Wise Traditions

IN FOOD, FARMING AND THE HEALING ARTS A PUBLICATION OF

THE WESTON A. PRICE FOUNDATION®

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Upcoming Events

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President's Message

The number one focus of the Weston A. Price Foundation has always been children—how to optimize fertility, prepare for pregnancy, nourish the growing fetus and child, and provide the kind of environment that children need to thrive.

This issue explores the subject of children's health, starting with the importance of vitamin A for conception and fetal development, focusing on restoring fertility to women living in a toxic world, and providing guidance that can help you protect your child from physical injury and EMR assault. This generation of children is bearing the brunt of three generations of processed food and infertility is at an all-time high-truly we are in the eleventh hour, with not much time to turn things around.

We are committed to providing our message to as many people and in as many ways as possible-through our journal, our extensive website, our chapter system, through pamphlets and flyers, through our new podcast and through videos and blogs. Our yearly conference, legal actions, our shopping guide and our research efforts all contribute to this educational process. . . as you can see, our modest Foundation is doing a lot! And right now we are feeling the pinch, with many irons in the fire but not enough fuel.

That is why we have embarked on a fund-raising campaign for the month of August. Our goal is to raise one hundred thousand dollars to support our various programs. We need your help. Please turn to page 84 where you will find an appeal letter and donation envelope. You can also donate at westonaprice.org/donate.

Have you or a loved one benefitted from the WAPF message? Is there a vibrant healthy child in your family thanks to our advice? If so, we ask that you give in return to assist us in carrying out our many programs. Please consider a minimum of twenty-five dollars-more if you are able. If all our members gave a donation, however small, we would soon have enough to take care of our current short fall.

Speaking of activities, our conference is right around the corner. The theme of Wise Traditions 2016 is Nutrition for All Seasons of Life, with a plenary session dedicated to fertility and healthy children. We will have tracks on men's health, elder care, vaccinations, diabetes and weight loss, holistic dentistry as well as cooking, gardening and farming-there's something for everyone at this year's conference. See page 14 for details. If you are willing to distribute our conference postcard, let us know how many to send you. We look forward to seeing you there!



What a great place for a conference! We are now seeing a major growth of sustainable farming in such states as Georgia, Alabama, Mississippi, Florida and Louisiana, especially with grassfed and pasture-based livestock. This is because weather and climate conditions dictate the best-use practices of all farm ground. It's as though we just remembered that the South has plentiful and mostly gentle rainfall, a ten-

to-twelve month-long growing season and lots of affordable land. New farms and ranches are popping up all over the South, and they plan to grow delicious, nutrient-dense food.

In addition, the South is beginning to experience exciting times both for lovers of great food and for the farmers and ranchers who know how to raise it! While, for a long time, Americans have been willing to im-

port much of our food from

parched areas where we could extract underground water and haul in artificial fertilizers, we realize that many of these extreme production measures are unsustainable. In addition, the South has been growing many non-food crops such as tobacco or cotton so most folks there have been getting by in man-made food deserts. In spite of a decades-long exodus of population gravitating southward, there wasn't much local food one would want to eat.

I'm excited to see that WAPF has become aware of this tremendous geographic shift in high-quality food production! In addition to witnessing the changes first-hand, we will be able to share our knowledge and our resources with this beautiful part of the U.S.! Well, I do declare. . . the South shall raise (good food) again!

> Will Winter, DVM Minneapolis, Minnesota

tility. I've been founding director of Mission Possible World Health International for almost twenty-five years. Every person I got off aspartame who was infertile got pregnant without exception.

In the original studies, aspartame caused neural tube defects, spina bifida, cleft palate and other abnormalities. There is no pregnancy warning on products containing aspartame. Another point: before aspartame got on the market no one had heard the term

ADD, ADHD.

Betty Martini, D.Hum, Mission Possible World Health Intl

NAXOS, GREECE

In May 2015, my wife and I went to Greece. Most of our time was spent on Naxos, a mountainous island with traditional values. Naxos is the largest of the Cyclades and has an artistic history going back five thousand years. It also supports

itself by agriculture.

Naxos began to dazzle us from the start. We stayed a few nights at the Adonis Hotel in Apollonas on the northeastern side of the island. Stamatis, the hotel owner, immediately introduced us to his organic wines and liquors

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

Wise Traditions 2016 Nutrition for All Seasons of Life



November 11–14, 2016 • Montgomery, AL wisetraditions.org

For conference details, see page 14.

ASPARTAME AND INFERTILITY

Regarding your upcoming conference, I hope whoever is speaking about infertility understands the aspartame connection (mpwhi.com). It's in the book *Aspartame Disease: An Ignored Epidemic*, the thousand-page medical text by H. J. Roberts, MD.

Aspartame is an endocrine-disrupting drug that stimulates prolactin, changes the menses and causes infer-

secured from his orchard. Stamatis also had three separate vegetable gardens and we enjoyed some fantastic home-cooked farm-to-table meals. He and almost everyone else in Apollonas have large organic terraced gardens planted with olives, grapes, fruit trees and vegetables. These terraces have been used for centuries. Most, if not all, crops were grown from heirloom seeds shared among local gardeners and villages. There was no evidence of chemical usage, and goat manure was the principal fertilizer.

All the mountainous villages had terraced gardens winding through them. The terraces throughout the island are watered from numerous mountain springs. This reminded me of the Inca terraces in Peru, except Naxos has a much more lush natural landscape. Both places are famous for potatoes. Who would have thought a Greek island would be famous for its potatoes.

Passing along the terraces and narrow serpentine roads are about fifty thousand well-managed goats. Some cows are kept in the more western, lower, hilly regions of the island. Homemade Naxian cheeses and yogurts are everywhere and taste so special.

Besides great food from the land, the seafood is equally wonderful and always fresh. All the restaurants where we ate served fresh local food and beverages. Just being on Naxos is an experience in agro-tourism.

Even though I have been growing organic vegetables for forty-five years and securing local pasture-fed livestock, eggs and raw milk, there was a definite letdown coming back to the U.S. It was likely due to not being surrounded by a larger traditional community so apparent and complete on Naxos.

The island has other attractions. There are three sixth century B.C. kouros, or partially carved marble statues lying flat in the quarry sites. There is a museum in the port, Naxos town, full of sculptures dating from 3,000 B.C. that apparently inspired Modigliani's art. We highly recommend Naxos as a destination for those who value friendly, generous people, great food and *Wise Traditions*!

> Warren Pierce Eggleston, Virginia

ANTI-VAX CAMPAIGN

I really enjoyed receiving my quarterly magazine from you and support most things that WAPF says and stands for. However, my reason for not resubscribing is because of your antivax campaign.

When my son was six weeks old, whooping cough infected a lot of students at our local primary school because an unvaccinated child attended the school. My older two children still contracted whooping cough but having been vaccinated, they only received a mild dose of the disease. The six-weekold child was at the time too young for vaccination and caught full-on whooping cough. Ten days in the hospital with oxygen for the attacks twenty-four hours per day was a frightening experience.

Our son would have an attack every hour or so. A very strong cough with a terrified look on his face. Early in the attack, he could regain his breath a couple of times with a horrible sounding gasp for air, but the coughing would continue until his skin turned red and then purple. Then he would pass out and immediately turn a ghostly white. My wife and I would look on and pray that he would start breathing again. This went on for ten days!

Please spend a little time to find out what whooping cough really is. You will see why I cannot support your cause.

Name withheld

Reply from Leslie Monookian: We are sorry to hear that your son contracted whooping cough as an infant. It is always distressing when our children are ill. Unfortunately, the whooping cough vaccine is a dismal failure. In fact, most recipients of the vaccine have no immunity two to five years after the shot; worse still, millions of vaccine recipients spread the disease—including vaccinated children (www.thevaccinereaction.org/2016/02/recentlyvaccinated-kids-are-spreading-per*tussis-everywhere/)—without having* any symptoms of their own or knowing they were spreading the disease; furthermore, the vaccine has caused the pertussis microbe to mutate into more virulent strains (www.nvic.org/NVIC-Vaccine-News/March-2016/pertussismicrobe-outsmarts-the-vaccines.aspx), rendering the disease more dangerous than it was before the vaccine—as in the case of your son. While cases of whooping cough and other diseases are often blamed on the unvaccinated, the truth is that the disease is much more likely spread by vaccinated individuals who don't know they are carrying and transmitting the disease. It is also noteworthy that Australia stopped the practice of "cocooning" (www.

news.com.au/breaking-news/statesending-free-parent-whooping-vaccine/ story-e6frfku0-1226350174856) or vaccinating those around a newborn as the evidence showed it did not work. As with all issues the Weston A. Price Foundation addresses, we try to tell you the truth according to the science, not what a health official or other party with an ideological, political or financial interest might want you to know, and this holds true for vaccines. We encourage you to watch The Greater Good (greatergoodmovie.org), check out all the research on their website in their Catalogue of Science; also check out the vaccination page for WAPF (westonaprice.org/vaccinations/). All these sources are fully referenced with scientific literature you will not hear about from health authorities or your local doctor. But that does not make them any less true. Please also check out the new movie Vaxxed: From Cover Up to Catastrophe (vaxxedthemovie. com), which documents the fraud and cover up at the U.S. Centers for Disease Control and Prevention regarding the vaccine-autism link. Vaxxed will be shown at the WAPF Conference in Montgomery, Alabama, November 12, 2016.

QUESTIONABLE VACCINE SAFETY

As a practitioner of Western medicine I read medical journals frequently. One recent article caught my attention. It described a case study regarding an unfortunate young woman who, despite a previous record of excellent health, suffered unexplained weakness, neurological abnormalities, myalgias and paralysis. Miraculously, she recovered most of her capabilities after many months even years of rehabilitation, although no cause was ever discovered.

In her history, the article mentioned that she received a vaccine (meningococcal) less than two weeks before her initial symptoms began. I found it odd that a potential correlation between the two was never considered. Surely the timing alone, (severe neurological deficit following a vaccine) should raise some suspicion. At the very least, this occurrence should have been reported to the federal vaccine adverse event reporting system. I wrote a letter stating such to the editor of the medical journal. Did I receive a response? You can probably guess the answer.

> Rebecca Lord Richmond, Virginia

NO SCIENTIFIC BASIS?

According to a *Time Magazine* article (October 12, 2015), Frank DeStefano, director of immunization safety at the Centers for Disease Control and Prevention, claims that the immune system can handle up to one hundred thousand vaccines at a time and that there is no scientific basis for a delayed schedule. What is the "scientific basis" for the one-hundred-thousand claim? Where is the "evidence-based medicine"? Where are the gold standard placebo controlled, double blind studies proving that number?

That number isn't even "anecdotal." DeStefano just pulled it out of thin air. Who is out to lunch? DeStefano or us? How does this claim get challenged? Robert Beem

Center Harbor, New Hampshire

THIS AIN'T NORMAL FOLKS

In the industry, Gardasil, Merck's HPV vaccine, is referred to as the "have-to-pay-for-Vioxx" vaccine. The company paid out seven billion dollars in liabilities for Vioxx, which killed somewhere between one hundred thousand and five hundred thousand people. They had to pull it off the market.

The appeal of the HPV vaccine is that it is lucrative as well as liabilityfree. With more than seventy-five million U.S. people between nine and twenty-six, this makes it a thirty-two billion dollar market in the U.S. alone, with a recurring annual revenue stream of about three billion dollars. To put this in perspective, Lipitor, Pfizer's mega blockbuster statin was pulling in five billion dollars per year.

No liability for the manufacturers, means it is pure profit. Vaccines in general, and HPV vaccines in particular, are a huge untapped market for drug companies, especially as the market for other drugs is very saturated and intensely competitive.

