and using the speaker. We have a list of ways to reduce exposure on ehtrust.org. Thinking about wired accessories at home is for more than just your computer, which can be wired with an Ethernet, but also your mouse, keyboard and speakers.

In terms of 5G, be an advocate first on your very local level. Educate and talk to your neighbors. We had a teach-in at Takoma Park where six people presented on the health issues, policy issues, what the city can do and what's happening in other cities. Have meetings educating the community and start meeting with your local officials about an ordinance that they can pass to control the unfettered rollout. Then there needs to be action at the state level to halt streamlining bills, which strip away local authority. At the federal level, there are bills moving forward that will be nationwide, pulling out a lot of the authority of local governments to protect their communities. Regulations are moving forward with the FCC and in Congress to strip the rights of state and local governments to have authority as to where these small cells are to be placed. It is really important to contact your federal elected officials and ask them to address this immediately by not supporting bills that are going to allow this rollout, sending them the International Appeal to Stop 5G on Earth and in Space (5gspaceappeal.org/the-appeal/) and asking that they address this issue.

The second piece is that at the federal level, our health and safety agencies are not doing their job. The Food and Drug Administration (FDA) should be asking the EPA to do a systematic review of the science and develop adequate safety limits. Our elected officials should be asking the EPA and the FCC to ensure that our regulations are adequate to protect human health by doing a scientific review of the literature.

HG: Isn't there some kind of act that limits our referring to health concerns when we're talking about this new technology?

TS: Yes. I couldn't believe when I was told, when working to keep cell towers away from schools, that you aren't allowed to make a decision

about cell tower placement based on health. As I started to look into that, I found that the Telecommunications Act of 1996, which was the most heavily lobbied bill if you look at the money, says in section 104 that as long as the radiation output doesn't exceed FCC limits, you cannot object based on environmental concerns. This has been interpreted to prevent referring to health concerns, and many would say that it is an overreach of the statute. Your officials are going to be told that they can't talk about health because it would violate that Act. How is it that we have a law that is being interpreted to mean that we can't be advocates for our family's health, when we're talking about a cell tower in front of our home? There are numerous studies that have shown harmful effects.

HG: That is absurd and unthinkable.

TS: Yes. And cities can be sued if the policymakers talk about doing this because of health concerns. Many legal experts are saying that this is an overreach of the statute. I know that in our meetings, the officials will say, "You know we can't talk about health concerns because of the Telecom Act." The people can testify and talk about it but the officials feel like their hands are tied.

HG: It may be an overreach in understanding of that particular provision, but that shouldn't silence our voices. What is happening in other countries regarding 5G and wireless cell towers?

TS: It is really interesting. First, in the U.S. we have among the highest allowable radiation limits for cell tower radiation. We allow a lot more than several other countries like Italy, China, Russia, Switzerland and Poland. What is happening is that in those countries that have more protective rules around cell tower radiation and cellular antenna radiation, the industry is stating that they can't roll out 5G because they need to change the governmental limits in order to fully deploy 5G. They are putting millions of dollars into advertising and lobbying to get these countries to change their laws. Many people are organizing in other countries. I just read a letter from Greece where they are active against it. I know in Poland and in Switzerland that doctors are stating that they don't think this is a good idea because of what they know about the science. Certainly, they are saying there is absolutely no proof of safety for this radiation. Knowing what we know about current wireless technology, it is not safe. Scientists are saying that it is a human carcinogen. There are many other effects, like increasing inflammation in the body, everything from headaches to affecting the reproductive system. Knowing that, we should not be moving forward with a new technology that is going to exponentially increase the radiation, so much so that you have to change other country's limits. That does not make sense.

HG: Even if we understand this intellectually, we might find resistance within ourselves to act on what we've heard. There is an emotional component here. Can you address that?

TS: Yes. I loved my cell phone. When I first learned about this issue, I had Wi-Fi in my house. I loved texting and sending pictures. It was hard for me to believe. When I talk to other people, we love this technology, and we've become so dependent on it and use it at work, for entertainment and socially. We don't want to believe that it could be harmful or that we may have exposed our children to something that could harm them. Although it was unknowing, I know I used to let my young children use the cell phone. I think that it is really hard to swallow sometimes, all the time, that we personally need to change. HG: It is hard. I've heard this phrase, "Know better, do better." In other words, we didn't know better at first, but now that we are aware, we can make better choices. It is hard to imagine a complete overhaul where your computer gets Ethernet in your home, and you only use a landline. If you can't do it all, just make some small adjustments. That's how I would proceed. Otherwise, it can be quite overwhelming.

TS: I made a series of small steps that made sense for me. Each time I took a step, I saw that it was doable. First, it was changing my relationship with my cell phone. It was the hardest thing because it used to be that if I couldn't find my phone, I would be stressed out and my whole life ended. What would I do because I had no phone? Now my phone is generally off. That took time. Even plugging in the computer wasn't that difficult as I just had to get an adapter. I sit at the same desk all the time so it wasn't that hard. I think that with the small changes that take time but are doable, you can address a significant amount of personal exposure from devices that are close to your body.

We are seeing what is happening in communities where people really can make a difference in getting their cities to take a more protective stance. I've seen it time and time again. Here in Takoma Park, there was a turnaround with the city council within two weeks. Once they had the information and saw what other cities were doing, they looked at what information they needed to be able to have the authority to decide what they wanted in their neighborhood.

WISE TRADITIONS IN SPANISH



To find articles and brochures in Spanish and to link to our Spanish Facebook, YouTube and Podcast pages, visit our Spanish page at westonaprice.org/spanish/

In the U.S. we have among the highest allowable radiation limits for cell tower radiation. This is about people and communities being able to say what they want in their street and how they want to use technology. It just makes sense that we should be a part of the process, rather than companies telling us what to do and how to do it.

HG: Rather than being a passive guinea pig in a huge, worldwide experiment.

TS: It's involuntary exposure. People really don't know. Once people start to understand that there is going to be a pole in their front yard or that the street light will be turned into one, they don't want or need it. They already have the Internet in their home to serve their needs. Why would it be needed in a neighborhood? Once people start to connect the dots, they ask to review the information and do what makes sense and is safe for their children and their future. It doesn't make sense to roll something out if you wonder whether it is safe. People think since they aren't scientists and don't understand the science, they cannot speak up. But we all know enough to know that if there has been chicken salad in your fridge for several days, you shouldn't feed it to your kids. We often take the precautionary approach, which many people agree with. In this case, we have so much science and so many studies that have found harmful effects. I think the situation is urgent.

HG: As we wrap up, what have we seen in terms of the effects of these waves on nature?

TS: There is a substantial body of research about this. For example, research shows that with wireless frequencies, there are biochemical

changes in bees that are harmful and stressful. In terms of birds, there are effects to their navigation and reproduction. Trees are of concern. If you have a small cell in front of your house, the antennas could be near your trees. There is a lot of research showing damage to plants and trees. On the EHT website, we have a number of these types of studies and reviews.

HG: If it is hurting birds, bees and trees, then it is very likely hurting us as well. I think this is a powerful note to end on. Hopefully we'll all take to heart your advice on how to act on this information on a personal, local and global level.

This Wise Traditions podcast, "5G Near Me," first aired on January 20, 2019 as episode 171. See westonaprice.org/podcast/5g-near-me/ for a list of resources referred to in the podcast. Thanks to Amy Mattias for transcribing our podcasts.



Long-time friends from Honeoye Falls, New York, Laura Villanti, Sarah Kamm and Kristine Brassie enjoying the 19th annual Wise Traditions Conference together.

REMEMBERING KRISTINE BRASSIE

It is with great sadness that I share with each of you that our wonderful community member, Kristine Brassie, and my dear friend and co-leader of our chapter has passed away. Many of you have had the great fortune of meeting Kristine at one of the events we hosted together, including several Nourishing Our Children gatherings over the past seven years. Through Kristine's efforts with these events, she helped bring the teachings of Dr. Weston A. Price to a few hundred or more people in our region. Kristine and I were roommates for every conference!

Kristine lived every minute of her life with love, joy and compassion. She had a heart that bubbled with joy and radiance. For those of you who met her in person, you know this to be true.

In the obituary, the family has asked for donations in honor of Kristine to be given to either the Honeoye Falls Lima School (where Kristine graduated and her children attend) Scholarship Fund or our local WAPF chapter.

Laura Vallenti, Chapter Leader, Rochester, New York

The Hacking of the American Mind: The Science Behind the Corporate Takeover of Our Bodies and Brains By Dr. Robert H. Lustig Avery Publishing Group

Dr. Robert Lustig is a pediatric endocrinologist and obesity research scientist at the University of California-San Francisco. He has become alarmed and saddened by the increase in children developing chronic diseases formerly only seen in adults, such as type 2 diabetes. He offers some of the reasons why our nation's children, as well as adults, are all increasingly sick and discusses what we can do about it.

Two caveats: Lustig adheres to "medical doctor opinions" about the value of pharmacology for depression; he also places ultimate faith in the Mediterranean diet. Otherwise, his conclusions about how to stem the tide of chronically broken bodies and dysfunctional brains are right on. In his conclusion, he offers the key to happiness, and I personally believe he is correct.

Lustig opens with a John Butler Yeats quote: "Happiness is neither virtue nor pleasure, not this thing nor that, but simply growth. We are happy when we are growing." Distinguishing between pleasure (reward) and happiness (contentment), he explains that our twin modern epidemics of addiction and depression stem from too much pleasure and too little happiness.

Reward is short-lived (about an hour). How long does a person remember the pleasure of going for that second piece of chocolate cake? Contentment, on the other hand, is long-lasting. It is that sense of achievement you feel watching your children succeed in life, or witnessing the garden you planted in the spring grow and provide delicious produce in the summer and fall. Reward is also a fight-or-flight type of excitement with blood pressure and heart rate going up—such as watching your horse run in a big race. Contentment slows down your heart rate, lowers your blood pressure and leaves you feeling calmer. (Reflect on a day at the beach with your family.) Finally, reward is driven by dopamine and contentment by serotonin. Both are neurotransmitters but work very differently.

The book's first part covers the neuroscience of addiction in considerable depth, with a focus on dopamine. Lustig states, "You might call dopamine the dark underbelly of our consumer culture. It's the driver of desire, the purveyor of pleasure and the neurotransmitter of novelty, the lever that business pushes to keep our economy going, but at a clear, perceptible, and increasing cost. . . .We are perpetually in need of the next shiny object." Lustig addresses the problems and core similarities of modern addictions that include opioids, alcohol, tobacco, Netflix binging, sugar, texting, Internet surfing and social media.

Serotonin is the neurotransmitter associated with contentment. While Lustig believes that SSRI drugs can help very depressed people, he acknowledges that they don't work for everyone, nor do they work forever. One of serotonin's precursors is tryptophan. The amount of tryptophan in your diet influences how well you sleep and your level of contentment. People who eat eggs and fish have the highest blood levels of tryptophan. Lustig points out that many processed foods do not contain eggs or fish, both of which are tricky to process and allergens to some. For people who rely mainly on processed foods, their diet is likely quite low in tryptophan.

Lustig also admits that animal feed determines the quality of the amino acids in the animal's meat. Corn-fed beef is lower in tryptophan than grass-fed beef, and the same goes for corn-fed chicken. This is yet another reason that most Americans are short on tryptophan in their diet. Please pass the grass-fed—or better yet pastured—beef!

Lustig reviews how our intake of refined sugar has increased through the centuries. People in the Middle Ages used sugar in tiny amounts. Up through the mid-1900s, sugar was a condiment, eaten in modest amounts. In the last fifty years, however, sugar has become a



Our twin modern epidemics of addiction and depression stem from too much pleasure and too little happiness.

dietary staple. It is addictive for the same reasons and through the same mechanisms as alcohol. Metabolic syndrome (including heart disease, hypertension, blood lipid problems, type 2 diabetes, nonalcoholic fatty liver disease, and chronic kidney disease) is on the rise mostly because of this rather new dietary staple.

Lustig also covers some of the government policies that have put the interests of corporations before people and helped bring us to the level of illness that we are experiencing as a nation. The Supreme Court was instrumental in allowing the "relentless marketing of products." The appointment of Justice Lewis Powell to the Supreme Court in 1971 was a game-changer for personal rights, with the end result that corporations now have both the rights of corporations and the rights of individuals.

In the mid-1970s, Justice Powell voted with the majority on some very important cases, including *Va. State Pharmacy Board v. Va. Citizen Consumer Council* (1976), which allowed for the drug ads that we now see on television; *Buckley v. Valeo* (1976), which did away with limitations on campaign spending and individual donations in elections; and *First National Bank of Boston v. Bellotti* (1978), for which Powell wrote the majority opinion. This latter case basically said that corporations could say whatever they wanted and could vote with their dollars.

Lustig also reports the good news that we can take back control and offers some strategies to do so. These include connecting through religion, social support and conversation; contributing through altruism, volunteerism and philanthropy; coping through sleep, mindfulness and exercise; and cooking. In fact, his final conclusion, which weaves together all of the strategies, is the part I love most (emphasis his): "I offer to you my single most important key to happiness: cook real food for yourself, for your friends, and for your family. It's connection in that you will be sitting down with people you like (and maybe even love); it's contribution because you are making something worthwhile; it's focusing so it's easier to cope and unless you spike with something, it's non-addictive." By cooking real food, Lustig adds, "You may lose weight, and you will definitely reduce your risk for all of the chronic diseases of metabolic syndrome. And you will be sticking it to the companies who are trying to addict you and your family."

I wish this could be an unqualified Thumbs Up, but unfortunately, the food Lustig wants us to cook is the "Mediterranean Diet," with lots of fish, beans and greens, and not much beef, bacon, butter or broth. I love the emphasis on cooking, but if Lustig cooked a Wise Traditions diet, he would be so much happier!

Nevertheless, my thumb is UP! And my hat is off to Dr. Lustig for writing such an informative book that unravels so many of the threads that have brought us to this point of crisis as a nation.

Review by Nancy Teas-Crain

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.

Horrors of Vaccination Exposed and Illustrated By Charles Michael Higgins The De Vinne Press

Originally published in 1920, this book is thankfully available in various formats via Amazon. At the time of this writing, you can find an original copy for three hundred forty-two dollars, the Kindle version for free and a few other imprints, such as Forgotten Books, selling it in paperback for less than twenty dollars.

Higgins was a self-made American success story. He emigrated from Ireland to Brooklyn, New York, at the age of six, left school at age nine and became a self-taught draftsman. While employed at the *Scientific News*, he saw the need for a new type of ink and promptly invented one in his sister's kitchen, leading to great commercial and professional success. Later on, he served on the boards of various organizations, was the treasurer of the Anti-Vaccination League of America and remained a well-respected member of his community of Park Slope, Brooklyn, where he raised his family and spent his entire life.