Quality control can be disposed of as there is no liability. Vaccine manufacturers do not have to do expensive, long term, double-blind placebo studies, and they do not have to take liability reserves (to reiterate, drug companies cannot be sued for vaccines). They have huge marketing funds that drive intense campaigns. These firms will stop at nothing to meet their numbers. including gagging scientists, arresting researchers, getting publications yanked off PubMed, paying off the CDC, blocking contrary journal articles from publication, smearing reputations of doctors, and far worse things.

Parents need to understand the na-

ture of this vaccine, the side effects and what it purports to prevent versus what it actually does; they need to review the work of scientists who have been gagged, and make decisions regarding this dangerous vaccine after they are properly informed. Also please note that under California law, school nurses are permitted to vaccinate your child with HPV without your knowledge, consent or permission.

Educate yourself, educate your child and protect your family! In clinical trials for these and other vaccines get this—the placebo is an aluminum hydroxide solution—a deadly adjuvant! If you compare a poison against a poison, the death rate will of course be equal, thus allowing them to dismiss the side effects as normal and natural. This is shady science to put it mildly. Using the CDC's own statistics on allcause mortality in five to fourteen year olds, the difference is eightfold between vaccine deaths versus all-cause deaths. This ain't normal folks!

> Sushama Gokhale Larkspur, California

THE STRAWMAN DEBATE

I am writing in response to the "Parens Patriae Response" letter, Fall 2015, and the subsequent letter, "Strawman," in Winter 2015. As a mother who sees the benefits of avoiding vaccines both for myself and my children, I am very interested in coming to a more definite conclusion as to the legal authority Parens Patriae has over oneself and one's children.

Al Whitney stated that a parent's objection to vaccination must be in writing, but to whom should this writing be given?

In response to Edward Anderson, who said the answer was not to sign off on the child's birth certificate in order for that individual not to be considered a corporation, would the solution to be a free individual legally able to make one's own medical decisions by having no birth certificate, or simply signing a waiver with the school department? I would appreciate more insight into this all-important issue.

By the way, thank you for your top-notch work and magazine! Nothing else has been more helpful on so many issues.

> Krista Hess-Mills Oldtown, Idaho

CENTENARIANS IN COSTA RICA

In the last issue a writer commented that a centenarian of Costa Rica from the isolated peninsula of Nicova ate about nine spoons of sugar per day. I have interviewed some of these centenarians and all those that I have interviewed said that in their childhood, youth and even recently the only sugar they ate was tapa dulce (evaporated sugar cane); they also said they could only afford to eat it once every two months when they would mix it with coconut or pumpkin to make one small dessert. The rest of the time they went completely sugarless, tapa dulce or not (except some fresh fruit).

If one looks at a map one can see that the peninsula of Nicoya is very far from San Jose, the capital of Costa Rica. About fifty or sixty years ago, a road was built to the area and now there is a ferry and a bridge; in fact the peninsula of Nicoya is now a very big tourist area.

Some years ago when a friend from the U.S. told me that the peninsula of

Nicoya was part of a blue zone group of people, I went to check that website. According to the website at that time, a centenarian from the peninsula of Nicoya ate toasted (oil/fat free) tortillas, squash and beans. After reading that, I shall never trust the Internet because this is so incomplete and so misleading that whenever I make a presentation here to Costa Ricans, they just die laughing because as they all know, the main food of the old people of Nicoya is pork, lard and chicken skin. The other food items are just small extras.

Costa Ricans are mostly descendants of Spanish and Amerindian peoples. There are still some reserves of 100 percent indigenous people, and they are the only group here to have nice dental arches. Everybody else has medium or even severely collapsed arches, which is corrected (sort of) by years of wearing braces—for the less fortunate, the dental care is paid by universal healthcare.

My family and I live seven kilometers from the main town of our area, Turrialba, which was never as isolated as Nicoya. Many years ago I used to buy lard in town and it happened that on some days I could find not one drop of it. When I finally inquired of one of the butchers which day of the week the stores were likely to have it, he informed me that the day the indigenous people came to town-they came by bus from the limit of the indigenous reserve once or twice a week-they bought every single part of the pig, even the ears, and every drop of the fat the store collected in order to make chicharon (fried pieces of pork) to sell. By the way, Costa Rica produced so much lard one hundred years ago that

the country exported it.

I finally went to a faraway village in Nicoya in 2012 and obtained the following information from three very old people who told me that the whole village virtually ate the same way. They had virtually no money, were mostly self-sufficient, especially in food and engaged mostly in barter. Everybody had a big piece of land (milpa) where they grew corn and tubers and where their pigs spent the day eating. They also had at least one milking cow and many chickens. (Costa Rica's entire population at that time was less than a million people for a vast amount of land.) Their houses were made of natural material and covered by a thatched roof

The diet of a family of seven (mother, father and five children) included milk fresh and still warm from the cow and whatever eggs the chickens had managed to lay. They would kill one pig per month on average and that pig gave five gallons of lard to cook for seven people for the whole month.

I must add that one of them (age one hundred three) told me that every two years for the last ten an institute from San Jose (Costa Rica's capital) came to interview him about his longevity, but they never asked him once what kind of oil he used to cook his food. This particular old man said to one of the interviewers that his favorite meat was pork to which this member of the institute replied that pork was the worst meat-this in a country where people today, who have drastically changed their food habits, die like flies from cancer or heart diseases before age sixty-five. There was one old man I could not interview because at age one

hundred four, he was in his corn field working the land under a scorching sun and unbearable heat (not the only one of his age doing this though).

They also went to the mountain to hunt all sorts of game but mainly delicious wild pig.

They ate lots of fish and shrimp from the seas and the river. One man told me that everybody in the village was as thin as a stick (not the situation now) and unlike his children and worse his grandchildren, people's flesh was very hard to the touch, and now his grandchildren's flesh is very soft. They made a lot of bone soup (chicken, pork, beef and fish—no parts wasted). One of the old men told me that bone soup was the cure for a soft body (he had begged his daughter to give bone soup to his sickly grandson to no avail).

Regarding sugar consumption, he said that at first sugar cost money so they did not have it in the village. Second, when they could get their hands on a little of it, it was always tapa dulce. Third, they only had it about every two months, sometimes less frequently. They also sometimes used coconut oil for cooking. They ate some fresh fruits from trees, but no juice.

However, their children and grandchildren eat a lot of processed food, processed vegetable oil, artificial everything sodas and unlimited white sugar and white flour. They also get vaccinated routinely. They do still eat pork and even lard a few times a year, but that does not seem enough to stop the ravages of sugar. The water they drink is from the same location as before but now treated with chlorine.

I have wished to go back and spend more time and conduct more interviews in another village full of centenarians and a bit further from the sea at some point before they completely disappear but have not found the time so far (it is also extremely hot there).

Wishing a ton of blessings for the Weston A. Price Foundation.

Gina Baker, Chapter Leader Turrialba, Costa Rica

TRADITIONAL FOOD IN UZBEKISTAN

Recently I was on an "expedition" to Uzbekistan and enjoyed the very basic food stuffs, including the fermented milk items. An article in the *Uzbekistan Airway Magazine* explained the four basic milk ferments we received at almost every meal. The round, small cheeses were "snacks" and quite a good food with the beer! I also loved the beautiful butter boxes for yak butter!

Keep up the sensational work you are doing!

Jorie Johnson Kyoto, Japan

CONSTITUTIONAL AMENDMENT

I'm a WAPF member who is enthusiastic about your nutritional principles, and am grateful for your work in fighting the bureaucracy that is working to suppress small, sustainable farmers and take away our basic freedoms of what we put into our bodies. I have something that I'd like to share.

Growing numbers of Americans are fed up with industrial food and medicine and are increasingly looking for healthier alternatives, as bureaucrats that are bought and paid for keep introducing legislation that seeks to force us into their system. I think it was from reading Joel Salatin that I first got the

idea, what if freedom to make informed food choices were protected in the Constitution the same way freedom of speech, the press, religion and assembly are? What if freedom to make medical choices for oneself and one's family were protected in the same way?

This may seem like a pipe dream, but it may not be in ten or fifteen years if people's awareness of these issues keeps on rising. Constitutional amendments protecting our freedom to make food and medical choices could eventually be a reality, and would make it a heck of a lot harder for corporations and politicians to subject us to death by a thousand cuts. I don't know legalese so have no clue how this would need to be worded, but I thought I'd pass on the idea to organizations such as WAPF that are on our side and see whether it can get into the collective consciousness of the food movement and medical freedom movement. Changes are happening, and what seems 'pie in the sky' now may become reality later.

> Richard Goerwitz Tecumseh, Missouri

GLYPHOSATE EVERYWHERE

What are we going to do about glyphosate? It is not only tainting California wines, but has been found in German beer, in blood and breast milk—and in the urine of 93 percent of those tested recently at the University of California, San Francisco. This is a health emergency, an environmental emergency—local, state, national and international, caused by Monsanto's Roundup weed killer.

It seems we are turning the whole world into a version of Flint, Michigan, by allowing chemical companies and large corporate interests to poison us, for profit, power and payola. A provision in the Trans-Pacific Partnership (TPP) could soon make it impossible for countries to do things like ban Roundup, without being sued for obstruction of trade. This is subordinating the sovereign rights of nations to corporations. When will it stop?

As a resident of Wine Country, California, I am deeply concerned about the spraying and the drift, the seeping into the precious watershed, salmon and us, the contamination of organic farms where we have been turning for non-toxic food-we might even be breathing glyphosate and drinking it in our water here and in other agricultural areas. I asked the local authorities a year ago whether our water might be tested but received no reply. It feels like we are being given the Flint treatment-being ignored. Glyphosate is not only called a "probable carcinogen" by WHO, but has been found to disrupt gut flora-which as we know can lead to many other health problems.

We hear that Roundup can stay in the soil for twenty years. If we banned it today, we'd still have years of negative effects, though they would presumably decrease... so what are we waiting for? What about the health of our children and grandchildren? If glyphosate was just found in two organic wines tested (in much smaller amounts than the commercial wines, though) it may also be invading organic vegetables, fruits and medicinal herbs, along with the other chemical adjuvants that accompany it. I'm glad to hear that food is now being tested, and eagerly await results.

There are many petitions, but

clearly they haven't done enough. This one, to Gina McCarthy and other world leaders, had well over one million signatures a few weeks back. That's impressive, and yet what is being done? https://secure.avaaz. org/en/monsanto_dont_silence_science_loc_us/?baJIUeb&v=57276.

Please fight to ban these terrible chemicals. We are tired of marching, calling and signing petitions yet having nothing happen.

> Carey Wheaton Sonoma County, California

LOVE THOSE PODCASTS!

I just wanted to take a moment to write and tell you how much I appreciate and have been enjoying the podcasts. I have listened to them all as they have been released (I usually listen while cooking!) and just finished part one of the vaccine discussion. This information absolutely needs to get out there so that more people are aware. Thank you so much for the great work! Marisa Tolsma

Loveland, Colorado

TRIED THEM ALL

Throughout college and over the past year since I graduated, I've given just about every diet a fair trial—veganism, vegetarianism, ketosis, low-carb, fasting, gluten-free, organic, raw, GAPS, juice cleanses—but now that I've found the wise traditional diet of WAPF, I feel like my search has ended. Never before have I found so much wisdom about nutrition in one place. And thank you so much for sponsoring the Wise Traditions podcast! The knowledge I've gained from the podcasts is astonishing.

I've been exposed to Dr. Price's work through many different channels, but so far this podcast is my favorite. It's so enjoyable to listen as I commute, and I come away with profound wisdom about not only nutrition, but life as well. And it has exposed me to so many new healing modalities! First it was beet kvass, then raw milk, then liver pâté—I can't wait to see what's next!

Months ago I was reading a book called *Cure Tooth Decay*, and something about the counsel therein really resonated with me, so thought I would research more into Weston A. Price. After a quick Google search, I found the WAPF website, poked around, downloaded some PDFs, found my local chapter and realized it was led by a good family friend I grew up with! I got in touch with Hilda Gore, who is also the host of the Wise Traditions podcast, and she invited me to a chapter meeting.

There I met Jesse Straight, a farmer trained by Joel Salatin, who came to talk to us about life for his family and animals on his farm. I was impressed by his philosophy ("home should be the source of production, rather than consumption"), and eventually bought delicious eggs from him, and have been invited to spend some time working at his farm to learn more about it.

Since last November, I've met many interesting people through this community, shared many delicious meals, gained improved health and started my own garden!

I think that anyone who eats food can stand to gain from listening to the Wise Traditions podcast. Each of the guests on the show speaks from a place of such authority, and it's a relief to hear their counsel, because you know it comes from a place of hard-won truth. Timothy Gregg Bethesda, Maryland

GUN VIOLENCE

I recently read an article about gun violence in *The Washington Post*. What people don't realize is that sixty or seventy years ago some school students took guns to school, practiced at recess and had shooting clubs. In my childhood many kids had guns, but we had no violence. About the only thing I remember kids getting in trouble for was swearing. So a look at history and science is needed.

Those puzzled about gun violence should begin by reading the research of Drs. Weston A. Price and Francis Pottenger. The implication of their research for Western civilization—obsessed as it is with refined, highly sweetened convenience foods and lowfat items—is profound. If we want to stop violence and poor health in our country, we need to return to the diet of our ancestors.

In addition to a poor diet, we need to look into the effects of drugs for depression and attention deficit disorder. As investigative reporter Jon Rappaport has written, every school shooter was taking prescribed psychiatric drugs. These are known to have side effects of violence and suicide. This is well documented in the book *Toxic Psychiatry* by Dr. Peter Breggin. He asserts that psychiatric drugs are spreading an epidemic of long-term brain damage and mental illness.

Vaccinations contain metals and chemicals that disrupt important functions in the body and brain. In 1990 Harris L. Coulter wrote *Vaccination*, Social Violence and Criminality, in which he predicted that if we did not quit over-vaccinating we would have a dramatic increase in violence in our country. This book was reviewed in *Wise Traditions*, Spring 2013.

> Janice Curtin Alexandria, Virginia

AYURVEDIC DIET

I have been looking into Ayurvedic medicine and diet, and can report that it is very much in line with WAPF principles, and not vegetarian.

In Ayurvedic medicine, there is a procedure known as abhyanga (which I can personally attest to the benefits of) which is the "oiling of the body" (massage oil into the body). Various oils are used to different effects, depending upon one's constitution and health condition. Interestingly, while traditional Avurveda recommends cured sesame oil or coconut oil for this oiling, it also recommends ghee, and for people in very poor health who may be suffering from "wasting" or "dryness," they recommend using lard or marrow fat! Also, they recommend against using all other vegetable oils (except coconut and sesame). It is claimed that when animal fat is mixed with particular herbs, the animal fats act as much better carriers than the vegetable oils, and they claim that animal fat is more nourishing to the skin.

Although Ayurveda does have a "vegetarian" lifestyle plan (which probably evolved to cater to people's spiritual aspirations, rather than as a regime for good health), it most certainly is not vegan and advises copious amounts of ghee, milk, butter, curd, yogurt and buttermilk, which they use

to make a spicy soup called khadi that is eaten on its own or with rice. (By the way, I've also seen in Ayurvedic literature that adding ghee to warmed milk makes it more digestible, which seems in-line with WAPF principles!)

I recently noticed a fairly decent Wikipedia entry for the Sanskrit text Charaka Samhita, which suggests a regimen of Mamsa Rasa (meat soup) during pregnancy from the sixth month onwards. Mamsa Rasa is often recommended for breaking a fast as an adjunct to the healing process. Freshly cut meat is also recommended for the treatment of poison, wherein the cut meat is pressed against the affected part or spot of insect or reptile bite to absorb away the poison. Over one hundred fifty medical substances of animal origin are described in Charaka Samhita, ranging from the meat of wild animals such as fox and crocodile, to that of freshly cut fish, fish oil, eggs of birds and bee's wax. Additionally, the text describes hundreds of formulations it asserts to be of medicinal value from a mixture of animal products with herb or plant products, as well as with inert minerals such as various salts, soots and alkalis. The dispelling of misinformation is a never-ending task it seems.

> Will Quesnel Salisbury, United Kingdom

FIRST-HAND EXPERIENCE

An abundance of glorious book reviews reside in the Spring 2016 edition of our (sooooo valuable) *Wise Traditions*. From the useful, "Don't Bother" reviews, to steer us clear of wasting precious time, to the proclaiming of great books worthy of our Freedom Libraries, most reviews are beautifully and skillfully written, highly insightful, pertinent to our lives, and stuffed (skillfully) with good advice. Collecting the knowledge needed to weather hard times in a "Freedom Library" is a good piece of wisdom, even if we aren't planning to read these gems immediately.

Particularly high on my radar is the subject covered in the book on rampant doctor madness, *Psychiatry Under the Influence*. I know first-hand of the devious ways psychiatrists can make life miserable and glean great profits all the while.

After my husband's successful hip replacement, all appeared to be going well until the third day of recovery when he went into withdrawal symptoms from the psychiatric drug Xanax (Alprazolam), originally promoted to him as non-addictive about thirty years ago. He becomes intensely psychotic (not aware of the present), irrational, vicious, manipulative and paranoid with hallucinations, agitation and other endearing qualities.

His prescription was PRN—Per Required Need. Being mostly asleep and out of it after the surgery, he didn't have the awareness needed to ask the nurses for his regular doses. Right on time, on the third day, the withdrawal symptoms kicked in, and he was seeing helicopters and SWAT teams on rooftops and warning me of people outside our home and in the corridors, murders being investigated and then calling 911, at 6:30 a.m., to get me out of his room since I'd flipped, in his mind, to being one of the bad guys.

He was taken from the rehab facility to an emergency room. Then, without consulting me, he went to a psych "behavioral" hospital. The receptionists at that facility kept saying they "could neither confirm or deny" that he was a patient, despite his daughter, in another state, telling me she'd spoken with him and their therapist.

Frantically, I searched through international warnings/side effects of his medications, found in the search engine at CCHRint.org. I typed up what I found, which included the exact symptoms he was displaying. At the top, I noted the source. They wouldn't take the envelope with this information so I tossed it through their security window and left.

The next day, I got a call asking about how soon I could come to take him home as he was now stable and ready. He had symmetrical bruises on the inside of both forearms (some restraints are illegal, I believe), symmetrical sores on the tops of his feet (exit wounds from electric shocks?), and was fearful, uncertain, weak and frightened-not at all "stable." He spoke of being left for hours in a wheelchair, despite his recent surgery; lights on all day and night. One imagines that professionals in a field would improve, rather than worsen, conditions. He now has Tardive Dyskenesia (similar to Parkinson's), as mentioned in the book review, due to the drug cocktail given throughout his journey. And, years later, he still has the nightmares along with memories of the good people he met on the inside-the other patients.

> J Mc Colorado Springs, Colorado

Caustic Commentary

Sally Fallon Morell takes on the Diet Dictocrats

STRANGE LOGIC

In an effort to counter declining sales, the giant food processor Nestlé is interested in "tapping into an estimated \$15 billion market for prescription-based powders and drinks intended to meet specific nutritional requirements to treat diseases." Here's how it works: you spend your life eating

Nestlé's food-like substances; then you develop a disease that modern doctors seem unable to treat; then you try one of Nestlé's food-like powders or drinks available from your doctor. The products "will have active ingredients derived from food products or dietary ingredients" but that does not mean they are food. Of course the solution to avoiding and even treating disease is to consume only real food-real. nutrient-dense food. but there is no profit in such a logical approach for Nestlé (Wall Street Journal, April 13, 2016).

ONGOING DEBATE

The debate between vegetarians and non-vegetarians is nothing new. Historic Forde Abbey has two dining rooms. The second was built around the year 1500 to separate the meat-eating monks from the vegetarians,

who didn't want to associate with those who ate animal foods (http://tinyurl.com/z4e45e2)!

POISONED PLANET

It seems there is no escaping glyphosate, the main ingredient in the herbicide Roundup. Deemed a probable carcinogen by the World Health Organization, glyphosate–sprayed grains increase the rate of birth defects and stillborn babies in pigs. It can show up in irrigation water and drift from spraying. A recent study found glyphosate in California wines, even wines made with organic grapes (thelibertybeacon.com, March 30, 2016). The contamination of conventional wine was twenty-eight times higher than organic wine, with levels ranging from 0.659 ppb in organic to 18.74 ppb in conventional. The wines tested came from the Napa Valley, and Sonoma and Mendocino counties (where breast cancer rates are 10-20 percent higher than the national average).

Use or Work with ROUNDUP or other pesticides?

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Glyphosate residues turn up in wheat as well, even though, like grapes, it is not a GMO crop-farmers use Roundup to desiccate wheat stalks just before harvest. In tests carried out by Tropical Traditions (a private company), conventional wheat tested at 0.07-0.09 mg/kg while organic wheat tested only slightly lower at 0.03-0.06 mg/kg. (For a typical GMO crop such as soybeans the range is 3.3-5.7 mg/kg, considerably higher.) The point is, we can't completely avoid glyphosate, even if we choose only organic food and beverages. Scientists in Germany have found urine glyphosate residue at levels five times higher than the legal limit for drinking water in three-quarters of the population. Apologists claim

that glyphosate is "quickly excreted in the urine and poses no risk." One small light on the horizon: the personal injury lawyers have gotten into the act. Maybe the route to removing Roundup from general use is through the courts and not via government action.

FIGHT CHRONIC DISEASE?

When an organization promoting "health" places a full-page ad in *The Washington Post*, it pays to look a little deeper. The Partnership to Fight Chronic Disease (PFCD, FightChronicDisease.org) published a full-page letter to the presidential

Caustic Commentary

candidates on March 8, 2016, signed by almost ninety important sounding professors from prestigious universities, urging the candidates to determine "the most effective strategy and allocation of resources to reduce the burden of chronic disease" in America. If you search "nutrition" on this site, you will find that the organization wishes to advance "science-based nutrition" and is against "processed foods high in fat, sodium and calories"-no mention of sugar, of course, while "fat" conjures up notions of lard and butter. The PFCD seems to be in partnership with the Academy of Nutrition and Dietetics (eatright.org), which endorses the 2015 USDA Dietary Guidelines for Americans and advises us to "replace solid fats such as butter or margarine with oils when cooking or baking." Babies should get "single grain infant cereal mixed with formula or breast milk" as their weaning food. Recipes on the eatright.org site favor chocolate and gut-destroying raw oats, as in "No-Bake Chocolate Cherry Oat Bars" and a "Tropical Fruit Smoothie" made with fatfree milk and raw rolled oats. Other recipes call for lowfat mayonnaise, agave nectar, low-sodium chicken broth and tofu. In short, PFCD promotes the very diet that has created America's health crisis in the first place, and seems to have collected a lot of money to convince us to continue with the same ole' disastrous dietary advice.

HAVE SOME DELICIOUS WOODY BREAST

In the quest to develop a chicken that grows as big as possible in the shortest amount of time, the poultry industry has run into an unexpected problem: woody breast. A rising number of broiler chicken breast filets are now laced with hard fibers, which consumers find repulsive and disgusting-or as one industry rep delicately put it "you have to put more energy in to chew on this kind of meat." In 1930, the average chicken weighed about two and one-half pounds compared to over six pounds in 2010; and it took fifty days to put a pound on a chicken in 1930 compared to just under eight days in 2010. Of course, the industry is looking at the bottom line. Said one analyst: "Is it worth it to produce more pounds and lose business because your customer doesn't want to take your woody breast meat anymore?" Some processing plants are able to sort out woody breast meat and vector it into the production of chicken sausage. Another problem is "green muscle disease" due to hemorrhages in the muscle. Scientists are looking for a "genetic component" to these conditions but the real solution is for consumers to boycott commercial chicken and purchase their poultry from farmers raising their birds outdoors, the way nature intended (*Wall Street Journal*, March 29, 2016).