Higgins condemned the practice of compulsory vaccination and wrote and disseminated many pamphlets on the subject, at his own expense. His *Horrors of Vaccination* was written as an open letter to President Woodrow Wilson with the intent of convincing the president to abolish the practice of compulsory vaccination in the United States Army and Navy.

Higgins outlined many arguments as to why this practice should immediately cease. First, he showed that the smallpox vaccine was consistently the cause of more fatalities than natural smallpox. He also presented convincing evidence that the vaccine caused epidemics of not only smallpox but other dangerous diseases such as lockjaw (tetanus), meningitis, foot and mouth disease, pneumonia, septicemia and infantile paralysis. He even suggested that the practice of forced vaccination of military men could have been the cause of the great influenza epidemic of 1918.

As an addendum to this petition to the President, the book contains several case studies compiled by a contemporary of Higgins who was motivated to research the dangers of vaccination after his only son died following vaccination at the age of eleven. Following these case studies are heart-wrenching letters addressed to Higgins from parents of children who died following vaccination. Most of the children had been vaccinated as a condition of school attendance.

Higgins spent tens of thousands of dollars on newspaper campaigns to get the word out about the dangers of compulsory vaccination, but, as he wrote, "the medical powers in the State, which profit by vaccination, had too much influence in the legislature." He also made a valiant but ultimately unsuccessful attempt to add an amendment to the Constitution to make it illegal to force vaccination as a condition of education, and also sought to introduce laws that would compensate parents whose children were maimed or killed by vaccination.

Higgins spent a good number of pages eloquently discussing why the United States Constitution and Declaration of Independence should protect us from compulsory vaccination. In addition to these arguments, he plainly showed that vaccination, also termed "inoculation" in his day—and which he also referred to as "blood poisoning"—is a frequent cause of illness and death, and much more dangerous and deadly than the natural diseases, namely smallpox, that it purports to protect against.

If one hopes to have a clearer understanding of the history of vaccination in the era of smallpox, this book is highly recommended. Indeed, clear and convincing evidence of the dangers of vaccination has been around since the time of Jenner. And there have been a great many intelligent and courageous persons, like Higgins, who have made heroic efforts to make Continued on page 70.



Higgins condemned the practice of compulsory vaccination and wrote and disseminated many pamphlets on the subject, at his own expense.



Minimize Injury, Maximize Performance: A Sports Parent's Survival Guide By Dr. Tommy John with Myatt Murphy Da Capo Press

If you are a baseball fan, you have heard of Tommy John surgery. If you have not heard of it, don't kid yourself—you are not a fan. Why do I say that? Because, in Major League Baseball (MLB), it is pervasive. Twenty-five percent of all MLB players have had the surgery, which replaces a torn elbow ligament with a tendon from elsewhere in the body. The surgery has exploded in the last few decades. That is bad news, but the really bad news is this: Tommy John surgery is being performed more often on young athletes (less than twenty years old) than on professional athletes. Young people under age twenty should never need surgery like that.

If you are a sports fan in general, you will have noticed an increase in injuries in all sports. What is going on? Dr. John (son of the famous MLB pitcher for whom Tommy John surgery was named) covers all the bases in this book and quickly hones in on some of the primary root causes, including love of money. You will almost always find the love of money at the root of major problems. Childhood sports organizations rake in billions of dollars per year and strongly encourage kids to become active in sports at an early age. They push the kids to participate as often as possible and year-round if possible. So, what's wrong with that?

All sports overwork certain muscle groups and the overdoing is what causes damage. Human bodies are designed to move in certain ways and do a variety of things. We are not designed to do the same thing over and over with machine-like repetition for hours at a time. Children, especially, should be playing—just playing—not engaging in intense sports competition. There are several reasons for this.

Children's bodies are still developing, and they are still learning the basics of how to move. Most can't stand with their eyes closed without losing their balance. Most can't balance on one leg. Children are also still developing mentally and psychologically. When their whole life is soccer or baseball or any one sport, that is all they think about and all they know how to talk about. Well-rounded personalities and social skills require well-rounded experience. Children can play sports for fun but should play a variety of sports, not just one and not just sports.

Research is also showing how damaging electronic devices can be. Video games that require fast reactions (or you're "dead") create stress. Sports competitions that require good performance or you disappoint your parents and coaches create stress. They overtax the parasympathetic nervous system, which shuts down your immune system. Intense sports competition requires your immune system to be at its best to recover from any muscle or tendon damage.

The idea that a child must start serious athletic training by the age of five so as not to be hopelessly behind for life is wrong and destructive. I've heard more than one older male comedian joke about realizing—after years of struggling to better their athletic performance that Little League was the zenith of their career. Why? In many cases, because too much Little League wrecked them.

Horrors, Continued from page 69.

the public aware of vaccination's risks. English doctor James J. Garth Wilkinson stated in 1876, "This is blood assassination. This amazing act is the homicidal insanity of a whole profession."

Higgins' conclusion was that vaccination

should be a voluntary procedure and medical freedom upheld as the inherent right of every individual. If only the powers-that-be could be compelled to hear his simple logic, instead of remaining servants to a for-profit medical cartel. Two thumbs UP for this well-researched book, one hundred years old but still dramatically relevant and valuable to today's reader. Review by Jennifer Grafiada
All Thumbs Book Reviews

Often, the popular wisdom is not only wrong but doing a lot of damage. In the U.S., we have some very wrong ideas about how to build a strong body. One thing we do is overfocus on throwing speed, for example, but ignore control and proper form. Another big mistake is concentrating on building muscles. We have athletes with huge "guns" that look very impressive, but they haven't given the same attention to tendons, ligaments and bones. Big muscles require strong support and when they don't have it, the athlete will tear himself apart sooner or later. I have known a number of muscular bodybuilders who comment that they are almost constantly in pain. They think that is just the way it has to be.

Many pages in this book emphasize the importance of nutrition. If you don't get that right, forget about any athletic career that is more physically challenging than chess. Good advice includes avoiding anything that has a longer shelf life than you do. Good fats are essential and grass-fed butter is one of his first recommendations, along with coconut oil, bacon, lard, real meat (not meat-like substances) and bone broth. Fruit and vegetable drinks do not make the "good" list, nor do sports drinks. In fact, sports drinks erode teeth more than soda. After studying the research, he goes against the crowd on the subject of water. Too much water dehydrates. At best, only a small percentage of pure water gets to where it needs to go, and the rest goes right through you. Hydration from food-including whole fruits and veggies, not

just the juice—is more effective. Kombucha is on his recommended list.

While most of Dr. John's nutritional advice is very good, not every detail hits a home run when compared with a Wise Traditions diet. His views on milk differ from what you will find on the WAPF website or realmilk.com. He does recognize that raw cow milk is preferable to pasteurized milk. He recommends cod liver oil, but I would look on the WAPF cod liver oil web page for more details on which one to take.

I get a kick out of punching holes in popular paradigms, so I will mention a few more details. "Everyone knows you should put ice on every booboo and injury." Wrong. Ice does not help and slows down the healing process in many cases. "Everyone knows you should stretch before you work out or compete." Wrong. "Long-distance running is a good way to warm up." Wrong. "Long-distance running is a good thing to do after a workout to reduce soreness." Wrong. "Long-distance running is good conditioning for sports in general." Wrong, unless your sport is track or some aerobic sport. Most sports, baseball in particular, are anaerobic. "Endurance training is good for you." *Wrong.* It increases cortisol (which can degrade muscle), reduces bone density and lowers testosterone. If you are pronating or making other incorrect muscle movements, you are tearing down those joints. If you are going to do a lot of running, you really need to know what you are doing. If you don't know, get this book.

People have some funny ideas about how much to exercise. I remember one coworker talking about a "run till you barf" contest. Why would you do that? Does it impress the ladies? I have occasionally brought that up in casual conversation which, OK, tells you something about my conversational skills. Be that as it may, I have not encountered any women who were impressed by that. Endless, obsessive exercise is not the path to good health or any other benefit.

If you are a parent of an aspiring athlete, or physically active yourself or thinking of bending at the waist, I have not seen a better book than this to keep you out of the emergency room. The thumb is UP.

Review by Tim Boyd

SUPPORT AND SYMPATHY

Please join us in an expression of support and sympathy for George Diaz, husband of longtime chapter leader and exhibit coordinator Maureen Diaz. George recently suffered a heart attack. He is healing remarkably well, but he and Maureen will be unable to work for a period during his healing journey. Many of you remember George helping out on countless occasions at our conferences and his support of Maureen who helped plan conference menus and partnered with hotel staff to execute delicious conference meals.

Donations for medical expenses are gratefully accepted at www.gofundme.com/1nx832hi6o?utm.

All Thumbs Book Reviews



Fifty Shades of Grain: The Naked Truth About Eating Bread and Feeling Great By Caroline Angel

In the modern era, many people have a lovehate relationship with bread. Gluten sensitivity, adulterated ingredients, the use of glyphosate as a wheat dessicant—these are just some of the factors that have contributed to a cautious approach to bread. However, as Caroline Angel points out in this book, those who avoid bread often miss it terribly because "[T]here are few things more enjoyable than a slice of artisan bread, toasted and slathered with butter." Gluten-free breads just are not the same.

In *Fifty Shades of Grain*, Angel says that the key to eating bread and feeling great is "out with the new" and "in with the old." In a short seventy pages, Angel describes the numerous, health-jeopardizing features of modern grain which include not just glyphosate but other pesticides, insecticides and fungicides; "synthetic soil"; mold and mycotoxins; excessive hybridization; removal of nutrients; rancidity; bleaching agents; and more. When it comes to making bread, the improper preparation of whole grains compounds the disaster.

These toxic practices are contributing to widespread gluten sensitivity and intolerance,

leading to leaky gut and a variety of conditions associated with systemic inflammation. Angel says that for these individuals, avoidance of modern grain is "imperative." However, once people have adopted a healthy lifestyle, begun to heal and restored balance, it is entirely possible to introduce ancient grains—slowly—and "live like a centenarian."

There are a few key criteria: bread should be organically grown and traditionally processed (stone-ground) and made using age-old sourdough fermentation practices. Angel also offers several words of caution. First, don't go overboard-our ancestors did not consume whole grains in the large amounts so common today. Second, don't fall into the trap of solely scapegoating gluten. Angel says, "It's not the gluten alone, it's a combination of all the things done to modern and other industrialized grains." She also notes that "just because it is gluten-free doesn't mean it is crap-free." Although there are a couple of pages of listings for preferred brands and one sourdough recipe at the close of the book, Angel's primary focus is to warn readers about modern grain's risks while providing encouragement to explore ancient grains and traditional preparation practices.

Review by Merinda Teller

OFFAL GOOD: COOKING FROM THE HEART, WITH GUTS by CHRIS COSENTINO with MICHAEL HARLAN TURKELL

In the introduction to this beautifully photographed cookbook that anyone who is curious or enthusiastic about organ meats will want to rush out and buy, chef Chris Cosentino notes that one of his earliest childhood experiences involved running away from his grandmother's sulfuric-smelling tripe. Cosentino—a "Ritalin kid" who couldn't concentrate on books but was attracted to the hustle-bustle of restaurant cooking—went to culinary school and climbed the Bay Area restaurant ladder, including a stint at Chez Panisse. Later, chance encounters with a used "variety meats" cookbook, Asian cuisine and innovative ranchers spurred him to prove that "cuts that others didn't or wouldn't" use could be delicious. Offal Good is the result: "a tour through the anatomy, but from a cook's view." The first fifty pages of text and photos take the reader through a comprehensive survey of cow, pig, sheep and fowl parts—skin, head, tongue, ears, brain, sweetbreads, lungs, heart, blood, liver, stomach, spleen, kidneys, intestines, fat, feet, bones, cartilage, tendons, tail and "odd parts" such as cow's udders, testicles, gizzards and even cockscomb—and, importantly, offer suggestions on where to find them. The recipes in the next four animal-specific chapters have colorful titles such as "This is your brain on drugs" (a tribute to the 1980s public service announcements) and "Big brain, little brain' calf's brain & testicles with Sudachi brown butter." Returning to his roots, Cosentino also has plenty of tripe recipes to share, including his "Grandma Rosalie's tripe." For the cook who, like Cosentino, is ready to prove to family or friends that offal can be delicious, this book looks capable of making converts out of many. Review by Merinda Teller

All Thumbs Book Reviews

The Fifth Vital Sign: Master Your Cycles and Optimize Your Fertility By Lisa Hendrickson-Jack

Hendrickson-Jack is a certified fertility awareness educator and holistic reproductive health pracitioner who has dedicated her career to providing women with practical knowledge to manage their family planning and reproductive health—something our medical and educational systems have consistently failed to do.

The author begins with an in-depth discussion about the normal menstrual cycle, noting that charting one's cycle can be up to 99.4 percent effective when used for birth control, while also serving as a way to identify one's fertility window confidently.

She then discusses conditions that can interfere with normal cycling, including thyroid disorders, polycystic ovary syndrome (PCOS) and hypothalamic amenorrhea (HA). These conditions can be predicted by charting one's cycles, and overcome with lifestyle changes.

Hendrickson-Jack's most important chapter focuses on hormonal contraception (HC), otherwise known as the Pill. Hailed as the wonder drug that would set women free, and which did set women free from the prospect of eight children by the age of thirty, it soon became apparent that serious consequences could follow its use, infertility being just one of them. Hendrickson-Jack provides wise guidance on coming off the pill, advice for recovery from the many nutrient deficiencies it causes, support for your natural hormone system and a plan to restore fertility.



The wonderful thing about The Fifth Vital Sign is that the dietary advice is right in sync with the Weston A. Price Foundation. Hendrickson-Jack recommends lots of good fats, raw milk, pastured meats, lacto-fermented foods and bone broth. She recognizes the vital importance of vitamin A for reproductive health and recommends cod liver oil and liver for fertility and well-being. Most importantly, she warns against soy foods as contributing to thyroid problems and infertility. So many women today are struggling to find vibrant health and overcome infertility. I recommend The Fifth Vital Sign as a great place to start. The book is gentle, helpful and easy to read, and will help women regain the vital skill of reproductive control. Thank you, Lisa, for this important contribution!