LET'S HAVE A NISIN MILKSHAKE

"Nisin is a polycyclic antibacterial peptide produced by the bacterium Lactococcus lactis that is used as a food preservative." This is the scientific description of this beautiful, complex molecule containing the components of thirty-four amino acids. While most such bacteriocins inhibit only closely related species, nisin is a rare example of a "broadspectrum" bacteriocin effective against many pathogens including Listeria monocytogenes, Staphylococcus aureus, Bacillus cereus and Clostridium botulinum. It is also particularly effective against spores. New research indicates that nisin can also protect against cancer. Researchers at the University of Michigan School of Dentistry found that feeding rats a "nisin milkshake" killed 70-80 percent of head and neck tumor cells after nine weeks and extended survival (PLOS ONE 2015 Jul 1;10(7)). Of course this will lead to the development of expensive nisin products, but we know that there is a much less expensive-and probably more effective-source: raw milk. Nisin is destroyed by heat so the milk has to be unpasteurized to get all the anti-microbial and anti-carcinogenic effects.

MUMPS MYSTERY

You may not have seen this reported on the front page of your newspaper, but a mumps outbreak affecting at least forty students at Harvard University has officials panicked and puzzled—because all of them were vaccinated. A second outbreak has occurred at Sacred Heart University in Connecticut. Dr. William Schaffner, described in the media as "an infectious disease expert at Vanderbilt University," admits that colleges and universities have been at the center of many mumps outbreaks in recent years. "Universities are a wonderful receptor site for young adults incubating mumps," he noted, while not addressing the obvious: if they are all vaccinated and supposedly protected, why are they getting sick? Mumps is particularly serious in adult men because it can cause sterility. According to CDC, "Two doses of the

Caustic Commentary

vaccine are approximately 88 percent effective at preventing mumps and one dose is 78 percent effective"—a claim for which no research is provided. Of course, the best protection against lifelong infertility from the mumps is to get the disease when you are young—we need mumps incubation parties for our boys, not vaccinations to delay getting mumps until adulthood.

VITAMIN A FOR ENTERIC PATHOGENS

You can always count on hearing the latest on vitamin A in these pages, so we are happy to present the results of a 2015 study on vitamin A deficiency in mice. Mice deficient in vitamin A and exposed to a pathogen developed severe gut infection, lethal in 40 percent of the cases. Vitamin A-sufficient mice survived and cleared the infection in twenty-five days. The data suggest that vitamin A regulates T cell function to limit inflammation following chemical and infectious injury to the gut—important findings for anyone suffering from irritable bowel syndrome (IBS), Crohn's disease or other types of intestinal inflammation. The findings also explain why it is so important to drink whole milk, because the vitamin A carried in the fat will protect against any possible infection from the milk (*Infection and Immunity* July 2015;83(7):2984-2991).

DASHING HOPES

The main problem doctors have with cholesterol-lowering statin drugs is what they call "non-adherence." People have side effects when they take them, most often muscle pain, but also memory and cognitive problems and new-onset diabetes. Something like 50 percent of all patients put on statins have discontinued them after one year. So the pharmaceutical industry had high hopes for a drug called evacetrapib, which reduces LDL-cholesterol and raises HDL-cholesterol by inhibiting something called CETP (cholesterolester transfer protein). In a recent study, patients taking the drug saw their LDL levels fall about 37 percent and their HDL more than double. Yet these encouraging numbers did nothing for the participants. The number of heart attacks, strokes and deaths from cardiovascular disease were practically the same in the treatment and placebo groups. The researchers naturally are scratching their heads. "It's the most mindboggling question. How can a drug that lowers something that is associated with benefit not show any benefit?" asked Dr. Stephen Nicholls, the study's principal investigator (New York Times, April 4, 2014). Of course, readers of *Wise Traditions* know the answer—that LDL levels are not good predictors of tendency to heart disease, and even if they are, the answer is not to force them lower but to change the conditions known to raise cardiovascular risk—especially the consumption of processed foods based on vegetable oils and refined sweeteners.

MASSIVE RECALL

A massive recall involving millions of packages of frozen fruits and vegetables shows the folly of trying to regulate outbreaks with new regulations such as the Food Safety Modernization Act (FSMA). The frozen foods-over four hundred products selling over forty brand names from DRF Frozen Foods in Pasco, Washington-were shipped to all fifty U.S. states, Canada and Mexico. The outbreak so far has sickened eight and caused two deaths. Many of the food items could be lingering in people's freezers-and could be there for years. In addition, forty-seven million pounds of vegetables from the CRF plant went into seventy Asianstyle products produced by Tokyo-based Ajinooto Windsor, which had to recall its products as well (yahoo.com, May 20, 2016). It's doubtful that any of the provisions in FSMA could have prevented an outbreak like this; meanwhile the regulations fall heavily on small producers that do not pose any threat for widespread illness and death. The solution? Hold producers responsible for the safety of their food while encouraging Americans to eat fresh, local and artisan.

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.



NUTRITION FOR ALL SEASONS OF LIFE

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Richard Morris, author of A Life Unburdened Ramiel Nagel, author of Cure Tooth Decay and Healing Our Children Frank Niceley, Tennessee state senator Tetyana Obukhanych, PhD, author of Vaccine Illusion Daphne Olivier, LDN, RD, CDE, CLT, expert on metabolic disorders Alan Phillips, JD, leading vaccine rights attorney Laura Schoenfeld, RD, expert on adrenal health Pam Schoenfeld, RD, co-director Healthy Nation Coalition Kim Schuette, CN, expert on nutritional & biotherapeutic drainage therapies Stephanie Seneff, PhD, expert on sulphur and vitamin D Raymond Silkman, DDS, holistic dentist, dento-facial orthopedics Lorie Stevens, DMD, holistic dentist Nina Teicholz, author of The Big Fat Surprise Kim Thompson, RYT, movement instructor Veronica Tilden, DO, expert on fertility and hormone health Sandra Van Gilder, DPT, FAFS, creator of The Move Method Carrie Vitt, deliciouslyorganic.net Andrew Wakefield, MD, gastroenterologist and vaccine expert Cilla Whatcott, PhD, HD, RHom, CCH, author There Is a Choice: Homeoprophylaxis Louisa Williams, MS, DC, ND, author of Radical Medicine Will Winter, DVM, expert on pastured livestock Jereme Zimmerman, author of Make Mead Like a Viking

LOCATION AND ACCOMMODATION

The conference hotel is the Renaissance Montgomery Hotel; 201 Tallapoosa St, Montgomery, Alabama 36104. Attendees are offered a special room rate of \$139 per night (plus taxes and fees) until October 20, 2016 or until all rooms are sold. This rate is for single through quad occupancy. To reserve your room use the code "WES" and phone (334) 481-5000 or (800) 468-3571. Self parking is \$12 per day; valet is \$19.

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Will Winter: Guided Farm Visit Sandra Van Gilder: Movement Workshop Carrie Vitt: Nutrient-Dense Family Cooking **Cilla Whatcott:** Support Immunity with the Perfect Disease Prevention Kate Birch: Homeopathy for the Early Years Laura Schoenfeld: Workshop on "Adrenal Fatigue"

MONDAY, NOVEMBER 14

WISE TRADITIONS 2016 REGISTRATION FORM

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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 18, 2016 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 at the Renaissance Montgomery Hotel.

Wise Traditions 2016 Montgomery Schedule

THURSDAY NOVEMBER 10

10:00-4:00 Chapter Leaders Meeting 06:00-9:30 FTCLDF FundRaiser Dinner (tickets sold separately)

FRIDAY NOVEMBER 11

07:00-07:45 Kim Thompson: Gentle Movement 08:00-08:45 Kim Thompson: How to Sit Comfortably

Track I: Nourishing Traditional Diets - Sally Fallon Morell

09:00-12:00 Characteristics of Healthy Diets, Part I 01:30-03:00 Characteristics of Healthy Diets, Part II 03:30-05:00 How to Change Your Diet for the Better

Track II: Gut & Psychology Syndrome - Natasha Campbell-McBride, MD

10:00-12:00 Gut & Psychology Syndrome, Part I 01:30-03:00 Gut & Psychology Syndrome, Part II 03:30-05:00 Gut & Psychology Syndrome, Part III

Track III: Weston A. Price and the Fat-Soluble Activators - Chris Masterjohn, PhD

10:00-12:00 Ancient Wisdom/Modern Science and the 20th Century Attack on Wholesome Food and the 21st Century Food Revolution 01:30-03:00 The Fat-Soluble Trio and Their Synergistic Partners 03:30-05:00 Practical Applications to Nourish Our Soil and Human Health

Track IV: Farming and Gardening

10:00-12:00 Will Winter DVM 01:30-03:00 Alvin Bey & Calvin Bey, PhD: Chemical-Free Yards and Nutrient-Dense Vegetables 03:30-05:00 Will Harris: One Family, One Farm, Five Generations, 150 Years

Track V: Cooking/Lifestyle

10:00-12:00 Hannáh Crum: Fermented Drinks, Nature's Healthy "Sodas" 01:30-03:00 Jereme Zimmerman: Make Mead Like a Viking 03:30-05:00 Carla Bartolucci: Einkorn: Nature's Original Wheat

Friday Evening Activities

8:00-10:00 Leah McCullough: Natural Recovery from Fibromyalgia
8:00-10:00 Ask the Practitioner Panel with Kim Schuette, Tom Cowan, MD, Natasha Campbell-McBride, MD, Ann Childers, MD
8:00-10:00 Dean Bonlie, MD, DDS The True Cause of Heart Disease and Miracles of Magnetism
8:00-10:00 Film Vaxxed (Free to the Public). Followed by Q&A with Director Andrew Wakefield, MD

SATURDAY, NOVEMBER 12

06:00-06:45 Kim Thompson: Gentle Movement 07:00-07:45 Kim Thompson: Release Low Back Tension

Plenary Session: Healthy Pregnancy & Children

09:00-09:30 Sally Fallon Morell, MA: Introduction to the Work of Weston A. Price 09:30-10:45 Kim Schuette, CN: Mindful Conception 11:00-12:15 Sally Fallon Morell, MA: Bringing Up Baby–Foods for Optimal Growth and Development 01:45-03:00 Beth Lambert: Documenting Hope: Redefining Children's Health in the 21st Century 03:15-04:30 Mandy Lee: Real Food Recovery – Courageous, Simple, Practical, Success with Kids

Morning Wellness Track - Stephanie Seneff, PhD

09:00-12:15 Stephanie Seneff, PhD: Microcephaly in Brazil, Is it Really Just Zika?

Afternoon Wellness Track - Tom Cowan, MD

01:45-04:30 Tom Cowan, MD: The Adrenal Heart Connection

Wise Traditions 2016 Montgomery Schedule

SATURDAY NOVEMBER 12 (Continued)

Weight Loss/Diabetes

09:00-10:30 Daphne Olivier, LDN, RD, CDE, CLT: Breaking Down the Nutrition of Diabetes 10:45-12:15 Richard Morris: Winning Strategies for Life-Long Weight Loss 01:45-03:00 Nina Teicholz: Fat, Your Best Friend for Weight Loss 03:15-04:30 Ann Childers, MD, FAPA: Stone Age Body, Space Age Diet

06:30-10:00pm Awards Banquet

Nina Teicholz: The Big Fat Surprise

SUNDAY NOVEMBER 13

06:00-06:45 Kim Thompson: Gentle Movement 07:00-07:45 Kim Thompson: Relieve Neck and Shoulder Tension

Track I: Elder Care

09:00-10:20 Ken Morehead, MSOM : Aging Well with Vitality 10:30-11:50 Pam Schoenfeld, RD: Preventing Malnutrition in the Elderly 01:30-02:50 Kim Rodriguez Hovey, RD: A Dietitian's Experience in the Nursing Home 04:00-05:20 Sally Fallon Morell, MA: Our Seniors: Dumping Grounds for Drugs?

Track II: Men's Health

09:00-10:20 Ben Greenfield: Fueling the Ancestral Athlete 10:30-11:50 Nina Teicholz: Red Meat and Warriors 01:30-02:50 Chris Masterjohn, PhD: Nourishing Testosterone 04:00-05:20 Veronica Tilden, DO: Treating Male Infertility

Track III: Dental

09:00-10:20 Louisa Williams, MS, DC, ND: Mercury Amalgam Detoxification 10:30-11:50 Ramiel Nagel: Heal & Prevent Tooth Decay & Gum Disease the Natural Way, with Food 01:30-02:50 Raymond Silkman, DDS: Is It Mental, Or Is It Dental? 04:00-05:20 Lorie Stevens, DDS: Holistic Dentistry, Your Family's Dental Health: Extracting the Truth

Track IV: Vaccination

09:00-10:20 Leslie Manookian: Is Vaccination Supported by Science? 10:30-11:50 Tetyana Obukhanych, PhD: The Immune System 01:30-02:50 Andrew Wakefield, MD: MMR Vaccine and Autism 04:00-05:20 Alan Phillips, JD: Vaccine Politics & Your Legal Rights

Track V: Practical/Lifestyle

09:00-10:20 Celeste Longacre: Ferments, Ferments, Ferments! 10:30-11:50 Sandeep Agarwal: Traditional Indian Cooking Using Ghee, Spices & Herbs 01:30-02:50 Kelly the Kitchen Kop: Help for Parents: Getting Kids to Eat and LOVE Real Food 04:00-05:20 Louisa Williams, MS, DC, ND: Removing the Five "Obstacles to Cure"

Closing Ceremony (5:30-6:30): Frank Niceley, Tennessee State Senator: Restoring the Family Farm

MONDAY NOVEMBER 14

07:00-06:00 Will Winter, DVM: Guided Farm Visit 09:00-04:00 Carrie Vitt: Nutrient-Dense Family Cooking 09:00-04:00 Sandra Van Gilder, DPT: Movement Workshop 09:00-04:00 Laura Schoenfeld, RD: Treating "Adrenal Fatigue"

Homeopathy Workshops

09:00-12:00 Cilla Whatcott, PhD: Support Immunity with the Perfect Disease Prevention 01:00-04:00 Kate Birch, RSHom(NA), CCH: Homeopathy for the Early Years

The Scarlet Nutrient: The Unfair Stigmatization of Vitamin A

By Pam Schoenfeld, MS, RD, LDN

f you take a prenatal vitamin, look on the label to see whether it contains vitamin A (some brands actually don't contain any vitamin A), it will probably indicate "from beta-carotene or mixed carotenoids." When you see this, think carrots, sweet potatoes or papaya, all excellent sources of the pro-vitamin A precursor beta-carotene. You may recall hearing "eat your carrots—they are good for your eyes." Indeed, for many people, eating orange fruits and vegetables supplies beta-carotene, which can be converted to retinal for the light-absorbing pigments in the retina.

Vitamin A can take one of three forms in the human body—retinol, retinal and retinoic acid—depending on its level of oxidation and purpose. Normal embryonic development depends upon retinoic acid for the correct expression of the receptors in the differentiating cells—that is, for the transition from undifferentiated stem cells into differentiated cells such as heart cells, bone cells and brain cells. For this differentiation to occur, vitamin A supplied by the diet must be available in adequate forms and quantities. While essential throughout the lifespan for growth, immunity, epithelial tissue maintenance, lung and visual function, "[vitamin A's] influence is particularly critical during periods when cells proliferate rapidly and differentiate, such as during pregnancy and early childhood."¹ Deficiencies of vitamin A produce a myriad of deleterious outcomes in animals

including defects in the eyes, snout, dental arches and in the worst case, spontaneous abortion or death of mother and offspring during labor, as described by Weston A. Price.² In humans, even mild deficiencies during pregnancy can lead to compromised kidney development in the child.³

Vitamin A's role in reproduction has been solidly established. But questions remain. What is the optimal amount of vitamin A during pregnancy? Are women getting enough to support the health of their babies? Is it possible to get too much?



The National Academy of Sciences Institute of Medicine (IOM) has established the recommended dietary allowance (RDA)⁴ of vitamin A for non-pregnant females at 700 μ g/day of retinol activity equivalents (RAE, explained below), and the RDA for pregnant females at 770 μ g/ day RAE (2570 IU). This is only 70 μ g or just 10 percent more than the requirement for a non-pregnant female. The questionable methodology used to determine the pregnancy RDA has been discussed by Chris Masterjohn, PhD.³ For newborn infants, an adequate intake is 400 μ g/ day (1320 IU)—more than half the total RDA during pregnancy.⁵ Current public health guidelines advise that people consume at least 2.5 cups of fruits and vegetables a day to ensure adequate nutrient intake of RAE from carotenoids. However, the U.S. Centers for Disease Control and Prevention (CDC) also states: "fish-liver oils, liver, egg yolks, butter, and cream are known for their higher content of [preformed] vitamin A."⁶



The IOM set the tolerable upper intake level during pregnancy at 3,000 μ g/day RAE (10,000 IU).⁷ The upper level only applies to the intake of preformed vitamin A (retinol) not to carotenoids, which are not assigned an upper level.

Although beta-carotene is not limited during pregnancy, a high intake can cause carotenemia, which has been associated with amenorrhea in young vegetarian women.⁸ Recent research also suggests that cleavage products of beta-carotene can block vitamin A at its receptor sites—another possible anti-nutrient?⁹

According to USDA data, 53 percent of women ages eighteen to thirty have a usual intake of vitamin A from diet that

falls below the estimated average requirement (EAR) of 500 µg RAE/day.10 An EAR is calculated to meet the requirements of 50 percent of the individuals in a gender/age group; half of this group will not have their needs met from intakes equal to the EAR. The RDA is set higher in order to include 97.5 percent of the individuals in the entire gender/age group. In the case of vitamin A, 53 percent of women in their prime reproductive years do not even meet this very low dietary intake of 500 µg (1670 IU). The usual dietary intakes in the lowest fifth and tenth percentiles of females ages eighteen to thirty are 210 µg and 257 µg respectively, only one-third or less of the RDA.11,12 The USDA named vitamin A one of the "shortfall nutrients," but did not

QUANTIFYING VITAMIN A

You may be more familiar with quantifying vitamin A in international units, or IU. Supplement labels report vitamin A amounts in both IU and % daily value and food labels report just the % daily value, which is based on highest IUs needed for an adult. (The current "Nutrition Facts" label on foods will no longer require vitamin A to be listed as of July 2018.) According to FDA policy: 100% of the daily value for vitamin A is 5,000 IU for non-pregnant adults and children four years old or older; in pregnancy the daily value increases to 8,000 IU. The FDA daily values for all nutrients have not changed since 1995, and are based primarily on the 1968 RDAs which were re-established by the IOM starting in 1997. In 2001, the IOM set the current RDA at 770 μ g/day RAE for pregnant women 19 years and older, equivalent to 2,570 IU. The IOM set the tolerable upper intake level for all adults 19 years and older at 3,000 μ g/day RAE which equates to 10,000 IU of preformed vitamin A. You can arrive at IUs by multiplying RAEs by 3.33.

go a step further and designate it as one of the "nutrients of concern" which would indicate a substantial public health risk.¹³

The FDA provides guidance to manufacturers regarding vitamin supplement labeling: the FDA's "daily value" of vitamin A for pregnant and lactating women continues to be 8,000 IU, since publication in the Federal Register in 1993.¹⁴ Recently, the FDA removed vitamin A from its mandatory Nutrition Facts Label for packaged foods, a move they made because they claim "[i]n the early 1990s, American diets lacked Vitamins A and C, but now Vitamin A and C deficiencies in the general population are rare."15 It is unclear how the U.S. diet has changed to contain more vitamin A. However, because "vitamin A" on a label does not usually indicate the presence of true vitamin A, but rather carotenoids, this omission may not matter.

According to the CDC, more than 95 percent of the U.S. population has adequate serum vitamin A levels of 20 μ g/dL or greater, in line with the World Health Organization (WHO) standard of less than 20 μ g/dL used to define public health problems. The CDC has estimated the prevalence of low serum vitamin A among females to be 0.2 percent, or 317,000 American women.¹⁶ Yet the CDC acknowledges that: "[s]erum retinol values do not always reflect total body status because of homeostatic control and therefore are often not useful for assessing the vitamin A status of individuals. Additional tests may be required to confirm vitamin A deficiency when $20 \mu g/dL$ is used as a cutoff."

According to a WHO report, in the U.S. vitamin A status can be poor, especially among low-income populations. In children qualifying for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), 32 percent were in the "uncertain area" for the modified relative dose response (MRDR) values (an indication of low vitamin A stores). Furthermore, an assessment of low-income pregnant women showed that an alarming 9 percent were above the international MRDR cut-off of 0.060 for vitamin A adequacy (frankly vitamin A deficient).¹⁷ The MRDR cut-off is a more accurate method of determining vitamin A status, as explained below.

While stating that "high-dose" vitamin A should be avoided in pregnancy, particularly between day fifteen and day sixty following conception, the WHO recommends vitamin A supplementation in regions where deficiency is common for the prevention of night blindness. Supplementation of 10,000 IU/day or 25,000 IU/week is recommended for pregnant women in these areas, beginning after day sixty of gestation and continuing for at least twelve weeks or until delivery.¹⁸ (Note that "high dose" vitamin A of 50,000 to 400,000 IU has typically been administered within six to eight weeks postpartum in areas of endemic vitamin A deficiency, with the higher amount being more effective at raising breast milk concentrations.¹⁹) Perhaps it would be wise to consider the real probability that many "well-nourished" American women are

THE ROTHMAN STUDY

The study usually cited in support of warnings against vitamin A during pregnancy was carried out by KJ Rothman and his team in 1995 at the Boston University School of Medicine and published in *The New England Journal of Medicine*.¹ In the study, researchers asked over twenty-two thousand women to respond to questionnaires about their eating habits and supplement intake before and during pregnancy. Researchers found that cranial-neural crest defects increased with increased dosages of vitamin A; but neural tube defects decreased with increased vitamin A consumption, and no trend was apparent with musculoskeletal, urogenital or other defects.

This study is a poor rack on which to hang the myriad warnings that have kept pregnant women from eating liver and taking cod liver oil. Researchers made no distinction between synthetic vitamin A derived from multivitamins and processed foods like margarine, and natural vitamin A from food; nor did they take blood samples to determine vitamin A status. Food recall surveys are a notoriously inaccurate method of determining nutrient intake.

Subsequent studies found that high levels of vitamin A did not increase the risk of birth defects. A 1998 study from Switzerland looked at vitamin A in pregnant women and found that a dose of 30,000 IU per day resulted in blood levels that had no association with birth defects.²

A 1999 study carried out in Rome, Italy found no congenital malformations among one hundred twenty infants whose mothers consumed an average of 50,000 IU of vitamin A per day.³ Some participants consumed up to 300,000 IU vitamin A daily during pregnancy with no birth defects in the offspring. An average of 50,000 IU vitamin A per day is consistent with WAPF recommendations of cod liver oil to supply 20,000 IU per day plus additional vitamin A in liver, butter, seafood and egg yolks.

REFERENCES

- 1. Rothman KJ and others. Teratogenicity of high vitamin A intake. N Engl J Med. 1995 Nov 23;333(21):1369-73.
- 2. Wiegand UW and others. Safety of vitamin A: recent results. Int J Vitam Nutr Res. 1998;68(6):411-6.
- 3. Holmes LB. Need for inclusion and exclusion criteria for the structural abnormalities recorded in children born from exposed pregnancies. *Teratology*. 1999 Jan;59(1):1-2.

living in a country where vitamin A deficiency is common?