Review by Sally Fallon Morell

THE CARNIVORE COOKBOOK: ZERO-CARB RECIPES FOR PEOPLE WHO REALLY LOVE ANIMALS by JESSICA HAGGARD

Many people have been duped into fearing meat, and the recent escalation of propaganda for the cow-antagonistic Green New Deal and fake meat products suggests that the duping continues. The Carnivore Cookbook offers a timely and refreshingly unapologetic antidote, pointing out how frail and weak consumers have become through animal food avoidance and overconsumption of soy. Animal foods, Haggard reminds us, are "the one group of foods that is absolutely necessary for human health and survival." The brief but helpful introduction includes tips on meat quality, underappreciated cuts, essential kitchen tools and ways to obtain meat inexpensively, with pertinent sidebar quotes from the Bible, lapsed vegans and artisan butchers as well as notables such as Fergus Henderson of nose-to-tail eating fame. One interesting sidebar discusses the uses of donkey fat. Following the introduction, the recipes cover fats and sauces, eggs, seafood and various meats, including raw meat dishes and organ meats. This basic book is not for the highly experienced or gourmet cook—most of the "zero-carb" recipes (with no grains and barely any vegetables to be found) include just three to five ingredients each and rely heavily on bacon and cheese to add flavor and texture. However, the roughly two-hundred page volume would be well suited to helping a former vegetarian or inexperienced cook learn how to render fat, make a basic cream sauce or bone broth or get comfortable preparing a variety of different animal foods in simple but palatable ways. One quibble: the cover photo features steaks with all the fat trimmed off, and while the fats chapter includes traditional fats such as lard, tallow and ghee, Haggard says nothing in the introduction about the central importance of animal fats or about the risks of overconsuming muscle meats. Review by Merinda Teller

Tim's DVD and Podcast Reviews

Dr. Gary Fettke says, "Science evolves by being challenged, not by being followed."

Why the War on Meat? The Fat Emperor Podcast #16 By Ivor Cummins https://youtu.be/p0VwjsZJmYo

Dr. Gary Fettke is an orthopedic surgeon in Australia who had the unmitigated gall to question how much sugar hospital patients were getting in their meals. For his dangerous promotion of low-carb diets, he was reported to the medical board. The medical board decided that, as an orthopedic surgeon, he was not allowed to give dietary advice to his patients even if it was shown to be medical best practice. If that was not absurd enough, he was further banned from discussing diet with his patients for the rest of his life.

Had the medical board shown the slightest hint of sanity, the decision might have been left alone. As it was, the decision was not left alone and was brought up for review. The decision was thrown out, and the board actually issued an apology. It is hard for me to imagine an arrogant board making an apology, but apparently, that is a thing. It happened. We live in strange times.

The good doctor's wife, Belinda Fettke, was not amused. And not appeased. This incident triggered a long and intense investigation into what the real agenda was and who was behind it.

The dietary guidelines that are aggressively promoted by the American Dietetic Association (ADA) and by governments around the world have clearly proven to have a very poor track record. The standard excuse for the guidelines' failure is that people are not following the guidelines. The problem with that excuse is that people *are* following the guidelines. Meat and dairy consumption has dropped significantly over the last century while cereal grain consumption has gone up, and yet the world population gets sicker and obesity rates continue to climb. We are learning all the insidious side effects of malnutrition, from obesity and physical deterioration to mental weakness, dysfunction and gullibility. So many believe every moronic thing their government-backed experts tell them.

What Belinda Fettke found was that her husband's big "crime" was not so much his lowcarb stand but his promotion of meat. Who has a problem with meat? Vegans come readily to mind. She kept drilling and filled in more details and tracked it all the way back to the temperance movement of the early 1800s. She discovered that the ADA was founded by the Seventh-Day Adventist Church.

The Fettkes are very clear that they are not against religion, not against the Seventh-Day Adventist Church and not even against vegans. If you want to live on kale, cauliflower and graham crackers, good for you. Enjoy. But when you try and force that on everybody, you have just crossed a line you cannot cross.

Dr. Fettke further found that the Adventists own the largest cereal company in Australia as well as a large number of cereal companies in the U.S. Those companies feed 10 percent of their profits back to the church. They are small but well-funded and strategically placed. They control one of the most prominent nutrition organizations in the world (ADA). They have members on medical boards everywhere and strong ties to major universities around the world, including Harvard. The corporate ties are not secret. They are all in the annual reports.

There are no accusations of evil conspiracy, but this podcast well illustrates how good intentions mixed with conflicts of interest and regulatory overreach can go wrong. It gives us one more reason not to blindly accept expert opinion just because it is "expert." Dr. Gary said, "Science evolves by being challenged, not by being followed." Someone who talks like that will turn my thumb UP every time.

Tim's DVD and Podcast Reviews

The Big Secret: A Survival Guide for the New Millennium Directed by Alex Voxx Written by Keith Harrison

We often hear that "the science is settled." That is ironically not so much a scientific statement as it is a religious statement. It implies that science is perfect, beyond question. Nothing more to see here. Are vaccines safe and effective? The science is settled. No advancement is possible.

When the "health" industry makes such a statement, we had better hope that isn't true. Half the American population has chronic disease. Americans' health is bad and getting worse. If the science is settled and there is no question we are on the best and only path, the outlook seems grim to me. It's like jumping off a one-hundred story building and believing you can fly. As you pass the fiftieth story, you see you are still airborne and conclude you can indeed fly. The science is settled. Even though you are trending down rapidly, the science is settled. Anyone who disagrees is a conspiracy theorist.

How did we get here? How were we convinced that drugs and vaccines are the only way to health? *The Big Secret* gives us the history of how John Rockefeller bought Standard Oil and eventually took over the oil business in the United States. He then took over the pharmaceutical industry. It is not a coincidence that many drugs are petroleum-based products. At the time, allopathic medicine had competition from other approaches like homeopathy and chiropractors, but as Rockefeller became known as the richest man in the world, large donations to legislators and grants to allopathic organizations nearly destroyed the competition.

The result, at this point, is that today's children are not expected to live as long as their parents. The most popular statin drugs succeed in lowering cholesterol (which is an essential nutrient in every cell of the body and the basis of all hormones) but do not prevent heart attacks. Peter Glidden, ND lists statins' side effects, which include cancer, birth defects, peripheral neuropathy, kidney failure, dementia and...death.

Do the companies test these drugs? Yes, there are lots of tests. The tests with positive outcomes get published. The tests with negative results are buried. And while the drug industry is actively causing a lot of damage, it is actively ignoring damage done by other industries. In this video, we see charts showing how liver, kidney and bladder cancers as well as strokes are rising parallel with the increasing use of glyphosate, the active ingredient in the weed-killer Roundup. Glyphosate is everywhere, and blood tests have shown it is in everybody. Aluminum and fertilizer factories dispose of fluoride waste that is too toxic to dump in landfills or streams by putting it in municipal water supplies.

The system we have today was not produced by science but by politics and a lot of money. We are well below the fiftieth floor now. You can put your faith in the experts of this system if you wish. You might want to flap harder. The thumb is UP.

Fluoridegate: An American Tragedy By David Kennedy, DDS

Fluoride is a good word to use if you want to start an argument in today's world. Is it good or bad? Does it prevent cavities or not? We often hear from the news echo chambers that there are studies showing that fluoride prevents cavities. Has anyone looked up those studies, and what do they really say? Who did those studies?

I may have mentioned before that I don't rush to accept opinions just because they are from an industry-backed expert (especially if they are paid by industry) or just because they have letters like P, H and D after their names. One subset of experts I do listen to with keen interest are experts or PhDs who have retired The system we have today was not produced by science but by politics and a lot of money.

Tim's DVD and Podcast Reviews

One colleague was forced to doctor a report to support doubling the recommended "safe" amount of fluoride. Further study showed the amount should actually be cut in half rather than doubled.

or have bullet-proof tenure—who don't have to worry about disruptions to their paycheck or other threats, or who speak up even when it costs them. This video features several such experts.

Boyd Haley, PhD, professor emeritus from the University of Kentucky, discusses infant mortality in the U.S. The U.S. is number fortytwo in the world. In other words, forty-one countries have lower infant mortality than the U.S. Sweden, at the top of the list, has dramatically lower infant mortality. They don't medicate the water with fluoride over there either. That, by itself, doesn't prove anything, but studies done by the EPA are more definitive.

Robert Carton, PhD, retired EPA scientist, recounts decision-making on what is a safe level of fluoride in the water. One colleague was forced to doctor a report to support doubling the recommended "safe" amount of fluoride. Further study showed the amount should actually be *cut in half* rather than doubled. Management ignored that. The EPA never determined the safe level. A planned lawsuit never made it to court. Another former EPA scientist, J. William Hirzy, PhD, found that EPA contractors ignored critical data in their report. When he reported that to management, they ignored that, too.

Dr. William Marcus, PhD, retired senior scientist advisor for EPA, noticed in a report on fluoride safety that the conclusion did not match the data. When that information was made public and it became known that he had a memo stating that fluoride was a probable carcinogen, the EPA fired him. He was the senior scientist advisor-the go-to expert-and they fired him for doing his job. Marcus took his whistleblowing case to court and proved that the EPA had forged time cards trying to show he submitted fraudulent time charges, showing that he was fired for nothing more than ruining their fun with fluoride. He won. His job was reinstated with back pay, court costs were paid and he went back to work. There was an appeal, and he won that, too. The troublemakers who

got him fired continued to harass him, so he launched and won another lawsuit. It was clear to him that the EPA went way over the line due to pressure from industry. This was a senior EPA scientist, not some blogger working from his mother's basement.

Fluoride has gotten everywhere. It is absorbed by plants, contaminated fruits and fruit juices and is in wine. It is in some bottled water, but you might not see that mentioned on the label. The label does tell you how much fat is in the water. Does anyone really not know there is no fat in water?

Fluorosis damages teeth and is caused by fluoride (hence the name). Other side effects of fluoride are lowered IQ and bone cancer. Marcus points out that LSAT scores are lower today than they were in the 1950s before fluoride became so widespread. There is also evidence that genetic variations in people with African or Hispanic ancestry make them more susceptible to the ill effects of fluoride. The FDA has never approved fluoride for ingestion for reducing tooth decay. The American Dental Association, National Academy of Sciences, American Medical Association and American Academy of Pediatrics all agree that baby formula made with tap water far exceeds the amount of fluoride that causes harm. The EPA doesn't care about any of this. If you don't either, perhaps you have been drinking too much tap water. The thumb is UP.999

RESTAURANT RATERS NEEDED FOR OUR NEW 12 SPOONS SITE

WAPF members: please consider being restaurant raters on our new 12 Spoons restaurant rating site. We need hundreds, if not thousands, more restaurants listed.

To register, you will need a separate 12 Spoons user name and password. Click the 12 Spoons logo on our homepage (lower right side of the home page). Follow the steps to get your user name and password.

If you rate four restaurants, let us know and we will offer one year free membership. Do eight and we will offer a discounted rate to the conference (\$250 full conference).

Proponents of vaccination cite the eradication of polio—declared in the United States in 1979 and in the Western Hemisphere in 1991 as "proof" that mass vaccination campaigns are effective. They credit polio vaccines as having single-handedly reduced polio incidence and use this as justification for today's mandatory vaccination programs, which violate the fundamental human right of bodily autonomy. What proponents of mass vaccination do not tell us is that the polio vaccine "success story" is riddled with failures and inaccuracies, both historically and today. These have largely been kept secret from the general public.

Poliomyelitis (or "polio" for short) is a contagious disease caused by an intestinal virus (called an "enterovirus") that may attack the nerve cells of the brain and spinal cord. Polio mainly affects children under the age of five and is spread through contact with contaminated feces (for example, by changing a baby's diapers) or through airborne droplets in food or water.¹ Poliovirus enters the body through the nose or mouth and then travels to the intestines where it incubates. Next, it enters the bloodstream where "anti-polio" antibodies are produced. In most cases, this stops the progression of the virus, and the individual gains permanent immunity.

PERCEPTION VERSUS REALITY

Many Americans can remember a time when children were prohibited from swimming in public pools, and newspapers published photographs of victims convalescing in iron lungs. However, as explained by Neil Z. Miller (author of the book *Vaccines: Are They Really Safe and Effective?*² and director of the ThinkTwice Global Vaccine Institute³), these images left the public with a false impression. In a 2004 paper, "The polio vaccine: a critical assessment of its arcane history, efficacy, and long-term healthrelated consequences,"¹ Miller wrote, "Many people mistakenly believe that anyone who contracts polio will become paralyzed or die." In fact, the majority of people who are infected with poliovirus do not become sick and are never even aware that they have had the infection.

The Centers for Disease Control and Prevention (CDC) currently states that approximately three-fourths of people infected with poliovirus will experience no symptoms whatsoever. About one out of four infected people will have flu-like symptoms, lasting two to five days, which may include sore throat, fever, tiredness, nausea, headache and stomach pain.⁴ About one out of two hundred people will have weakness or paralysis in their arms, legs or both; although this weakness or paralysis can last a lifetime, many individuals recover completely, and, in most, muscle function returns to some degree. Among the subset of people with paralysis, the CDC says, between two and ten out of one hundred people die "because the virus affects the muscles that help them breathe."4 Until recently (on a webpage that is no longer live),⁵ the CDC shared different numbers, asserting that only 5 percent of infected people would show any symptoms; other public health websites continue to cite those numbers.⁶

FEAR TACTICS

In the early and mid-twentieth century, few diseases frightened people more than polio—but it is important to remember that much of the fear came from false information about the disease. Dr. Suzanne Humphries, an internist and board-certified nephrologist, wrote about polio fear-mongering in her 2013 book, *Dissolving Illusions: Disease, Vaccines, and the Forgotten History*, describing how we were "indoctrinated to believe polio was a highly prevalent and contagious disease" from the early 1900s on, "despite the actual numbers of paralytic polio Few diseases frightened people more than polio but it is important to remember that much of the fear came from false information about the disease. Today, it is anyone's guess as to how many people contracted polio due to Salk's original vaccine. cases being very low."7

Helping fuel the fire, the National Foundation for Infantile Paralysis (March of Dimes) produced advertising campaigns that led everyone to believe that polio was a rampant and violent crippler. Dr. Humphries points out that individuals were subjected to horrific treatments such as tendon cutting, surgical straightening and prolonged splinting; these rushed procedures were responsible for much of the residual paralysis, deformities and lingering stiffness that victims suffered.