LIVER FOR VITAMIN A

In 2015, the European Food Safety Authority set population reference intakes at 650 μ g (2170 IU) for non-pregnant women and 700 μ g (2333 IU) during pregnancy. The German Nutrition Society recommends a 40 percent increase in vitamin A intake for pregnant women equal to 1100 μ g RAE (3670 IU).²⁰ Unfortunately, "pregnant women or those considering becoming pregnant are generally advised to avoid the intake of vitamin A-rich liver and liver foods, based upon unsupported scientific findings. As a result, the provitamin A carotenoid β -carotene remains their essential source of vitamin A."²¹

"The average intake of β -carotene in Germany is about 1.5–2 mg a day. . . the total vitamin A contribution from β -carotene intake represents 10–15 percent of the RDA."²¹ Without sources of retinol, it is highly unlikely German women will meet these recommendations. Compared to other foods, "the only relevant dietary source for vitamin A is liver. All other foods containing preformed vitamin A need to be consumed in atypically large amounts in order to meet the vitamin A requirement. Only 10–15 g [1/2 ounce] of animal liver is necessary to meet the daily requirement, demonstrating that liver is the most important source of vitamin A for humans."²¹ Other foods like meat, butter, eggs and milk only contribute a small portion (less than 20 percent) of dietary preformed vitamin A.²¹ We would agree that liver makes a unique contribution to the diet—that of easily satisfying vitamin A needs.

The UK and Australian guidelines state that evidence is lacking to support routine supplementation of vitamin A and that excessive quantities of fat-soluble vitamins may cause harm. They go further to recommend that pregnant women avoid consuming liver and liver products.^{22,23,24}

While true that "excessive" quantities of fat-soluble vitamins can be harmful, does the practice of eating four ounces of liver weekly lead to an excessive intake of vitamin A? A Liver makes a unique contribution to the diet—that of easily satisfying vitamin A needs.

VITAMIN A SUPPLEMENTATION FOR PREGNANT WOMEN?

The assumption that the vitamin A intakes of pregnant women in the U.S. are more than adequate is widespread. Between 1981 and 1989, the reported average intakes in studies of pregnant women ranged from 711 to 1440 RE (2,370 to 4800 IU), which exceeded the then RDA of 800 retinol equivalents (RE)¹ similar to the current RDA of 770 RAE (although REs were quantified using the more liberal conversion factors for carotenoids to retinol, which have been shown to be overestimated by at least a factor of two). Today, the average dietary intake among females nineteen to thirty years is 515 RAE (1720 IU)² which may represent a 50 percent decrease from the 1980s, or could reflect the more accurate conversion factor used today. In 2001 the IOM recommended a new unit, the retinol activity equivalent (RAE). Each μ g RAE corresponds to 1 μ g retinol, 2 μ g of β -carotene in oil, 12 μ g of "dietary" beta-carotene, or 24 μ g of the three other dietary provitamin-A carotenoids.³

In 1990, the Food and Nutrition Board of the IOM recommended "carefully supervised supplementation" for certain at-risk groups of pregnant women, stressing that "supplementation of vitamin A should be approached with caution until the risk is clarified."¹ This recommendation came prior to the Rothman study (see sidebar, page 20), which argued against the use of vitamin A by pregnant women, yet there were already some indications that large doses of vitamin A were problematic—chiefly based upon outcomes in women who took the acne medication Isotretinoin during the first trimester. At that time, most scientists suggested that an intake of at least 20,000 to 50,000 IU per day was associated with an increased risk for birth defects.

A few researchers have made efforts to draw attention to this issue. It is "in our opinion rather likely, that a significant portion of the low-income population in some of the most industrialized countries suffers from undiagnosed low vitamin A status. Women in these populations. . . would benefit from a safely designed vitamin A supplementation protocol. How-ever, to our knowledge, there has been no attempt to identify these women or to correct their nutritional deficiencies."^{4,5}

^{1.} Committee on Nutritional Status During Pregnancy and Lactation, Institute of Medicine, ed. Nutrition During Pregnancy: Part II: Nutrient Supplements. Washington, US: National Academies Press, 1990. http://www.nap.edu/download/1451

Scientific Report of the 2015 Dietary Guidelines Advisory Committee. Part E.Section 2.1. Appendix E-2.1: Usual Intake Distributions, 2007-2010, by Age/Gender Groups. http://health.gov/dietaryguidelines/2015-BINDER/meeting2/docs/refMaterials/Usual_Intake_072013.pdf

^{3.} Dietary reference intakes for vitamin A, vitamin K, arsenic, boron, chromium, copper, iodine, iron, manganes (TRUNCATED), 2001, National Academy Press, Washington, D.C. http://www.nap.edu/read/10026/chapter/6#141

^{4.} Azaïs-Braesco V.Pascal G. Vitamin A in pregnancy: requirements and safety limit. Am J Clin Nutr. 2000;71:1325S-1333S.

^{5.} Stephens D, Jackson PL, Gutierrez Y. Subclinical vitamin A deficiency: a potentially unrecognized problem in the United States. Pediatr Nurs 1996;22:377–89.

reasoned examination of the evidence seems to say no. Also, what about the recent trend of vitamin D supplementation during pregnancy, sometimes as high as 5,000 IU/day; is supplementing this fat-soluble vitamin in isolation not without harm?²⁵

At the second Hohenheim Nutrition Conference in Germany in 2009, Dr. Georg Lietz reported that a high percentage of women in the UK are at risk for vitamin A deficiency; one of the chief causes is the fact that two common genetic variations (one or both were present in almost half of healthy women studied) greatly lessen the body's ability to convert beta-carotene into vitamin A. If a women carries both genes that reduce this conversion, she can have a one-third to two-third reduction in the ratio of retinyl palmitate (active vitamin A) to beta-carotene circulating in her blood.²⁷ Studies conducted by scientists with the USDA Agricultural Research Service confirm that 45 percent of individuals cannot achieve adequate vitamin A status from beta-carotene alone.28,29

In addition, the absorption of beta-carotene and other carotenoids can be quite unpredictable—food factors and other individual differences can significantly affect bioavailability as well as the conversion to retinol. While 70-90 percent of preformed vitamin A (retinol) is absorbed, even under ideal conditions only 3 percent or less of dietary carotenoids are assimilated. Foods also vary widely in the amount of carotenoids they contain due to varietal differences, ripeness, climate during cultivation, storage, processing and preparation methods. For example, carrots cooked in fat will have more absorbable carotenoids than raw carrots, and more if puréed.³⁰ Beta-carotene from supplements is much more readily absorbed than beta-carotene from food sources.

Dr. Lietz draws attention to a problem that is also common in the U.S.: the low consumption of vitamin A-rich foods. "Worryingly, younger women are at particular risk. The older generation tend to eat more eggs, milk and liver, which are naturally rich in vitamin A, whereas the health-conscious youngsters on low-fat diets are relying heavily on the beta-carotene form of the nutrient."²⁷ Of course this is now a common practice among elders, too.

Despite the likelihood that low intakes in women are much more common than high intakes, strong warnings to avoid preformed vitamin A during pregnancy from authoritative sources continue. According to the Embryo Project: "[e]xcess intake of vitamin A and retinoids by pregnant women often results [in] malformations to fetuses' skulls, faces, limbs, eyes, central nervous system." The use of "often" is erroneous and highly misleading, unless they are specifically referring to synthetic retinoids such as Accutane.^{31,32} Many other organizations and "experts" advise against eating liver, and any other food naturally high in vitamin A, such as cod liver oil.³³ Typically, couples planning to start a family fail to question this advice.

A young Chinese expectant mother once told me, "I actually like to eat liver but not while I am pregnant because it is not good for the baby."

VITAMIN A IN LIVER AND GIBLETS ²⁶												
FOOD DESCRIPTION	WEIGHT (G)	PORTION SIZE	RETINOL: RAE (µG)	VIT A (IU)								
Beef, New Zealand, liver, cooked, boiled	85	3.0 oz	17,862	59,500								
Lamb, New Zealand, liver, raw	113	4.0 oz	17,440	58,100								
Veal, liver, cooked, braised	80	1.0 slice	16,912	56,367								
Lamb, New Zealand, liver, cooked, soaked, fried	85	3.0 oz	16,891	56,300								
Veal, liver, cooked, pan-fried	67	1.0 slice	13,447	44,800								
Goose, liver, raw	94	1.0 liver	8,750	29,200								
Lamb, liver, cooked, pan-fried	85	3.0 oz	6,610	22,000								
Beef, liver, cooked, braised	68	1.0 slice	6,411	21,400								
Turkey, liver, all classes, cooked, simmered	53	1.0 liver	5,698	19,000								
Chicken, broilers or fryers, giblets, cooked, fried	145	1.0 cup	5,194	17,300								
Pork, fresh, liver, cooked, braised	85	3.0 oz	4,594	15,300								
Turkey, whole, giblets, cooked, simmered	95	1.0 giblets	4,388	14,600								
OSCAR MAYER, Braunschweiger Liver Sausage	85	3.0 oz	4,015	13,400								
Chicken, roasting, giblets, cooked, simmered	145	1.0 cup	3,542	11,800								
Veal, variety meats and by-products, liver, raw	28	1.0 oz	3,318	11,100								
Chicken, giblets, cooked, simmered	145	1.0 cup	2,539	8,460								
Liverwurst spread	55	0.25 cup	2,250	7,500								
Chicken, liver, all classes, cooked, pan-fried	44	1.0 liver	1889	6,300								

This is an unfortunate impression as liver was part of her family's traditional foodways. Another patient hoping to become pregnant said, "You don't want too much vitamin A in pregnancy because it can cause birth defects." But is this true? What historically was the practice of eating liver while pregnant? Was there a good reason to discontinue this practice? What are the risks, if any, of consuming preformed vitamin A?

Liver and cod liver oil, both high in vitamin A, are traditional foods valued by many indigenous cultures.34 It wasn't long ago that books advising mothers on what to eat during pregnancy placed liver on the top of the list, not only for vitamin A, but also vitamins B_1, B_2, B_3 B₁₂ and protein.³⁵ And with good reason. Liver is an excellent source of all these vitamins as well as choline and cholesterol; all are needed for successful reproduction. Cod liver oil was a mainstay of the diet for many families prior to the 1970s. In 1941, the UK instituted the Vitamin Welfare Scheme, which provided cod liver oil in black currant syrup to improve the nutrition of vulnerable groups including expectant mothers.36

The Erie, New York, Department of Health publication "Eating Right During Pregnancy" places liver and liver sausage first under "Be sure to include these foods rich in iron in your diet."³⁷ What this health department may not recognize is the fact that vitamins A and B₆ are also required to build red blood cells; "iron deficiency" anemia may never be completely resolved without supplying these two vitamins in adequate amounts.^{38,39} (B₁₂ and folate are required for red blood cells as well.) The American Pregnancy Association offers similar advice: "The U.S. RDA recommends about 27 mg [iron] per day. Lean beef, chicken, lamb, liver, turkey and veal are good options."⁴⁰

Certainly not all nutrition experts advise against the consumption of foods or supplements high in preformed vitamin A. According to Dr. Micozzi: "In fact, a lack of vitamin A, especially during pregnancy and in infancy, poses far greater risks. Deficiency of vitamin A in developing babies is known to cause birth defects, poor tooth enamel, a weakened immune system, and literally several hundred thousand cases of blindness per year worldwide. This is why developing countries safely give megadoses of vitamin A to newborns.³⁴¹

Likewise, highly respected medical organizations, including the March of Dimes⁴² and the Mayo Clinic,⁴³ do not list liver among the foods to limit or avoid completely during pregnancy. But rather than relying on expert opinions, let's consider what "far greater risks" may present themselves if a women enters pregnancy with low vitamin A status.

Vitamin A deficiency during pregnancy is known to increase the risk of maternal mortality and is associated with premature birth, intrauterine growth retardation, low birthweight, and *abruptio placentae*. Ideally the prevention of birth defects and other poor outcomes will begin before conception. An important key to prevention is the mother and father consuming a fully nourishing traditional diet. All major organ systems develop early in pregnancy, often before a women knows that she is pregnant.⁴⁴ Vitamin A signalling is essential during the development of several organs including eyes, brain, liver, kidneys and heart.^{45,46}

A personal story may be useful here. Functional nutrition expert Chris Kresser responded to a question on vitamins for pregnancy via his blog.47 A comment was posted by a mother who believes a lack of vitamin A in her own diet was the cause of her daughter's congenital kidney condition, vesicoureteral reflux (VUR). While no one can be sure of cause and effect, it is troubling that urinary tract defects are the most common class of defects in developed countries. According to this mother, "the pediatric urologist said he didn't know why kids get VUR but that it was probably hereditary since a child with the disorder has a 30 percent chance of having a sibling with the disorder as well. I think he's only halfway right-a mother who is malnourished for one pregnancy is likely to be malnourished for another, especially subsequent pregnancies from the first one where something went wrong developmentally."

In support of this mother's suspicion, a study of pregnant women with short birth intervals or multiple births showed that almost one-third of the women had plasma retinol levels below 1.4 μ mol/l corresponding to a Liver is an excellent source of all these vitamins as well as choline and cholesterol; all are needed for successful reproduction.

In fact, obstetricians are often the most clueless, which is why they often recommend the extremely poor quality prenatal vitamins that the drug companies make.

borderline deficiency.²¹ A short time period between pregnancies is a risk factor for a number of adverse outcomes including prematurity, low birth weight and neural tube defects. The leading hypothesis suggests that short intervals may be a marker for a deficiency in nutritional reserves needed to support normal fetal development. Maternal stores of critical micronutrients such as vitamins A, B₆, B₁₂, D₃, zinc and folate, decline during pregnancy and may take many months to rebound.⁴⁸

THE ROTHMAN STUDY

The evidence points to the very real problem of vitamin A insufficiency during pregnancy, an issue unlikely to be addressed by conventional medical authorities in the near future.¹ It was the Rothman study⁴⁹ that sealed the stigmatization against vitamin A during pregnancy; this study has been critically examined by Masterjohn who states that the preponderance of the evidence supports intakes of vitamin A between 20,000 and 25,000 IU during pregnancy to reduce the risk of birth defects.³

From the CDC's response to the Rothman study: "Daily consumption of a single multivitamin preparation containing folic acid and no more than the U.S. recommended daily allowance (RDA) of vitamin A for pregnant women (8000 IU) is beneficial. . . In 1987 the Centers for Disease Control, the Teratology Society, and the Council for Responsible Nutrition independently published recommendations designed to reduce pregnant women's exposure to high amounts of vitamin A from supplements."

"These recommendations were made because teratogenesis was assumed to occur at some undetermined level above 8000 IU of vitamin A per day and because pregnant women in the United States do not appear to benefit from additional vitamin A. The recommendations included limiting vitamin A in prenatal multivitamin preparations to 5000 to 8000 IU and the vitamin A content of all multivitamin preparations to 10,000 IU; suggesting that women should not take 10,000 IU or more of vitamin A without consulting a physician; using beta-carotene rather than vitamin A in supplements; and specifying the amounts of retinol, retinyl esters, and beta carotene on supplement labels."50

"[Rothman and team] report findings consistent with those of other studies suggesting that the consumption of less than 10,000 IU of vitamin A per day from vitamin supplements is safe." Specifically addressing Rothman's findings that greater than 10,000 IU is teratogenic: "[i]t would have been useful if Rothman ... had presented more detailed data on the amounts consumed by the women who took 10,000 IU or more of vitamin A per day and on the birth defects in their infants. Without further knowledge of this sort, [more detailed data on the women with the highest level of vitamin A consumption, very likely much more than 25,000 IU per day] we do not recommend using the dose-response curve in the study by Rothman . . . for the purpose of advising pregnant women who have consumed more than the RDA of vitamin A about the specific risk of malformation in their offspring. We cannot make good estimates of the teratogenicity of this vitamin at higher consumption levels unless more data become available."50

How did we go from recommendations in 1995 to limit intake to 8,000-10,000 IU and prenatal vitamins routinely containing 8,000 IU of retinol⁵¹, to today where many prenatal vitamins contain no preformed vitamin A (and often little or no beta-carotene), compounded by warnings against liver consumption? According to Dr. Dean Raffelock, "[the Rothman study] created a wave of fear in obstetricians and their pregnant patients that continues to this day. . . In fact, obstetricians are often the most clueless, which is why they often recommend the extremely poor quality prenatal vitamins that the drug companies make."⁵²

In 2014, Pennsylvania State University scientists stated: "[n]utrition experts know that vitamin A is necessary for prenatal growth and development. . . but the role of vitamin A remains unclear for the neonatal [newborn] period. Stores of vitamin A become depleted as the fetus reaches full term, to the point where newborns are nearly depleted of vitamin A. Neonates born in developing countries are likely to have even lower amounts of vitamin A in their bodies. [Newborns] are born with a low vitamin A level but a high demand for it.⁷⁵³

WIDESPREAD DEFICIENCY

Since the fetal liver is only able to store a small amount of vitamin A, it is generally accepted that almost all babies are born with marginal vitamin A deficiency. "Even term infants are relatively deficient in vitamin A at the time of birth compared to older children."⁵⁴ Premature infants have even lower liver stores of vitamin A at birth and their blood concentrations of retinol often remain low throughout their first year, putting them at risk for eye, chronic lung and gastrointestinal diseases.⁵⁵ Vitamin A supplementation in pre-term infants reduces mortality and oxygen requirement and is considered a promising intervention for bronchopulmonary dysplasia prevention, a lung impairment common to preemies.⁵⁶

Other scientists have expressed their concerns. "The fetus begins accumulating vitamin A during the third trimester and needs several months of sufficient intake after birth to build up an adequate store. The composition of breast milk is influenced by the vitamin A status of the mother during the last trimester. "[T]he main consequence of a poor vitamin A supply during pregnancy is a low vitamin A status at birth and in the next few months."¹

The vitamin A content in the breast milk of mothers who deliver prematurely is often closer to mature breast milk (which comes in three to four weeks after delivery). Both contain one-tenth to one-half the amount of vitamin A in the earliest milk, colostrum. Is there a connection between a deficiency of vitamin A in a premature infant and the lower content of the mother's milk—perhaps an indication that the mother herself was deficient in vitamin A?

These findings pose serious questions. The first is, why are newborns (even in developed countries) born with low or depleted stores of vitamin A? Secondly, since experts know vitamin A is necessary, why are there so many warnings against it and why don't prenatal vitamins contain it to any degree? Finally, if the mother's vitamin A intake has little effect on her newborn's vitamin A levels, why do newborns in developing countries have even lower amounts in their bodies compared to the developed world? One surmises that the widespread prevalence of maternal vitamin A deficiency in these countries may be a primary reason. Although stores of retinol in the livers of human fetuses have been found to be lower than those of adults, significant correlations have been measured between maternal serum retinol, fetal liver retinol and fetal growth.⁵⁷

In adults, vitamin A stores are used up daily, at the rate of about 0.5 percent per day. This could occur more rapidly for those with lower liver stores, which depend on dietary intake.⁵⁸ Vitamin A depletion could be accelerated during times of higher demand, such as infection or periods of rapid growth, which is why children's dietary requirements are almost the same as adults. With little or no preformed vitamin A intake during a full-term pregnancy of about two hundred seventy days, an almost total reduction in liver stores after two hundred days is theoretically possible.

Does conventional obstetrical care ever recommend vitamin A for "healthy" women?

According to a medical nutrition textbook, "because of the potential

teratogenic effects from exposure to excess preformed vitamin A in the first trimester, vitamin A supplementation in pregnant women who are not deficient is not recommended." Yet, these same authors add "women with low vitamin A intake or reduced liver stores should increase their intake throughout pregnancy to ensure adequate stores are available for rapid fetal growth in late gestation."²²

ASSESSING VITAMIN A STATUS

Assessing vitamin A status is difficult.¹ Measuring liver reserves using a biopsy is considered the gold standard but this procedure is highly invasive and thus very rarely used. Clinical signs like poor dark adaptation, xerophthalmia (dry eyes), hyperkeratosis (hard bumps on skin), or even acne in adult women can yield clues, but the absence of these signs cannot rule out deficiencies.⁵⁹ Night blindness is not likely to occur until liver stores are dangerously low.

Assessing intake not only requires detailed dietary records over several days (especially since people don't eat liver very often) but also information on whether a woman is a good or poor converter of beta-carotene into retinol. Liver stores can be estimated using the relative dose response test (RDR or MRDR): blood is drawn, a dose of vitamin A is given, then the change in serum retinol is measured five hours later; an increase of 20 percent or more usually indicates deficient liver stores of vitamin A. This test has been used for population assessment but appears to be uncommon in clinical settings.⁵⁹

Measuring blood levels of vitamin A is the more common way of determining vitamin A status. In healthy adults, the plasma vitamin A concentration ranges from 20 to 80 μ g/L.⁶⁰ However, blood levels can remain normal even when liver, lungs and other organ stores are low. Blood levels drop below the normal level of 20 μ g/L only after liver stores are exceedingly low, so marginal liver stores may not be detected. A result of 10 μ g/L indicates a severe deficiency and depleted liver stores.⁶¹

To determine either deficiency or excess states, measure both serum retinol (or serum vitamin A) and serum retinyl esters (serum A palmitate); serum retinol should ideally be in the middle or upper half of the reference range and not less than 30 μ g/L, and the serum retinyl esters should not be above 10 percent of the sum of the retinol and retinyl esters. Measuring fasting retinyl esters is done to check whether the capacity of the liver to store vitamin A has been exceeded, a rare but possible occurrence.⁶²

BALANCE WITH VITAMINS D AND K,

Supplementing with vitamin D is a common practice among obstetricians, often without the benefit of blood testing to determine what level of supplementation, if any, is optimal. More astute practitioners know that supplementing with vitamin D, especially at levels of 5,000 IU per day (which I have seen in pregnant patients) is not advisable unless attention is paid to ensuring vitamin A intake is optimal. Too much vitamin D can deplete vitamin A. Likewise, intake of vitamins A and D require balance with vitamin K_2 . Poultry liver, which contains all three fatsoluble vitamins—A, D and K_2 —is an ideal source of these synergistic nutrients.

OTHER CONSIDERATIONS

Iron and zinc deficiency can affect the conversion to vitamin A. Iron is needed for the intestinal conversion of carotenoids to retinal; zinc is required for the subsequent conversion from retinal to retinol. Iron deficiency is not uncommon during pregnancy, and zinc status may be marginal especially in women with more vegetarian-type diets or higher needs.⁶³ Zinc deficiency can exacerbate low vitamin A intakes because zinc is needed in the synthesis and secretion of retinol binding protein, which mobilizes vitamin A from the liver and transports it into circulation.⁶⁴ Liver is an excellent source of both nutrients.

Iron deficiency anemia during pregnancy is typically treated with higher doses of iron. Yet increased intakes of vitamins A and B₆ may be required to resolve the anemia, with or without supplemental iron depending on need. Vitamin A deficiency seems to impair mobilization of iron from body stores; therefore vitamin A supplementation improves hemoglobin concentration.⁶⁴ Serum retinol levels below 30 mcg/dL have been associated with "vitamin A-responsive" anemia. Since blood levels of retinol-binding protein change with pregnancy, the serum retinol test can yield inaccurate results.²² Be aware that routine iron supplementation is not advisable during pregnancy, since an increased iron intake in women with an already adequate iron status may have adverse effects. Assessment of serum ferritin at the onset of pregnancy will help determine whether more iron or iron-rich foods is indicated.