SALK AND THE CUTTER INCIDENT

On March 26, 1953, American physician and microbiologist Jonas Salk announced on national radio that he had successfully tested a vaccine against poliomyelitis. Presumably, the nation cheered. Because of the tremendous fear created by the advertising campaigns, parents in Canada, Finland and the United States readily offered up their children to serve as test subjects for Salk's clinical vaccine trial in 1954. Over six hundred and twenty thousand "polio pioneers" were injected with vaccine or placebo, and "more than a million others participated as 'observed' controls," in what would become the largest public health experiment in history.⁸

Licensing of Salk's polio vaccine was then fast-tracked by the U.S. Department of Health, Education, and Welfare. The government approved the vaccine for commercial use after only two hours of deliberation, persuaded by the one-year field trial that the vaccine was both "safe and effective."⁹

Unfortunately, fast-tracking the vaccine proved disastrous. In the spring of 1955, Salk's newly approved inactivated polio vaccine (IPV), manufactured by Cutter Laboratories, was administered to over four hundred thousand people, including many schoolchildren.¹⁰ Of those, over half—two hundred and twenty thousand individuals—in five Western and mid-Western states were injected with a bad batch. Because Salk's vaccine used a "killed" version of the polio germ, it "supposedly carried no risk of giving recipients 'vaccine-associated polio paralysis,"¹¹ but within days, reports of paralysis began surfacing. Within a month, the mass vaccination program against polio had to be suspended.¹² Salk's vaccine had caused seventy thousand cases of muscle weakness, one hundred and sixty-four cases of severe paralysis and ten deaths. Three fourths (75 percent) of the victims remained paralyzed for the rest of their lives.¹³

This tragedy became known as the "Cutter incident." Investigations confirmed that the formalin (or formaldehyde) used to kill the poliovirus did not do what it was supposed to do. Rather, the manufacturing process "resurrected" the poliovirus, which led to injection of live polioviruses into recipients.¹⁴ Moreover, the vaccine formulation used during the 1954 field trial had contained Merthiolate, the trade name for the thimerosal mercury compound, which, while problematic in other respects, had a viruskilling effect. However, manufacturers removed the Merthiolate from the 1955 vaccine to induce a faster antibody response in vaccine recipients, causing the vaccine to retain live viruses of a highly neurovirulent nature.7

As a result of the Cutter incident, more people developed paralysis from the 1955 vaccine than would have developed it from a wild, natural poliovirus. Moreover, children given the Cutter Laboratories vaccines were more likely to experience paralysis in their arms, suffer severe and permanent paralysis, require breathing assistance in iron lungs and die than children naturally infected with poliovirus.¹¹

Cutter Laboratories ceased manufacturing Salk's polio vaccine after the incident, but the American government reinitiated its vaccination program only twenty-one days after the suspension, allowing other laboratories to continue supplying the eager public with Salk's original vaccine. Wyeth Laboratories subsequently produced another defective, crippling Salk vaccine.¹⁵ Today, it is anyone's guess as to how many people contracted polio due to Salk's original vaccine. Theoretically, tens of millions of doses of improperly inactivated Salk vaccines may have been sold and injected into children in the U.S. and in nearly one hundred other countries before that vaccine formulation was discontinued.

POST-VACCINE INCREASE IN POLIO

Between 1923 and 1953 (before the Salk vaccine's introduction), the polio death rate in the U.S. had declined on its own by 47 percent; England had observed a similar pattern, with a 55 percent decline.¹ Following the use of Salk's vaccine between 1955 and 1963, however, cases of polio in the U.S. increased—by 50 percent from 1957 to 1958 and by 80 percent between 1958 and 1959.¹⁶

Notwithstanding the large increase in polio cases in the U.S. starting in 1955, government sleight-of-hand made the vaccine appear successful. In 1955, officials redefined "paralytic poliomyelitis" and made the diagnosis much more stringent. Prior to the vaccine's introduction, a patient only had to exhibit paralytic symptoms for twenty-four hours, and a diagnosis required no laboratory confirmation or tests to determine residual paralysis. Post-vaccine, the revised definition expanded the time period for symptoms of paralysis to a minimum of sixty days and required confirmation of residual paralysis at least twice during the course of the disease. Because paralytic poliomyelitis is rarely permanent and often lasts for only a short period of time, patients with a short paralytic duration were no longer counted as having polio.7

Another factor that served to lower the apparent incidence of polio after the vaccine's introduction was the fact that distinct diseases that had previously been grouped together under the umbrella of "polio" began to be reported as separate diseases. One of these was aseptic meningitis, an infectious disease that is often difficult to distinguish from poliovirus or other enteroviruses such as Coxsackie virus. According to Dr. Humphries, numerous other conditions were often naively mislabeled as "paralytic poliomyelitis" in the pre-vaccine but not the post-vaccine era. Transverse myelitis-a rare form of spinal cord inflammation that affects infants as young as five months old-provides one example. Approximately fourteen hundred new cases of transverse myelitis are reported every year in the U.S., leaving some of those affected permanently paralyzed and dependent on a ventilator to breathe. Pre-polio vaccination, all of these cases would have been called "polio."7 Also considered "polio" before but not after the onset of mass vaccination were undiagnosed congenital syphilis; arsenic and DDT toxicity; Guillain-Barré syndrome; provocation of limb paralysis by intramuscular injections (including vaccination) (see "Injection-Induced Polio" below); hand, foot and mouth disease; and lead poisoning.⁷ West Nile virus also has symptoms that are clinically identical to polio, to the extent that it is referred to in medical journals as "West Nile poliomyelitis." As Dr. Humphries astutely concludes, "Simply by changing the diagnostic criteria, the number of paralytic cases was predetermined to decrease in 1955-1957, whether or not any vaccine was used."⁷

IPV AND OPV

In 1963, the U.S. replaced Salk's IPV vaccine with an attenuated (weakened, not killed) oral polio vaccine (OPV) developed by American physician and microbiologist, Albert Sabin. As a live virus vaccine, it, too, was (and continues to be) capable of giving its recipients polio. Not only can OPV trigger vaccine-strain polio in recipients, it can also cause polio in those who come in contact with recently vaccinated individuals due to shedding of live vaccine-strain poliovirus in bodily fluids.¹² In validation of this very theory, Dr. Salk testified before a Senate subcommittee in 1977 that the oral polio vaccine had caused most of the polio cases in the U.S. since the early 1960s.¹⁷

Today, the U.S. has reverted to using an updated version of Salk's "killed" IPV vaccine. Meanwhile, Sabin's live OPV vaccine continues to be widely used in other parts of the world, and particularly in lower-income countries, as it is less expensive to produce.

INJECTION-INDUCED POLIO

Two additional factors contributed to the complexity of the mid-century polio situation. The first and most indisputable factor is that, as Miller documents on the ThinkTwice website, intramuscular injection of vaccines and other pharmaceuticals started prompting "polio" cases to skyrocket, particularly after introduction of the diphtheria and pertussis vaccines in the 1940s.¹⁸

Before the vaccine's introduction, the polio death rate in the United States had declined on its own by 47 percent. Most doctors of the time were unaware that DDT poisoning mimics the paralytic symptoms of polio.

By the early 1950s, articles began appearing in journals such as The Lancet19 and The British Medical Journal²⁰ that (however cautiously) admitted the role of injections. For example, a 1950 investigation to determine whether "cases of paralysis diagnosed as and indistinguishable from poliomyelitis were occurring in association with inoculation procedures" concluded that "there may have been present in the poliomyelitis group cases which would not have been clinically diagnosed as poliomyelitis at all if their inoculation had not brought them into the paralytic group"20 [emphasis added]. More recent studies have reached much the same conclusion. A 1992 study in The Journal of Infectious Diseases (published by CDC authors, no less) showed that children who received DTP (diphtheria-tetanus-pertussis) injections were significantly more likely than matched control children to suffer paralytic poliomyelitis within the next thirty days.²¹

In 1995, CDC researchers published another study focusing on "vaccine-associated paralytic poliomyelitis" in The New England Journal of Medicine.22 The Romania-based study showed that children who received a single injection within a month of receiving the polio vaccine were eight times more likely to contract polio than children who had received no further injections. The risk jumped twenty-seven-fold when children received up to nine injections within one month of polio vaccination, and, with ten or more injections, the likelihood of developing polio was one hundred and eighty-two times greater than expected. In the Romanian setting, 95 percent of the post-polio-vaccine injections were of antibiotics, while 4 percent of the injections were DTP vaccine.22

INSECTICIDE-INDUCED PARALYSIS

Diagnoses of what was thought to be "polio" also followed the 1939 discovery and introduction of the insecticide dichloro-diphenyl-trichloroethane (DDT), which earned Swiss scientist Dr. Paul Muller the Nobel Prize in 1948. Because DDT was presented as a solution to rid the public of insects falsely suspected of carrying a germ that spread polio, few initially realized that it actually was poisoning both children and adults. For years, Americans hummed along to the catchy advertising jingle "DDT is good for me-e-e!" while children played behind trucks spraying plumes of DDT, not knowing the harm it caused. DDT was sprayed on beaches and playgrounds and was used in water to rinse out clothes, bedding and mattresses. Fearful parents went so far as to sprinkle it on sandwiches.⁷

Most doctors of the time were unaware that DDT poisoning mimics the paralytic symptoms of polio. In 1953, however, a Westport, Connecticut physician, Morton S. Biskind, "had the composure to argue what he thought was the most obvious explanation for the polio epidemic: central nervous system diseases... such as polio are actually the physiological and symptomatic manifestations of the ongoing government- and industry-sponsored inundation of the world's populace with central nervous system poisons."²³

Arsenicals—compounds containing arsenic—are some of the oldest known causes of poliomyelitis.⁷ Arsenic was considered to be "safe and effective" in the era prior to polio vaccine use, so much so that doctors prescribed arsenic in cases of lung problems such as asthma.

VIRAL AND OTHER CONTAMINANTS

Miller describes how, in 1959, Bernice Eddy—a government scientist working in biologics at the National Institutes of Health (NIH)—discovered that polio vaccines being administered throughout the world contained an infectious agent capable of causing cancer.¹ When Eddy attempted to report her findings and halt production of the contaminated polio vaccines, her government superiors barred her from publicly revealing the problem. Instead, they took away her lab and equipment, and she was demoted.

It was not until the following year, 1960, that two Merck scientists—Dr. Maurice Hilleman and Dr. Benjamin Sweet—published findings concluding that all three types of Sabin's live oral polio vaccine were contaminated with a "hitherto undetectable" monkey virus that they named simian virus 40 (SV40).²⁴ The contamination was the direct result of using rhesus monkey kidney cells to make the vaccines.²⁵ Further research proved that SV40 was also present in Salk's injectable IPV vaccine when the microbes survived the formaldehyde "killing" process.

In 1996, Michele Carbone, a molecular pathologist at Loyola University Medical Center, was able to detect SV40 in 38 percent of patients with bone cancer and in 58 percent of those with mesothelioma, a deadly type of lung cancer.¹ By April 2001, sixty-two papers from thirty laboratories around the world had reported SV40 in human tissues and tumors, including pituitary and thyroid cancers.¹ Dr. Hilleman later admitted—on tape—that Merck knew that the vaccines were contaminated but continued to dispense them to the public anyway.²⁶

The polio vaccines used today supposedly do not contain SV40, yet one must consider the fact that it took the CDC fifty years to be forthright and admit that their recommended polio vaccines had been tainted.²⁷ Until recently, the agency's admission that as many as thirty million Americans could be at risk for developing cancer due to SV40-contaminated polio vaccines could be found on the CDC website; the CDC later removed this information, but it can still be found in archived format.²⁸

After the 1960 disclosure that the polio vaccines were contaminated with SV40, it took another three years for the NIH Division of Biologics Standards to recall the vaccines. During this time, over one million more Americans were vaccinated with the potentially contaminated, cancer-causing polio vaccines. When the government put new regulations in place in 1963, which were meant to protect the public from SV40, regulators required only that manufacturers wait fourteen days to determine whether SV40 was growing before proceeding to make the vaccine. It was later discovered, however, that a slower-growing form of the simian virus, which took nineteen days to appear, could well have been in the approved vaccines that went out the door to the public. Due to these inadequate testing guidelines, millions more people may have received contaminated vaccines all the way through the 1990s. Some estimate that the number of Americans at risk may be as high as one hundred million,²⁷ and perhaps another one hundred million people elsewhere in the world may also have been put at risk. Could this be one of the reasons that one in three baby boomers experience cancer, up from one in eight thousand only a few decades ago?²⁷

Given that monkey kidneys are still used in the manufacturing of today's polio vaccines, what about current safety? Do polio vaccines still have the potential to cause cancer or other harmful effects? Miller quotes Harvard Medical School professor Ronald Desrosier, who bluntly stated to CNN in 1996 that "The danger in using monkey tissue to produce human vaccines is that some viruses produced by monkeys may be transferred to humans in the vaccine, with very bad health consequences."²⁹ Desrosier warned that testing can only be done for *known* viruses and that our knowledge is limited to about 2 percent of existing monkey viruses.²⁹

According to Miller, SV40 was actually "just one of *numerous* simian viruses known to have contaminated polio vaccines" [emphasis in original].¹ His research has shone a light not only on SV40 but also on the AIDS epidemic and its possible origination. Miller has written that by the mid-1980s, with the advent of more sophisticated testing procedures:

Researchers discovered that about 50 percent of all African green monkeys the primate of choice for making polio vaccines—were infected with simian immunodeficiency virus (SIV), a virus closely related to human immunodeficiency virus (HIV), the infectious agent thought to precede AIDS. This caused some researchers to wonder whether HIVs may simply be SIVs 'residing in and adapting to a human host.' It caused others to suspect that SIV may have mutated into HIV once it was introduced into the human population by way of contaminated polio vaccines.¹

In short, potentially millions of people were infected with monkey viruses capable of causing AIDs, and this cross-species transfer most likely occurred by way of SIV-contaminated polio vaccines.¹

Also troubling to Miller is the fact that polio vaccines are sometimes grown in calf serum. Bovine spongiform encephalopathy (BSE)— It took the CDC fifty years to be forthright and admit that admit that their recommended polio vaccines had been tainted. "mad cow disease"—is a transmissible, degenerative and fatal disease affecting the central nervous system of adult cattle. Miller states, "There is very strong evidence that mad cow disease and the newly discovered variant of Creutzfeldt-Jakob disease are caused by the same infectious agent." Miller references 1997 and 1999 studies that "appear to confirm that BSE from cattle causes vCreutzfeldt-Jakob disease in humans. Researchers think that mad cow disease can be passed from cows to humans if they ingest BSE-infected beef, *or if they receive vaccines contaminated with BSE*" [emphasis in original].¹

ONGOING RISKS

Considering all of the well-documented problems associated with polio vaccines past and present, one might rightfully question the validity of continuing one of the most expensive public health campaigns in history. Children in the U.S. who are vaccinated according to the CDC's recommended schedule receive four doses of polio vaccine in their first five to six years: at two and four months, six through eighteen months and four through six years of age. In India, which requires administration of two annual "pulse polio" doses of OPV to children ages zero to five in addition to the other doses on the childhood vaccine schedule, young children commonly receive fifteen doses of polio vaccine.³⁰ Dr. Humphries quotes a *Times of India* article in which "one family claimed that their five year old child had received pulse polio vaccination 32 times."³¹

The million-dollar question is, should we continue administering polio vaccines to the world's population? According to the World Health Organization (WHO), the answer is yes. Stating that polio still exists in Afghanistan, Pakistan and Nigeria, the WHO claims that polio eradication initiatives must continue worldwide not only to eliminate the disease but prevent a comeback. The global health agency states, "As long as a single child remains infected with poliovirus, children in all countries are at risk of contracting the disease."³²

What the WHO does not make public is the fact that polio vaccines contain many dangerous ingredients. In addition to the already mentioned monkey kidney cells and baby cow blood serum, polio vaccines contain human albumin (blood proteins), glutamate (a component of MSG), formaldehyde, 2-phenoxyethanol (a preservative and germicide) and various antibiotics.³³ Nor does the WHO mention the adverse reactions to polio vaccines described in manufacturer package inserts and published literature, which include (but are not limited to) injection site reactions, blood and lymphatic system disorders, immune system dis-

orders, musculoskeletal and connective tissue disorders, nervous system disorders, skin and subcutaneous tissue disorders and death.^{34,35}

The U.S. MedAlerts search engine (as of August 31, 2018) indicates that, for the oral polio vaccine, there have been almost twentyfive thousand adverse events reported following OPV vaccination, including over a thousand deaths (see Table 1).³⁶ As of the same date, nearly forty-one thousand adverse events associated with the inactivated polio vaccine have been reported, including over eight hundred deaths.³⁷ Approximately 90 percent of the deaths caused by both types of polio vaccine occurred in children age six and under. As if these numbers were not troubling enough on their own, the U.S. government estimates that less than 1 percent of all vaccine reactions are ever reported.³⁸

SMOKE AND MIRRORS

Despite what the WHO says (and does not say), honest appraisals of public health history have concluded that what prevents disease most efficiently is proper sanitation and nutrientdense traditional diets-not mass vaccination campaigns. For example, Miller describes the work of Dr. Benjamin Sandler, a nutrition expert at a North Carolina Veterans' Hospital, who "documented a relationship between polio and excessive use of sugars and starches" at the height of the U.S. polio epidemic in 1948.¹ Sandler's research showed that these foods dehydrated the cells and pulled calcium from the body and-connecting the dots-he also showed that serious calcium deficiencies often preceded polio.

In the summer of 1949, Dr. Sandler put his theory to the test by advising North Carolina residents to follow his "anti-polio diet;" when the state's residents took his advice to heart and

TABLE 1. Adverse events reported in the United States following oral and inactivated polio vaccination		
	ORAL POLIO VACCINE (OPV)	INACTIVATED POLIO VACCINE (IPV)
TOTAL ADVERSE EVENTS	24,758	40,864
Deaths	1,031	813

Source: U.S. MedAlerts search engine (from 1990 - August 31, 2018)

cut sugar consumption by 90 percent, reported polio cases dropped by a comparable percentage, falling to two hundred and twenty-nine cases in 1949 as compared to almost twenty-five hundred the previous year.¹ Another doctor practicing in the 1940s and 1950s, Dr. Fred Klenner, "cured every one of the sixty polio patients he treated, some of them paralyzed, using massive injections of vitamin C."³⁹

In March 2014, the WHO declared India to be polio-free due to vaccination. Once again, however, the global health agency failed to tell the public the whole truth, omitting the fact that they established the same diagnostic criteria in India and other "polio-free" nations as the U.S. used starting in 1955 to create the impression of vaccine success. As Dr. Humphries has famously said, "It is a game of smoke and mirrors."

NEW (OR OLD) FORMS OF PARALYSIS

The WHO has also made little mention of the skyrocketing incidence in countries like India of a condition called acute flaccid paralysis (AFP). In India, the timing and incidence of "non-polio" AFP have corresponded very closely to the country's largely experimental policy of administering "pulse" doses of OPV to children ages zero to five.

Indian researchers described this strong correlation in a 2018 publication in the *International Journal of Environmental Research and Public Health* and calculated that, countrywide from 2000-2017, there were "an additional 491,000 paralyzed children" in excess of "the expected numbers."⁴⁰ Dr. Humphries suggests that—far from being able to credit vaccination campaigns with eliminating childhood paralysis—"there is strong evidence pointing to the likelihood that experimental polio vaccination is related to the sharp rise in AFP."⁷

The problem of sudden inexplicable paralysis also remains salient in the U.S., where a condition called acute flaccid myelitis (AFM) caused nearly two hundred cases of paralysis in 2018.⁴¹ This "polio-like" illness, a serious condition of the spinal cord, includes symptoms such as dizziness, an inability to walk properly, difficulty swallowing and arm mobility issues.⁴² Other symptoms include fever, respiratory issues such as coughing, runny nose, congestion and gastrointestinal problems, including vomiting and diarrhea.⁴³

Although the CDC began recording cases of AFM in 2014, the cause of the polio-like disorder is still unknown. The various explanations that have been put forth include environmental toxins or infection with non-polio enteroviruses.⁴⁴ And, while no one knows for sure, some speculate that polio vaccines or other vaccines are causing AFM as well as non-polio AFP,⁴⁵ with the injected aluminum adjuvants in vaccines possibly playing a role as well.⁴⁴

Nancy Messonnier, MD, director of the CDC's National Center for Immunization and Respiratory Diseases, has stated that AFM "seems to be more of an autoimmune syndrome, as opposed to a direct result of a virus."⁴⁶ Autoimmune diseases such as Guillain-Barré syndrome are known adverse reactions to vaccines, as evidenced by contraindication warnings on many vaccine package inserts, including polio vaccines. As the National Vaccine Information Center (NVIC) concludes:

Based on Messonnier's view that AFM might be an autoimmune disorder similar to Guillain-Barré Syndrome, and based on the fact that Guillain-Barré Syndrome can reportedly be triggered by a number of vaccines, it would be reasonable to at least consider the possibility of an association between AFM and vaccination. This is particularly relevant given that 99 percent of confirmed AFM cases were diagnosed in individuals who had shown clinical symptoms that could have been caused by vaccination.⁴³

Miller points to another relatively recent concern having to do with the new and more deadly strains of poliovirus that have emerged as a result of overvaccination.¹ Researchers first documented that a "vaccine-derived" poliovirus had caused outbreaks of polio in Egypt in the early 1980s.⁴⁷ In 2000, the CDC identified vaccine-derived polio strains in Haiti and the Dominican Republic.⁴⁷ Also in 2000, researchers found a new infectious and virulent poliovirus in Japan's rivers and sewage; as described by Miller, genetic sequencing confirmed that What prevents disease most efficiently is proper sanitation and nutrientdense traditional diets—not mass vaccination campaigns.

New and more deadly strains of poliovirus have emerged as a result of overvaccination.

the virus had mutated from the strain in the polio vaccine.¹ In 2010, scientists confirmed that a mutant poliovirus caused an outbreak in the Republic of Congo, which resulted in four hundred and forty-five confirmed cases of polio, nearly half (47 percent) of which were fatal.48

CONSIDERING THE EVIDENCE

To come to terms with the truth about vaccination, we must first be willing to let go of our indoctrinated beliefs. We must have an open mind, and we must objectively examine the facts. I invite you to "think twice" before accepting the dogma that portrays polio vaccines as nothing short of a medical miracle. There is simply too much scientific evidence proving the contrary about polio vaccines-and every other vaccine. Every vaccine dose contains multiple toxic ingredients, and all vaccines are capable of causing serious adverse reactions, including death. Furthermore, it is not possible to achieve permanent immunity to any infectious disease through vaccination.

I also invite you to take action against states that mandate vaccines. To learn more about your state's vaccine laws, visit the NVIC's Advocacy Portal at nvicadvocacy.org. Only by getting involved will we become free to make the choices that are best for our loved ones and ourselves. After all, shouldn't we be permitted

to choose how we maintain strong and wellfunctioning immune systems as our first line of defense?

Kendall Nelson is a documentary filmmaker actively engaged in directing, producing and distributing media that matters. With over twenty years of television and film experience, Nelson's lifelong commitment is to bring about awareness through her work. In addition, she is an advocate for the causes she cares most about, including health freedom, simple living and real food. She is also a proud board member of the International Women's Forum.

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VACCINE LEGISLATIVE UPDATE BY KENDALL NELSON

Thank you for standing with us in the fight to protect the basic human right to exercise full, informed consent to vaccination. With your help and with the tireless work of important partner organizations like the National Vaccine Information Center (NVIC), we have defeated dozens of bad vaccine bills during the 2019 legislative session, while also lending support to several good vaccine bills. Not all the news is good, though.

Because vaccination is mostly addressed by state law, each bill must be supported or fought against in individual states. To aid in this, the Weston A. Price Foundation regularly sends action alerts encouraging folks to get involved with state vaccine laws and policies. It is your advocacy that can educate legislators and protect informed consent rights.

That work is getting more difficult. Last year, thirty-six states considered one hundred forty-three vaccine-related bills. Forty-seven bills were actually worthy of supporting, promoting greater informed consent and choice in vaccination. Out of the eighty-two bad vaccine bills proposed, only seventeen bills passed. And only four of the bills that passed were significant problems: New York A. 9507, which authorizes pharmacists to administer flu vaccines to children two years and older and to track both vaccinations and refusals; Louisiana H.B. 176 and Maine L.D. 1664, which mandate the meningitis vaccine; and Alabama H.B. 76, which requires religiously-affiliated private daycares and preschools to give the Department of Human Services vaccine records on request.

Most importantly, in 2018 no state lost or restricted existing vaccine exemptions for school, daycare or other statewide requirements.

The year 2019, however, has proven more challenging. As in 2018, the majority of the bills introduced have sought to eliminate vaccine exemptions, while adding more mandated vaccines—including bills that allow minors to receive vaccines for sexually transmitted diseases without parental consent. And the numbers and scope are increasing. So far this year, we have analyzed and tracked one hundred eighty-seven vaccine-related bills in thirty-seven states, a 30 percent increase.

The leading excuse for pushing vaccine mandates was a measles outbreak, which sickened over one thousand children between January 1 and June 13, with no reported deaths. Consider that there have been more than eightynine thousand adverse reactions and four hundred forty-five deaths reported to the Vaccine Adverse Events Reporting System [VAERS] related to the measles, mumps, rubella [MMR] vaccine—and it is estimated by the government that only 1 percent of all reactions are ever reported.

But the outbreak helped the vaccine industry lobbyists find politicians willing to push an agenda that benefits pharmaceutical manufacturers (in some cases, helped along by campaign contributions). Some politicians went so far as to use their political power to push for censorship in the media; for example, Congressman Adam Schiff (D-CA) sent a letter to the CEOs of Google, Facebook and Amazon asking them to censor information that discourages parents from vaccinating their children.

The decision whether or not to undergo a medical procedure is a fundamental personal freedom, and your ability



Chapter leader Diane Smith (right) at the Minnesota Capitol getting signatures from senators.

ACTIVISM IN MINNESOTA

Diane Smith (right) is part of a group that is fighting at the state Capitol to overturn part of the 1986 National Childhood Vaccine Injury Act, which exempted vaccine companies from liability for injuries caused by childhood vaccines. Since then, vaccines have been responsible for a silent holocaust of horrific damage and even death to Americans. The U.S. Court of Claims has awarded over four billion dollars to vaccine victims for catastrophic injuries through the National Vaccine Injury Compensation Program created by the act-this sum represents only a third of petitioners, while two out of three have been denied compensation or are still waiting. Initially, the act preserved vaccine-injured persons' right to bring a lawsuit in the court system if federal compensation was denied or was not sufficient or when there was evidence that a drug company could have made a vaccine safe. The Supreme Court removed this provision in 2011 with its Bruesewitz v. Wyeth ruling, which eliminated the ability to sue vaccine manufacturers based on design defects. The Minnesota group's goal is to bring back design defect liability.

to say no—for yourself or your children—should not be decided by the government. Yet this year multiple politicians have sought to penalize parents who say no to vaccines for any reason.

The high-profile attacks began when Ed Day, the county executive of Rockland County, New York, declared a state of emergency in March. He issued an order that minors under the age of eighteen who were not vaccinated with MMR vaccines were not allowed in public spaces for thirty days. That not only meant that the children could not go to school, but that they could not go with their parents to a grocery store, a park or almost anywhere else. Then, in April, New York City Mayor Bill de Blasio ordered that anyone who resided or worked within certain zip codes of Brooklyn who had not received the MMR vaccine (or who could not demonstrate serological immunity) must receive the vaccine within forty-eight hours or face a fine of up to one thousand dollars

These two emergency orders were followed by Assembly Bill 2371, which repealed the right to religious exemption from vaccination in New York. The New York legislature rapidly pushed the bill through and Governor Andrew Cuomo signed it on June 13, calling the situation "a public health emergency." As a result, about twenty-four thousand children in New York who currently attend school with a religious exemption to vaccination will have to get *all* state-mandated vaccines according to the schedule published by the federal Advisory Committee on Immunization Practices or be homeschooled next year. New York has now joined California, Maine, West Virginia and Mississippi in forcing parents to choose between violating their religious beliefs and educating their children.

On the other coast, the state of Washington passed House Bill 1638, which eliminated the personal belief exemption to the MMR vaccine.

Nevertheless, we have seen many victories this year. The activism efforts of thousands of citizens defeated:

AL HB 592: Would have eliminated the religious exemption to vaccination.

AZ HB 2162: Would have eliminated the personal belief exemption to vaccination, leaving only medical exemptions.

CT HB 7005: Would have allowed school nurses to refuse to acknowledge a vaccine exemption.

CT HB 7199: Would have mandateed HPV and menincoccal vaccines for 9th and 12th grade students.

CT SB 858: Would have allowed for administration of HPV and HepB vaccines to minors without parental consent.

FL HB 245/SB 356: Would have mandated HPV vaccine.

IL SB 1659: Would have mandated HPV vaccine for 6th grade students.

MN SF 1520: Would have eliminated conscientious belief exemption to vaccination.

MO HB 1075: Would have allowed minors to consent to vaccinations.

MO HB 1225 Would have eliminated the religious belief exemption to vaccination.

HOPEFUL FOR VICTORY IN OREGON

A Portland meeting of Oregon's Ways and Means Committee elicited massive crowds in late March, with a packed auditorium and two overflow rooms filled to capacity. Many were mothers with children from various public schools and members of the local Russian Mennonite community attending to provide public testimony about the personal and financial impact of House Bill 3063, a bill that would eliminate all non-medical vaccine exemptions in Oregon. The bill would prohibit approximately thirty-one thousand Oregon children who currently have nonmedical vaccine exemptions from attending public, private or charter schools unless they get every single vaccine on the state's childhood vaccine schedule. It is nearly impossible to get a medical exemption in Oregon. Thanks to a walk-out by Republican senators, the bill was removed from the voting docket.



Overflow crowd opposes vaccine mandates in Oregon.

Legislative Updates FEDERAL POLICY UPDATE By Judith McGeary, Esq.

Our summer policy update covers developments on animal ID, lawsuits against Monsanto, GMO labeling and highlights from state legislatures around the country.

ANIMAL ID FIGHT TAKES A NEW TWIST

Back in 2006, the USDA proposed the National Animal Identification System (NAIS), a plan developed by large agribusinesses to grease the wheels of international trade—and to make lots of money for tech-related businesses. NAIS would have required every person who owned any livestock or poultry animal, down to a pet pig or a backyard chicken, to register with the government, tag each animal (in most cases, with electronic ID) and report their movements to a database controlled by large agribusiness interests. This obscenely overreaching plan was withdrawn in 2010 in the face of widespread organized grassroots opposition.

USDA replaced it with the "Animal Disease Traceability Program," which only applied to cattle and poultry, and only when they cross state lines. The grassroots coalition that had killed NAIS ensured that the ADT provided for multiple options for official identification; while electronic IDs were recognized, so were non-electronic forms of ID.

The ADT program was put in place through a formal rulemaking process, in which USDA proposed the rule, accepted comments from the public and included a response to all of the comments when it published the final rule. Changes to such a rule are supposed to be made through that same process.

The first signs of trouble came in 2017, when USDA held public meetings that made it clear that the agency and its agribusiness allies still wanted to move ahead with an all-electronic approach to animal ID. Small producers who attended those meetings again raised the problems with electronic ID: the cost of the tags and, even more, the cost of all of the infrastructure necessary to support such an electronic tracking system. Just as with NAIS, when we asked the agency for data and hard facts as to why electronic ID would be needed, we were met with unsupported vague claims—and, ultimately, a focus on the export market for big agribusinesses.

Now, instead of going through the proper public process, USDA has announced that it will simply stop approving non-electronic forms of ID for cattle at the end of this year. As of January 2023, all adult cattle moving interstate will need to have an approved form of electronic ID. . .a significant change to the ADT rule, done without any of the normal rulemaking procedures.

Watch for future articles on how we will respond to this improper action by the agency.

LAWSUITS TAKING A BITE OUT OF MONSANTO-BAYER

In 2018, the Department of Justice approved the merger of agribusiness giants Bayer and Monsanto over the objections of numerous farming and consumer interest groups. But Bayer may be starting to regret the merger.

In May, a California jury awarded a couple two billion dollars in punitive damages, after concluding that sustained exposure to Monsanto's Roundup weed killer led to their cancer. The couple had used Roundup for thirty years for landscaping their home and other properties. Both have non-Hodgkin's lymphoma, which has been linked to glyphosate, the active ingredient in Roundup.

The internal documents disclosed during the trial revealed that Monsanto's focus has been on attacking anyone who raises questions about glyphosate's safety, rather than in determining the level of risk of its product. (This is not a surprise to anyone who has looked at the scientific studies and the PR surrounding them.)

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 farmandranch freedom.org or call (254) 697-2661.

This is the third jury in a row to award punitive damages against Monsanto/Bayer, and each case brings new developments.

In August 2018, the first jury to hear such claims in another case awarded almost three hundred million dollars, which was reduced to seventy-eight million dollars on appeal. The jury was allowed to hear information on Monsanto's alleged cover-up at the same time that it was considering whether or not Roundup had caused the plaintiff's cancer. That jury found Monsanto failed to warn the plaintiff of Roundup's health hazards and "acted with malice or oppression."

The second case then broke new ground, because the judge refused to allow the plaintiff's attorneys even to discuss Monsanto's alleged influence on research and regulations during the hearings—removing that potential source of bias. Yet the second jury still found that glyphosate had more likely than not caused the plaintiff's cancer. And once the second trial reached the stage of deciding on damages, the judge, who had previously favored Monsanto in his pre-trial orders, made this observation: "Although the evidence that Roundup causes cancer is quite equivocal, there is strong evidence from which a jury could conclude that Monsanto does not particularly care whether its product is in fact giving people cancer, focusing instead on manipulating public opinion and undermining anyone who raises genuine and legitimate concerns about the issue." The jury ultimately ordered Bayer to pay eighty-one million dollars in damages in that case.

Bayer's shareholders are facing an ugly future, with over eleven thousand more cases waiting to go to trial with claims related to Roundup.

CONSUMERS LOSE ON GMO LABELING

But while the GMO industry is suffering some serious blows in the courtroom, it still

STATE HIGHLIGHTS ON FOOD FREEDOM

North Dakota's Food Freedom Act, passed just two years ago, narrowly survived a legislative challenge this year. The 2017 Food Freedom Act allows the unregulated sale of all foods directly from producer to consumer except meat and raw dairy. The state health department pushed a bill, SB 2269, that would have banned low-acid canned foods and mandated that "potentially hazardous foods" be sold frozen. The sponsor of the bill attempted to portray it as simply providing consistency and conformity across the state, without acknowledging that it reversed significant portions of the 2017 law. Fortunately, SB 2269 ultimately died when the House voted against accepting the conference committee version (65 nays, 25 yeas).

At the same time, Utah's legislature expanded food freedom a bit this year with two bills. HB 256 exempts farmers with fewer than 3,000 laying hens from regulation when selling directly to consumers. These small producers can also sell eggs to restaurants without having to grade them, although the agriculture department can issue rules governing the temperature, cleaning and sanitization of such eggs. In addition, HB 412 allows the sale of meat from "nonamenable" species that are processed at a custom slaughterhouse, without an inspector present. "Nonamenable" species are those that are not included in the definition of amenable (i.e. cattle, sheep, goats, swine, or domesticated poultry), when domestically raised; it includes domesticated elk, bison, game birds and rabbits.

The Texas Legislature was very active on the issue of local food regulations this year, passing five bills that support local food producers. The most high-profile was an expansion of the existing cottage food law; the new law, SB 572, allows the sale of any nonpotentially hazardous food at any location in the state (so long as direct to consumer), and added pickled fruits and vegetables, acidified canned foods, frozen fruits and vegetables, and fermented vegetables to the allowed list. Another bill, HB 410, removed the current onerous requirements for an expensive facility for those farmers processing 1,000 poultry or 500 rabbits or fewer per year on their own farms. A third bill, SB 932, capped the fees that can be charged by local health departments for farmers and farmers market vendors; some local jurisdictions, particularly the larger cities, had been charging fees as high as \$300, \$600 or even \$2,000 per year per market for some farmers market vendors, but will now be limited to no more than \$100 per year per jurisdiction. Fourth, HB 1694 completely abolished the permit requirement for providing samples of food at farmers markets. Finally, HB 2107 requires local health departments to respond to questions by food producers as to what they have to do legally—and if the producer complies, an inspector cannot later come up with a different interpretation and fine the producer, as happens all too often.

And still ongoing, the Maine Legislature is considering a constitutional resolution on the right to food. LD 795 states that "All individuals have a natural, inherent and unalienable right to food, including the right to acquire, produce, process, prepare, preserve and consume the food of their own choosing by hunting, gathering, foraging, farming, fishing, gardening and saving and exchanging seeds or by barter, trade or purchase from sources of their own choosing, for their nourishment, sustenance, bodily health and well-being...; furthermore, all individuals have a fundamental right to be free from hunger, malnutrition, starvation and the endangerment of life from the scarcity of or lack of access to nourishing food." If approved by the Legislature, LD 795 will be voted on by the citizens of the state.

But while the GMO industry is suffering some serious blows in the courtroom, it still clearly has far too much influence over federal agencies such as USDA, as seen by the extremely pro-industry GMO labeling rule released in January.

clearly has far too much influence over federal agencies such as USDA, as seen by the extremely pro-industry GMO labeling rule released in January.

The rule does not require the use of the term "genetically engineered" or "GMO." Instead, the label uses the term "bioengineered," even though consumers are very unlikely to realize that this new term actually means GMO.

And what is going to be labeled? The rule allows companies to choose whether or not to label highly refined products such as corn syrup and vegetable oil. While it's better if people simply don't eat such foods, it still matters—for health, environmental and ethical reasons—whether or not they are genetically engineered.

The rule also exempts the new techniques for genetically engineering plants and animals. Gene-editing using CRISPR is one example, where scientists manipulate an organism's own DNA to silence certain genes or express otherwise silent genes. USDA agrees with the companies that such modifications "could" have been obtained through conventional breeding, and thus they won't be considered bioengineered. Similarly, products made through a technology called RNA interference (RNAi), a gene editing technique for blocking the expression of certain genes, are unlikely to be covered. This means that the GMO Arctic Apple, a non-browning apple, will not require a label. More and more genetically engineered crops will be created using these techniques without requiring a label.

The USDA's approach completely misses the point. Even if a particular change could have been brought about through traditional breeding, it wasn't. And we don't know whether the genetic engineering had additional, unintended effects. The fact that it was brought about through genetic engineering in a laboratory means that consumers have a right to know.

Finally, while the USDA backed away from the absurd smiley face labels it had proposed, the final image is still misleading. It depicts a green field and a sun—natural images to communicate the presence of decidedly unnatural ingredients. And, as the final insult, even this misleading, weak label isn't actually required, since companies can simply put a QR code on the package, requiring consumers to scan the code with a smartphone and then navigate a website to find the information.

The labels, weak as they are, must be in place by January 2022. In practical terms, consumers should continue with the advice we have been giving all along—buy from local producers you know. And when in grocery stores, look for certified organic and certified non-GMO labels.

STATE HIGHLIGHTS

ON AG-GAG AND RIGHT TO FARM

While the local food community continues to fight for food freedom and farmers' ability to make a fair living, the large agribusinesses use similar rhetoric about the "freedom to farm" and protecting farmers to push for laws that hide them from public scrutiny and accountability.

In Texas, the poultry industry pushed SB 1884, which would have made it a felony to have "unauthorized access" to an agricultural business's documents or to come onto an agricultural facility's property under false pretenses. This bill was aimed at the whistleblowers who have gotten access to factory farms, filmed animal abuses or obtained documents showing violations of environmental regulations, and then released that information to the public. The ag-gag provisions were not mentioned by the proponents of the bill-instead, they tried to focus attention on the far more justifiable provisions addressing penalties for people who gained access to a property and then hurt or released animals. Opposition from the Farm and Ranch Freedom Alliance led to amendments to the bill and ultimately its demise.

Iowa, however, continues to push forward with "ag-gag" laws. A 2012 statute made it a crime for journalists and advocacy groups to go undercover into meatpacking plants, livestock confinement operations and other agricultural businesses in order to investigate animal or worker conditions, environmental hazards and food safety issues. Earlier this year, a federal court ruled that the law violated people's right to free speech. Within weeks, the Iowa legislature passed another bill with much the same effect. The new law deems a person a trespasser if they use deception to gain access to a farm to cause physical or economic harm—such as causing loss of sales due to exposing illegal activity.

It's important to recognize that there are already laws that make trespass illegal, as well as criminalizing activity that leads to physical harm to animals, crop destruction or other legitimate property interests. Ag-gag laws are about increasing the penalties and scope of these laws to give special, unique protection to agribusinesses and help them to hide when they are acting unethically, illegally or even dangerously.

We see a similar misuse of power in the realm of "right to farm" laws. While it is an appealing sounding concept—particularly for our community, which has struggled with regulations that threaten to push people out of farming—the laws in place in most states primarily protect the large-scale industrial operations that truly are bad neighbors.

A recent case in Indiana illustrates the problem. In *Himsel v. Himsel*, the defendant farm had been farming on the land for several decades, primarily raising crops. In 2012, the farmer decided to convert to a hog operation housing eight thousand hogs in two large buildings, establishing a confined animal feeding operation (CAFO). The plaintiffs who lived nearby had no objection to the previous farming operations, but they filed suit against the confinement hog operation. In particular, the plaintiffs complained that the odor of the CAFO diminished their quality of life and property value, and altered their daily activities.

The trial court granted judgment in favor of the CAFO, and the appeals court upheld that verdict in May of this year. The court's decision was based on the fact that the Indiana Right to Farm Act protects agricultural operations that have been operating for at least one year unless there has been a "significant change" in the operation. By itself, that may be reasonable, but the statute expressly provides that the following situations are not "significant changes": converting from one type of ag operation to another, changing the size of the operation or adopting "new technology." Thus, changing from a crop farm or even a pasture-based farm to a CAFO is not a "significant change" under the Indiana law. No other private business is given this sort of protection when it harms its neighbors.

And good news for local meat producers and consumers: the PRIME Act is back.

To end on a positive note, just as this article was going to press, U.S. Representatives Thomas Massie (R-KY) and Chellie Pingree (D-ME), together with Senator Angus King (I-ME), re-introduced the PRIME Act to make it easier for small farms and ranches to serve consumers. The Processing Revival and Intrastate Meat Exemption (PRIME) Act, HR. 2859/ S.1620, would allow states to permit the intrastate distribution of custom-slaughtered meat to consumers and wholesalers. Current law exempts custom slaughter of animals from federal inspection regulations only if the meat is for personal use; to sell cuts of meat to consumers, even at local farmers markets, farmers and ranchers must send their animals to one of the often far-away slaughterhouses that meets USDA regulations.

H.R. 2859 and S. 1620 already have nineteen co-sponsors from fourteen states and both parties, so it's off to a good start. Stay tuned for action items on the PRIME Act in your email and future *Wise Traditions* articles.



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Wise Traditions

A Campaign for *Real Milk* FLAVORED MILKS: HOW LOW CAN YOU GO?

By Sally Fallon Morell

Flavored milks are highly sweetened beverages made with powdered skim milk—they are actually the dairy industry's way of getting rid of all the skim milk left over from the production of butter and cream, mostly for ice cream. Since Americans are huge ice cream eaters (and since Americans are eating more butter these days), there's an enormous amount of this waste product that the industry needs to get rid of.

With the advent of modern industrial agriculture, which separates all the farm animal species into confinement facilities, it's no longer possible for the farmer to give his leftover skim milk to his pigs after sending his cream to the dairy factory. So what better thing to do with this lowfat waste product than feed it to children!

Because of USDA dietary guidelines, school children are not allowed to have whole milk at lunchtime—the kind of milk they need to grow normally. Instead their choices are limited to lowfat and flavored milk beverages in chocolate and strawberry flavors. These beverages contain more sugar than sodas! School students choose chocolate milk over plain milk two to one, and there are reports of children in the breakfast programs putting chocolate milk on their cereal!

Thanks to the efforts of Jamie Oliver, host of Jamie Oliver's Food Revolution, plus input from thousands of concerned parents, many schools dropped the flavored milk offering. Because the kids hate the watery plain lowfat milk, they ended up not drinking milk, and the dairy industry was not pleased, especially as some policymakers began calling for the introduction of full-fat milk at school lunches.

What? Give valuable butterfat to growing children? That would be terrible for the bottom line. So the industry increased their lobbying efforts for flavored milks. I receive the American Dairy Association North East Dairy Promotion News, and this issue featured an article entitled "Checkoff Reinforces Importance of Offering Flavored Milk in Schools." According to the article, "In response to recent changes in nutritional guidelines allowing schools greater flexibility in meeting nutrition requirements, ADA North East distributed informational kits to 1,600 school districts about the importance of offering lowfat flavored milk to students." The promotional kits included a flyer with "five reasons flavored milk is nutritious and appealing to schools and students alike," and a mouse pad featuring chocolate, strawberry and white milk logos. The campaign seems to be working. "Many schools have already reintroduced flavored milk thanks to support from local dairy farmers and cooperatives."

A few years ago, when researching the subject of flavored milk for a presentation on school lunches, I was astounded to find three web pages dedicated to hawking flavored milk. Typical arguments go like this: "Flavored milk is a terrific way for kids, teens and adults to enjoy milk and get the same nine essential nutrients found in milk—nutrients that can help kids grow into strong and healthy adults.

"Milk, including flavored, is the numberone food source of three of the four nutrients the Dietary Guidelines for Americans say both adults and children need to consume more of vitamin D, calcium and potassium.

"Research shows that children who drink flavored milk drink more milk overall, have better quality diets, do not consume more added sugar or fat and are just as likely to be at a healthy weight compared to kids who do not consume flavored milk. In fact, flavored milk contributes only 4% of the added sugars to children's diets ages 2-18, while soft drinks and non-carbonated sweetened beverages contribute



A Campaign for Real Milk is a project of the Weston A. Price Foundation. To obtain 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.

about 46% of the added sugars."1

So why isn't flavored milk a good way to get the "three out of four" important nutrients in milk? Since the milk has been heated—once for pasteurization and again for the powdering process—any enzymes that help the body absorb calcium and phosphorus will be destroyed. You need vitamin D to utilize calcium and phosphorus but it is unlikely the vitamin D will be absorbed since it is a fat-soluble vitamin, and there is little or no fat in the flavored milks.

These flavored milks typically also contain cornstarch, carrageenan (hard to digest), natural and artificial flavors and vitamin A palmitate. Strawberry-flavored milk labels list high-fructose corn syrup along with sugar, plus natural flavoring and red dye—but no strawberries!

Back to the newsletter from the American Dairy Association North East: on the back page is a photo of Abbey Copenhaver, New York dairy farmer and registered dietitian. She is participating in the Ironman race sponsored by Team Chocolate Milk, and is shown drinking a bottle of lowfat chocolate milk. She did the marathon, which consists of a 2.4-mile swim, 112-mile bike ride and 26.2-mile run, in fourteen hours four minutes. (Winners typically complete the course in just over nine hours.)

Abbey looks nice and slim, as she should, engaging in so much exercise. But on the opposite page we have two group photos of the State Dairy Princesses—the outgoing winners and the incoming winners. Recently at a dairy conference I attended, a dairy farmer who was promoting whole milk for school children pointed out that all six of these teenage gals are overweight, some quite a bit so.

The dirty little secret of these flavored milks is that they provide the perfect combination of ingredients for weight gain—in spite of industry claims to the contrary. First is the lowfat powdered milk. If you feed lowfat milk to pigs—who have a metabolism similar to that of humans—they will rapidly gain weight, but they will stay lean if fed whole milk. It seems counterintuitive to many, but readers of *Wise Traditions* know that we need those animal fats to stay slim. They provide energy, support thyroid function, help with detoxification (so those toxins won't need body fat to lodge in) and contribute to satiety.

Then we have the sugar, or combination of sugar and highfructose corn syrup. The added sweeteners in one serving of flavored milk add up to twenty-five to thirty grams—thirty grams is two tablespoons. If this added sugar contributes only 4 percent of



sugar intake in children ages two to eighteen, then these kids are eating a heck of a lot of sugar. . .maybe because flavored milk leaves them so unsatisfied.

A third ingredient in flavored milk that can cause weight gain is free glutamic acid (basically MSG), formed during the milk powdering process, and also lurking in the artificial and "natural" flavors. Researchers use MSG to induce obesity in test animals. And a study at the University of North Carolina found that "people who eat more MSG are more likely to be overweight or

obese," no matter how many calories they consume overall.²

The fact that spokespersons can promote these food-like products is an indictment of the whole dairy industry. They are absolutely not appropriate for anyone, especially growing children. What kind of society believes that it is a good idea to feed such garbage to children, and what will become of that society in future generations?

This article is taken from a blog post at nourishingtraditions.com.

- 1. https://www.drink-milk.com/common-questions/flavored-milk/.
- 2. https://www.reuters.com/article/us-msg-linked-weight-gain/ msg-linked-to-weight-gain-idUSTRE74Q5SJ20110527.

RAW MILK UPDATES by Pete Kennedy, Esq.

TENNESSEE – RAW BUTTER SALES NOW LEGAL

On April 30, Governor Bill Lee signed into law Senate Bill 358 (SB 358); the legislation legalizes the sale of raw butter by licensed producers in Tennessee. SB 358, sponsored by Senator Frank Niceley, a long-time champion of the small farmer and local food, goes into effect immediately. SB 358, as amended in the House and passed, provides that "the department [of agriculture] shall not regulate the production of unpasteurized butter provided that it is produced:

(A) In a facility separate from production of pasteurized products;

(B) Solely for intrastate commerce; and

(C) By a person licensed by the department as a dairy plant."¹

On any raw butter sold, the bill also requires a warning label stating, among other things, that the product has not been inspected and that butter "may contain disease-causing micro-organisms."¹ According to the Centers for Disease Control (CDC), between 1998 and 2016, there was not a single foodborne illness outbreak attributed to the consumption of commercially produced raw butter;² during that time, California-based Organic Pastures Dairy Company (OPDC) sold over two million pounds of the product without incident.³ The labeling requirement was a concession needed to pass the bill.

It's not clear why the Tennessee Department of Agriculture (TDA) would not agree to regulate the production of butter under current regulations from a licensed dairy plant but the answer could possibly be because of some agreement the department has with the federal government. SB 358 allows the retail sale of raw butter; Tennessee joins Arizona, California, Idaho and Maine as states allowing the sale of the product in retail stores. There are around a dozen states that allow the sale or distribution of raw butter for human consumption.

Niceley introduced a bill in 2018 that would have legalized raw butter sales, but that legislation didn't make it out of House committee after passing the Senate. With the accelerating decline of the state dairy industry over the past year, SB 358 did not have any significant opposition. One point Niceley made during consideration of the bill was about the increasing competition from lab-grown dairy products to the conventional industry, saying that laboratories could produce pasteurized dairy products at a much lower price than the dairy industry could and that the industry needed to separate itself from that competition with the production and sale of raw dairy products.

It is uncertain at this time how many of the state's licensed dairy plants are interested in selling raw butter, but the potential is there. None of Tennessee's neighbors allow raw butter sales; there could be out-of-state customers buying butter in Tennessee. Cheesemakers from other states could be moving in with an additional high-demand product to sell. If demand does take off, some of the state's remaining dairies could obtain higher prices for their milk by selling some of their production to dairy plants instead of cooperatives where most are losing money with each load they ship.

The Farm-to-Consumer Legal Defense Fund (FTCLDF) has a citizen petition⁴ before the U.S. Food and Drug Administration (FDA) to lift the interstate ban on sales and distribution of raw milk and other raw dairy products (except aged cheese). If the petition is successful, it is likely raw butter sales would be legal in all states within a few years. Until that time, there should still be a steady increase in states allowing raw butter sales or distribution.

Brentwood Chapter Leader Shawn Dady lobbied for the bill on behalf of the Weston A. Price Foundation (WAPF). Congratulations to her, Senator Niceley and the other Tennesseans supporting SB 358 for legal raw butter sales,⁵ in time for the spring flush.

- 1. House Amendment Number 1 to HB0532 (HA0116), Tenn. House § 1 (2019). Last accessed 5/7/2019 at http://www.capitol.tn.gov/Bills/111/Amend/HA0116.pdf.
- Mark McAfee and Farm-to-Consumer Legal Defense Fund, "Citizen Petition Seeking Legalization of Interstate Transport of Unpasteurized Butter", petition, June 22, 2016; p. 10.
- 3. Ibid. p. 11.
- 4. For more details about the citizen petition, read "FTCLDF Hires Jim Turner to Litigate Raw Butter Petition" at https://www.realmilk. com/turner-litigate-raw-butter-petition/.
- 5. Thanks to an opinion from the Attorney General, the state has allowed the distribution of raw butter and other dairy products since 2012 through herdshare agreements.

NEW JERSEY RAW PET DAIRY LEGAL

On paper the sale of raw dairy products for pet consumption is legal in all fifty states; the trouble has been that in many states regulators have improperly prohibited the sale of raw pet dairy by producers and distributors. Recently in New Jersey, pet owners and other supporters of raw dairy were successful in defeating an attempt by the New Jersey Department of Health (NJDH) to stop the sale of any raw pet dairy products in the state.

On January 14, NJDH sent cease-and-desist letters to distributors and retail stores selling raw dairy products for pet consumption, threatening enforcement if they continued to sell raw pet dairy. Health officials followed up on the letter by raiding multiple pet food stores and confiscating raw dairy. There were no allegations that raw pet dairy was causing any illness.

NJDH exceeded its lawful powers in two respects. First, it is the New Jersey Department of Agriculture (NJDA) that has jurisdiction over the production and sale of all feed for animal consumption. Second, New Jersey regulations allow the sale of raw pet dairy in the state.

Manufacturers of raw pet food dairy sell their products in dozens of New Jersey pet stores. Reaction from pet owners and other supporters was strong against NJDH. Many contacted NJDH, NJDA and their legislators to complain about the state action. Representatives for raw pet dairy manufacturers and advocates made their case to the two agencies about how NJDH had exceeded its authority.

On April 20 Rhea Landig, the executive director of Species Alliance, held Pet Food Justice in Branchburg, an event featuring speakers on the health benefits for pets and humans of raw dairy as well as the regulatory climate and laws governing raw pet dairy production and sales. Speakers included Weston A. Price Foundation president Sally Fallon Morell, Rutgers professor Joe Heckman, Cathy Alinovi of the Next Generation Pet Food Manufacturers Association, Susan Thixton of the consumer advocate group Association for Truth in Pet Food and Billy Hockman of Answers Pet Food, one of the manufacturers hurt by the NJDH action.

The event showed the potential for collaboration between those advocating legal raw pet dairy sales and those supporting legal raw milk sales for human consumption. If raw milk sales for human consumption were legal in New Jersey, NJDH never would have taken any action against distributors and retail stores selling raw pet dairy.

On May 10 NJDH issued a public statement: "Distributors and retailers selling raw milk pet food will not be subject to enforcement action by the Department of Health." With state regulators acknowledging the legality of raw pet dairy sales, it would be good for New Jersey to get on with the business of legalizing raw milk sales for human consumption; the ban has lost New Jersey farmers millions of dollars in sales to Pennsylvania dairy producers. The time to act is now; currently, there are 40 Grade A dairies left in the state.

2019 STATE RAW MILK LEGISLATION SUMMARY

Nearly twenty states had bills legalizing or expanding the sale/distribution of raw milk and raw milk products before the legislatures during the 2019 session. Two states have passed legislation so far this year but, with many states in the first year of a two-year session, there are a number of bills that still have a chance of passing in 2020.

An untapped source of revenue for producers is the sale and distribution of raw dairy products other than milk and aged cheese. The sale of butter, cream, yogurt and kefir is illegal in a majority of states, but given the excellent track record for food safety of all these products, there is a good chance that more states will be passing bills in the near future to legalize the sale of these products. States with raw dairy bills in 2019 include:

ALASKA – HB 16

The distribution of raw milk through herdshare agreements is currently legal by regulation; House Bill 16 would make it legal by statute and would also allow herdshare dairies to distribute all other raw dairy products to their shareowners in Alaska. HB 16 has passed out of the House and was assigned to a Senate committee before the 2019 session adjourned; so, it will start the 2020 session in the Senate Resource Committee.

ARKANSAS - HB 1699

Current law allows raw milk producers to sell up to five hundred gallons of raw goat milk and/or raw cow milk on an average monthly basis. House Bill 1699 amends the law to also legalize the sale of raw sheep milk as part of the five-hundred-gallon limit. HB 1699 passed the legislature and became law on April 10.

MISSOURI - HB 1090

House Bill 1090 would allow licensed dairies meeting sanitary standards to sell raw milk and raw cream to grocery stores, restaurants and similar establishments. Under current law, licensed raw milk dairies can sell raw milk and cream on the farm and through delivery. HB 1090 has been referred to the House Agriculture Policy Committee. The Missouri legislature just finished the first year of a two-year session.

MONTANA - HB 490 plus

House Bill 490 would have legalized raw milk sales and created a two-tier system in which those producing ten gallons of raw milk per day would operate under a small-scale raw milk license while dairies producing more than ten gallons per day would need to obtain a commercial raw milk license. In effect, HB 490 would have acted as a de facto ban on raw milk. Those producing more than ten gallons per day would have been required to have the dairy's physical facility be up to Grade A standards, a cost of tens of thousands of dollars. Even small-scale raw milk dairies could have been subject to onerous physical facility requirements. The bill also could have subjected dairies to expensive testing requirements and have made them pay for costs of a foodborne illness outbreak investigation even if they weren't held responsible for the outbreak. HB 490 died with the House floor vote. Two other bills died without a hearing that, respectively, would have legalized herdshare agreements (House Bill 521) and would have legalized sales of raw milk and raw milk products by producers with herds of less than ten cows, twenty goats or twenty sheep (House Bill 516).

NEVADA – SB 418

Under current law, producers can only sell raw milk and raw milk products where a county milk commission has specifically certified those foods; Nye County has the only county milk commission in the state. Senate Bill 418 would have allowed producers to sell statewide the raw milk and raw milk certified by a county milk commission. SB 418 also would have exempted micro-dairies (with up to five cows, ten goats or ten sheep) from certification standards and allowed them to sell raw dairy without regulation directly to the consumer at the farm where the milk is produced. SB 418 passed the Senate but died without a hearing in the Assembly Committee on Health and Human Services.

NORTH CAROLINA - HB 103, HB 385 and SB 509

Sponsors introduced three raw milk bills in the 2019 session. House Bill 103 allows the licensed sale of raw milk in retail stores by dairies with no more than ten lactating cows, ten lactating goats or ten lactating sheep. Companion bills, Senate Bill 509 and House Bill 385, would ban herdshare agreements; the state legalized the distribution of raw milk and raw milk products through herdshare agreements as part of the 2018 North Carolina Farm Bill. None of the three bills has received a hearing but the legislature's rule allows bills to be tacked on to unrelated legislation; this is what happened in 2004 when the legislature passed a herdshare ban at the end of the session. As long as the legislature is still in session, SB 509 and HB 385 remain dangerous.

NEW YORK - AB 5867

Assembly Bill 5867 would legalize herdshare agreements, referred to in the bill as "shared animal ownership agreements," without regulation. Currently, in New York, the licensed on-farm sale of raw milk is legal. AB 5867 has been referred to the Assembly Agriculture Committee.

TENNESSEE – SB 358

There were several raw dairy bills before the legislature. Senate Bill 358 which allows the sale of raw butter by producers with a dairy plant license became law on April 30; the bill requires dairy plant operators to keep the butter-making separate from the production of other dairy products. Producers must also put a warning label on the packages containing the raw butter. Senate Bill 15 would have banned herdshare agreements; the bill died because no companion House bill was introduced. The sponsor of SB 15 later tacked on an amendment to an unrelated bill. Senate Bill 1123, but that bill died in committee. Current law allows the unregulated distribution of raw milk and raw milk products through herdshare agreements.

UTAH – HB 182

The final version of House Bill 182 would have allowed licensed dairies to sell raw butter and raw cream; currently, the only raw dairy products licensed producers can sell are milk and aged cheese. HB 182 passed out of the House and the Senate committee, but time ran out on the 2019 session before a vote of the full Senate could take place.

NEW INFORMATION RESOURCE FOR WAPF MEMBERS

Consult with Pete Kennedy on state laws, regulations and policies including food freedom legislation and issues regarding consumer access to raw milk, cottage foods and on-farm meat and poultry processing. (Pete cannot give individual legal advice or recommend support for or opposition to pending legislation.) Contact Pete at pete@realmilk.com.

Healthy Baby Gallery



At his six-month checkup, this happy boy was in the 98th percentile for height and off-the-charts for weight due to his strong, dense bones. He is doing extremely well developmentally for just about every metric. He started on homemade formula in week two of life (modified powder formula for two weeks and then full WAPF milk-based formula since then). He has only caught one brief cold since starting in daycare at month three. Everyone is amazed with how alert and advanced he is for his age.

> Baby Celeste was born in early March, 2018. She had a beautiful natural water birth and weighed in at eight pounds, nine ounces. Some of her first solid foods were homemade chicken broth, egg yolks, liver and butter. Now that she is a bit older, she enjoys drinking raw milk and taking cod liver oil.





Kit Stone was delivered via midwife in the tub at a birth center, exactly what his elated parents had hoped for after their first child was born in a hospital. This time around mom had a full WAPF diet, including FCLO, and delivery came much more easily. He was guite heavy for his smaller size but extremely strong and alert, lifting his head to get a look around and turning over onto his belly his first night! Now at just three months he is adding a lot of weight to his stature and is close in size to many of the one-year-olds he encounters. He is a very happy baby, loves being held and holding a conversation with smiles, coos and laughs all day long. Grandma recently came to visit and remarked on his good temperament which we believe is linked to his mom's high animal fat intake.



Wise Traditions baby Frank Field Talbot was born at a birth center on February 7, 2019, weighing in at seven pounds. Alert and happy, Frank has a special guardian angel in his late grandmother, Kim Schuette.

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FREDERICK, MARYLAND CHAPTER

The chapter held a St. Patrick's day potluck with an Irish theme. Pictured are buttermilk-soaked rye and spelt soda bread with golden yellow butter, cheese and chicken liver and bacon paté.

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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.

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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 LISTSERVE

Thank you to Maureen Diaz, a chapter leader in Virginia, for administering the local chapter chat group. New chapter leaders can sign up at groups.yahoo.com/group/wapfchapterleaders/.

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area. Our farm is certified humane and

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video at https://HealthHeroFarm.com/video

Many Hands Organic Farm in Barre, MA.

All products certified organic and free

СО

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, Simla, CO. A family-owned ranch, practicing regenerative agriculture, bringing you nutrient-dense food. Our animals are **100% certified American Grassfed**. Our beef is 30-day dry-aged. We also offer pasture-raised lamb and broiler chickens. Bones, offal (liver, tongue, oxtail, kidney, cheek, heart) and other choice cuts available. Bulk and piece orders. Pickup locations along the Front Range and **NOW** shipping in CO. (719) 541-1002, rafterwranch.net

FL

Pineshine Farms – We raise grass-fed, grassfinished beef and pasture raised chicken and eggs! Our animals are free from vaccines, antibiotics and hormones. We offer **national shipping** and local pick-up. Please visit our website pineshinefarms.com or send a note to info@pineshinefarms.com.

IA

Washington, Iowa. Harmony Farm SOY FREE WHEAT FREE chicken and duck eggs. Pastured on 40 acres. Fed Organic grains from local mill. \$4.00/dozen chicken eggs and \$7.00/ dozen duck eggs. Farm pickup and delivery from Iowa City to Fairfield. (319) 653-9109 harmony4healthiskey@gmail.com.

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.

Spring River Dairy (Fry Farms Co-op) has raw milk and milk products including 5 raw milk cheeses from healthy Jersey cows grazed on organically managed pasture and hay. Available to herd-share members. Delivery to Fort Wayne and Columbia City. Fry Farms Co-op (260) 704-0132.

MA

Health Hero Farm on the agricultural island of South Hero, VT, delivers high-

range. Lard, pork, chicken and turkey stocks, pork, chicken, turkey and 26 weeks of CSA. No till, nutrient dense. 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.

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.

MO

Fruitful Hills. Grass-fed raw milk, cheese, butter, etc. Raw goat's milk. Pastured pork, chicken, turkey and eggs. Grass-fed beef. Local raw honey. Fermented veggies. Our summer and winter CSA offers fresh organically raised vegetables. Dropsites in select areas. (660) 938-4291.

NY

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.

Dutch Meadows brings you the finest in high quality grass-fed meats and organic dairy products, raised in harmony with the land. Order online and choose from hundreds of farm products, **WE SHIP.** Convenient pick-up locations in NYC. (717) 442-9208 in fo@dutchmeadowsfarm.com – DutchMeadowsFarm.com.

OH

Certified organic fresh picked garden peas. Pastured, soy free, organically fed, chicken eggs. Fresh maple syrup, certified organic rye seed, transition rye seed, certified organic fresh cracked corn. Call (330) 939-5980. Address is 10148 Eby Rd, Sterling, Ohio 44276.

Heritage Devon beef, 100% grass-fed, no antibiotics, no growth hormones. Selling full cow, 1/2 cow or individual cuts from my ranch in St. Leon, Indiana (5 miles off I-74) or at "Lettuce Eat Well Farmers Market" in Cheviot, Ohio (western suburb of Cincinnati, OH – lewfm.org) first Friday of every month. Also pastured pork, 100% antibiotic free, fed minimum amount of non-GMO grain, 100% outdoors on pasture and woods. Pigs use small huts for shelter and farrowing. All meats USDA inspected. To see how we raise our beef and pork plus important health links visit our website abundantgreenpastures. com. For more information call Mike at (812) 637-3090.

Sugartree Ridge Grassfed Herdshare/PMA, located 60 miles east of Cincinnati in Highland County. We deliver 100% grassfed milk, optional A2-A2 milk and many other products to twelve delivery sites in Cincinnati. Farm and contact address is: 6851 Fair Ridge Road, Hillsboro, OH 45133-9548.

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

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RAW CHEESES made from milk from our herd of 100% grass-fed cows on our organically managed farms. Prices start at \$5.25/lb. **WE SHIP.** Oberholtzer at Hilltop Meadow Farm. (570) 345-3305.

Thousand Hills Grazing (in Central PA) is taking orders for nutrient dense pastured poultry (soy free and non-GMO) and 100% grass-fed beef moved daily to fresh pasture. Contact Ben and Cassie Seppanen at (717) 636-0299 or visit thousandhillsgrazing. com for more information.

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.

VA

Salatin family's Polyface Farm has salad bar beef, pigaerator 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 veggies and more! Have dropsites in select areas or **can ship**. Call for details. Pleasant Pastures (717) 768-3437.

VT

Health Hero Farm delivers high-quality 100% grass-fed beef within a wide radius of Burlington, VT. Our farm is certified humane and our pastures are certified organic. Our cattle breeds finish well on only grass. See our video at https://HealthHeroFarm.com/video

WY

Diamond S Ranch specializes in raw A2 milk from our 100% grassfed Jersey & Brown Swiss cows. Also offers grassfed beef, free range eggs, kombucha, sourdough bread, fermented veggies & more. For more information and check what's available at diamondsretreat. com. Wyoming delivery (307) 272-5334, text only. Meadow Maid Foods, 100% grass-fed, grassfinished 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.

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CRAFTS

Beautiful crafts by local artists. Keep your giftgiving 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.

DONATIONS

Please help us bring a service dog home to our autistic daughter. A traditional diet reduced her gut inflammation—this dog will reduce her high anxiety so she can thrive. Donate directly or commission a drawing for our cause: theaccidental octopus.com/about-1/.

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

DIAMOND S RANCH is seeking a ranch couple or individual to be the production manager at our micro dairy & ranch store. Duties include but are not limited to: morning milkings, product production, keeping our customers up to date & sale records management. Resumes to gkrob324@gmail.com.

PERMACULTURE FARM near Tampa FL seeking farming partners. We grow vegetables (in dirt), perennials, and manage a small herd of water buffalo for milk and meat. 54 acres with wetlands and pasture, small orchard, building, equipment, solar systems, housing, and our interests are community, sustainable living, promoting the Weston A. Price Foundation, regenerative farming, ecology, social activism, etc. We are a older couple that want to continue farming. Contact Jon at (813) 708-3179 or e-mail ecofarmfl@yahoo.com.

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 macrobiotoic.com.

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BUSINESS AND FARM IN OREGON LOOK-ING FOR A BUYER AND OR INVESTORS. The farm is a turn key operation. It has a 30 cow 30+ heifer herdshare dairy, with over 100 members. Includes cheese room, greenhouse, underground fodder container 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.

RETREAT

Join Angelika Thusius for a Kentro Body Balance retreat in Greece, Hydra – an enchanting island without cars. Integrating the practical, pleasurable Kentro movements with your activities resolves pain, restoring a healthy back. Discover vitalizing comfort and ease! Aug.30 - Sept.2 KentroBody Balance.com

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TRAVEL/LODGING

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.

NEW FILM

Autoimmune documentary in post production seeks funding or investors. This film tells the stories of those who kept searching for an answer to their challenge and are now lighting the path of healing for others. Contact: Gabe (310) 779-2816 goldenfilmproductions.com/in-production.

Diana Rodgers is a real food nutritionist living on a working farm making a documentary called Kale vs. Cow that will defend the nutritional, environmental and ethical case for better meat. Endorsed by WAPF, Savory Institute, Animal Welfare Approved. Contributions are tax-deductible. Sustainabledish.com/film.

WAPF RESEARCH

ONGOING PROJECTS SHARING THE BENEFITS OF A WAPF DIET FOR GROW-ING CHILDREN: Johanna Keefe, PhD, RN, GAPS/P, has completed her doctoral research through the California Institute of Integral Studies (CIIS) revealing, though in-depth interviews, the lived experience of mothers as they describe their lifestyle following a real food diet based on the principles of the WAPF. Please consider contributing to her post-doctoral project to collect a more robust sample of mothers who are finding positive outcomes over time for their children and teenagers on a traditional diet. You can begin by offering your story to the research blog growingsuccessstories.org, which may serve to seed other doctoral studies, and also contribute to her forthcoming project: a published photo-essay leading to an uplifting film to inform and inspire our next generation of parents. If you would like to find out how to contribute to these projects, please contact Johanna through email at jmkeefe@endicott.edu or by phone at (978) 290-0266.



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healing to one class of men

and deny equal privileges to

others; the Constitution of the Republic should make

a special privilege for medical

freedoms as well as

religious freedom.

Benjamin Rush, MD, (1746-

1813) America's "Father of

Medicine," signer of the

Declaration of Independence.





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https://gutforlife.us Natural Healing Artists, Inc.



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-Leslie Bobb and Lyndsay Gutierrez Speaker for our 2019 Conference



HEALTHY PRODUCTS / INFORMATION



Iqaluich Niginaqtuat 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 Niginaqtuat, 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.)







Wise Traditions

INFORMATION / TRAINING



SUMMER 2019

Wise Traditions



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- Scientific information on raw milk benefits and safety
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- WAPF chapter system helps you find raw milk in your area.

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The spirit cannot endure the body when overfed, but, if underfed, the body cannot endure the spirit.

St. Francis de Sales

"A healthy person has many dreams, a sick person has but one."

-Timothy Weeks, DC



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Upcoming Events

2019

- Oct 11-13 Hendersonville, NC: Southeast Wise Woman Herbal Conference featuring Sally Fallon Morell, Gina Breedlove and Dr. Jody Noe. Contact: sewisewomen.com
- **Nov 2-3** Washington DC: Take Back Your Health Conference featuring Sally Fallon Morell, Ty Bollinger, Robyn Shirley, Vani Hari and Sylvie Beljanski. Contact: takebackyourhealthdc.com
- **Nov 20-24** Lake George, NY: Biodynamic Conference featuring Sally Fallon Morell, Stephanie Morningstar, Çaca Yvaire and many others. Contact: biodynamics.com/conference



Banquet Keynote by Dr. David Diamond

Recordings of Wise Traditions 2018: westonaprice.org

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