CONCLUSION

Clearly, vitamin A plays a vital role in pregnancy nutrition and the development of a healthy baby. It has been called "the concertmaster of fetal development"⁶⁵ because it is needed to "achieve harmonious tissue organization."¹

If still uncertain whether consuming additional preformed vitamin A would be beneficial (either from cod or fish liver oil, other types of supplements, or from foods like liver), discuss this with your obstetrical care provider. In any case, $3000 \ \mu g$ RAE (10,000 IU) per day from all sources during pregnancy appears to be well within a safe upper limit according to most data; the Weston A. Price Foundation recommends at

V11/ (IVI		
BRAND	VITAMIN A	VITAMIN D
Vitalfol-One*	1100 IU as beta-carotene	1000 IU
	(label says 14 percent of daily value in preg	(nancy)
Prenaissance DHA*	0 IU	400 IU
Prenate DHA*	0 IU	400 IU
Vitafusion Prenatal	4000 IU as retinyl palmitate	400 IU
	(label says 50 percent of DV for pregnancy))
Mega Food Baby and Me	5000 as mixed carotenoids	600 IU
Garden of Life Raw	5000 as beta-carotene	1400 IU
Thorne Basic Prenatal*	5000 IU	1000 IU
	(3000 from beta-carotene and	
	2000 as retinyl palmitate)	
Rainbow Light Just Once	4000 IU (as retinyl palmitate, beta carotene)	400 IU
Ŭ		
* Procerintian brands		

VITAMINS A AND D IN COMMON PRENATAL VITAMINS

* Prescription brands.

According to the FDA supplement labeling guide for industry, the daily value of vitamin A for pregnant and lactating women continues to be 8,000 IU (www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/DietarySupplements/ucm070620.htm. Last updated 5/27/2015).

least 20,000 IU during pregnancy from foods such as liver or high vitamin cod liver oil along with 2,000 IU vitamin D (if sun exposure is limited) and vitamin K_2 from aged cheese, animal fats and fermented foods.

If you choose to avoid this or any amount of preformed vitamin A during pregnancy, it is advisable to build up your own liver stores by consuming more vitamin A-rich foods during the six to twelve months prior to conception. A woman considering pregnancy or already pregnant can also discuss her vitamin A needs with her obstetrical care provider and see whether further evaluation is warranted.²² Keep in mind that most obstetricians will not be aware of the controversy surrounding the limits on vitamin A—sharing this article with them could help increase their awareness.

The controversial Rothman study concluded that the risk of birth defects was more frequent when women supplemented with high dose vitamin A before the seventh week of gestation. Be aware that some women in this study were likely taking in more than 25,000 IU per day from supplements and/or fortified foods and that these findings have been criticized by other researchers who have found no such correlation.^{3,66} Although the fetus is undergoing rapid developmental change during the first trimester of pregnancy, nutrient needs generally do not significantly increase above the nonpregnant state in this early stage.⁶⁷ Yet, without preformed vitamin A, it is possible for liver stores to become relatively depleted in less than seven months. The World Health Organization recommends vitamin A supplementation of 10,000 IU per day after day sixty of gestation for women who are deficient. Ensuring adequate preformed vitamin A intake in the second or third trimester is beneficial for these reasons, and may reduce complications at birth, especially if a pre-term delivery is anticipated.²²

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In Pursuit of Healthy Fertility Via Fertility Awareness

By Victoria Braun

wise man once said: Before you can hope to change things, you must first understand the way things are. Since beginning almost forty years ago as a fertility awareness or natural family planning (NFP) instructor, as well as consulting with thousands of women for a large NFP provider over the past thirteen years, it has become increasingly apparent that the "health" of women's and men's fertility has been compromised.

Couples are concerned because they are unable to have babies or they become frustrated when practicing NFP to avoid a pregnancy, because their fertility cycles are so irregular and the times of abstinence are inordinately long. It is correspondingly commonplace for women to suffer from premenstrual syndrome (PMS), polycystic ovarian syndrome (PCOS), ovarian cysts, heavy periods, endometriosis, menstrual cramps, acne and absence of periods. Men, too, share in this burden of fertility issues. Even a cursory review of comments taken from the scientific literature supports this observation: Healthy fertility is at a premium, it seems; more and more couples are faced with the sadness and concern that comes with the inability to conceive.

- "Polycystic Ovarian Syndrome is the most common endocrine disorder among women of reproductive age."¹
- "PCOS has been known to be associated with irregular periods, infertility, increased pregnancy complications . . ."²
- "Endometriosis is a common gynecological condition affecting 10-15% of the female population."³
- "Endometriosis is a chronic inflammatory disease, which is especially found in women with subfertility problems with an incidence of up to 30%."⁴
- "The prevalence of endometriosis was 47% (104/221 women) in infertile women with normal ovulation and normospermic (normal sperm) partners."⁵
- "An estimated 7 million American couples per year seek infertility care in the United States. A male factor contributes to 50% of cases. . ."⁶

It stands to reason that infertility in men and women nowadays is the result of our fastpaced, stressful culture, highly processed foods with inadequate nutrition and the long-term use of the pill for both birth control purposes and/or for most of those familiar, but abnormal fertility-related problems that cause women so much anxiety. Consider what direct damage the pill can do to women's fertility: by changing the nature of the mucus-producing cells located in the cervix, thus affecting the proper type of mucus production critical for sperm migration and the ability to conceive,⁷ by depleting women's bodies of several B vitamins (riboflavin, B₆, $\boldsymbol{B}_{\!\!\!\!\!12}$ and folate), vitamin E and Coenzyme $\boldsymbol{Q}_{\!\!\!10}^{},^{\!\!\!8}$ vitamin C, magnesium and zinc,9 all of which are necessary for healthy fertility, and by damaging the beneficial gut flora.¹⁰ These adverse changes do not include the well-known myriad of mild-to-severe health side effects such as a 40 percent increase in breast cancer in women who have not had a full-term pregnancy,¹¹ stroke or even death. Men's fertility is also affected by

their exposure to toxic elements in the environment, including cell phone radiation.^{12,13}

Healthy fertility is at a premium, it seems; more and more couples are faced with the sadness and concern that comes with the inability to conceive.

Indeed, infertility is widespread. Nonetheless, rather than leave couples stranded with their fertility concerns, this article will provide an overview of natural strategies to address these challenges, strategies that are consistent with the work of Weston A. Price, the Weston A. Price Foundation and my own experience. In order to accomplish this, however, it is essential to understand what healthy fertility is, so that readers will be better able to judge what constitutes unhealthy fertility. So let's start with some fundamentals of human fertility and the techniques by which couples can monitor their own fertility.

HUMAN FERTILITY

Anyone who is somewhat familiar with the inner workings of the human reproductive system must stand in awe of its intricacy and complexity, undoubtedly due to the Creator's perfect design. From the time of puberty to old age, for example, a man's reproductive system is capable of producing sperm (part of this perfect design), which means he is essentially fertile for many decades. On the other hand, the Creator's design of a woman's fertility manifests as waxing and waning cycles beginning at menarche (the onset of menses). A woman is born with all the immature ova or eggs (inside her ovaries) she will ever have, quite the opposite of a man's capacity to produce sperm continuously from puberty onward.

THE FEMALE CYCLE

Approximately once per month, one (or more) ova develop inside specialized sacs called follicles in the ovaries (see Figure 1). During this maturation process the follicle(s) also produces estrogen—the female hormone responsible for building up a nutrient-rich uterine 'bed' or lining for a possible fertilized egg to implant and for activating specialized cells in the cervical canal to produce mucus—a fluid necessary for promoting fertility. As time passes and the release of the egg (ovulation) becomes imminent, increasing estrogen production liquefies the mucus, making it more hospitable to sperm life.

To know whether ovulation is likely to occur, women observe a changing, developing pattern of mucus culminating in pronounced slippery or lubricative or watery, runny (very wet) sensations at the vulva, detected while moving about throughout the day or when wiping at bathroom visits. ("Fertility Cycle" example with mucus descriptions, page 33.) Women may also notice visible strings or eggwhite discharge during this time-another sign of higher estrogen production. The presence of this type of visible discharge is not, of itself, indicative of impending ovulation unless it appears as part of a changing pattern of mucus sensations over several days. Note in the same chart how the pattern of sensations and visible mucus changes from moist, thicker and sticky (less fertile) to wet, slippery and stringy (more fertile).

When the egg ruptures out of the ovary (ovulation), finger-like projections on the Fallopian tube capture the egg, permitting it to journey toward the uterus. If sperm are present, conception can occur in the outer one-third of the Fallopian tube, but only within twelve to twenty-four hours, as the egg survives for only twelve to twenty-four hours at most. At this same time a dramatic shift in hormone production occurs. The now-empty follicle (referred to as a corpus luteum) initiates a surge in progesterone production (the second important female hormone), which counteracts the effects caused by rising estrogen. Progesterone activates special areas in the vaginal walls (the Pockets of Shaw) that cause a dramatic drying-up sensation at the vulva and also turns off any further follicular development (and release of additional eggs) in that cycle. The changing pattern of mucus leading up to slippery sensations, followed by a dramatic drying-up sensation confirms the ovulatory event. Another substantial confirmation of ovulation is progesterone's ability to warm the body, causing a rise in a woman's waking (basal) temperature of roughly 0.4°F or more.

By monitoring the mucus and temperature signs, couples can then interpret these observations to apply rules for avoiding pregnancy that mirror the effectiveness the pill delivers, but without any health risks. In addition to knowledge of the fertile and infertile windows during the cycle, simple daily observations of the mucus and temperature signs provide an abundance of valuable information such as early detection of pregnancy, accurate due date calculations, insufficient thyroid function, progesterone deficiency, inadequate mucus quality and medication effects. Fertility awareness becomes a special tool to open up conversations between the couple that otherwise might not take place.



Wise Traditions

The overall level of the temperature pattern may indicate the strength of thyroid function. Fertility awareness becomes a special tool to open up conversations between the couple that otherwise might not take place—conversations like: "Is the time right for us to try to conceive?"; "We discussed before that we have an important reason to avoid pregnancy for the time being; we should avoid sexual relations during your fertile time. Do you still agree with this decision?"; "Honey, I noticed your cycle this time shows signs of progesterone deficiency. No wonder your PMS has skyrocketed. Let's take a look at what can be done naturally to remedy this."

These outward fertility signs have been known for over fifty years although refinements in the last thirty to forty years have improved the efficacy of modern NFP. When couples consider using NFP, they should be aware that modern NFP is a far-cry from the older calendar rhythm-the Model T of natural methods for family planning. Calendar rhythm uses previous historical cycle length data to "predict" the fertile and infertile times in future cycles. Quite obviously, this Model T method of family planning does not take into account the woman's current fertility signs; therefore, it is highly ineffective for women who have variable cycle lengths. Couples, too, should be aware that many physicians lack knowledge in distinguishing the Model T version from the modern NFP version.

Both the mucus and temperature signs are important indicators for couples who wish to practice a natural method of family planning. To recognize their fertile and infertile times some NFP methods employ the mucus and temperature signs together (called sympto-thermal method) while others focus solely on one of these signs, typically the mucus sign (called the mucus-only method). A third sign, changes in the cervix, can also be monitored.

A HEALTHY FERTILITY CYCLE

To appreciate what a healthy fertility cycle is like, take note of the following example, although others exist. (Fertility Cycle, page 33) On this chart a non-pregnant woman recorded her daily basal (waking) temperatures and brief descriptions of her mucus sensations (what she felt or sensed) and mucus characteristics (what she saw). A "P" was recorded on the last day of her slippery or very wet mucus sensations to denote Peak Day—most frequently the day of ovulation.

She also recorded her days of menstrual flow, the marker used to determine the start of a new cycle, and documented the length of her luteal phase (between ovulation and the next menstrual period, fourteen days for this cycle)-the number of days of higher temperatures (sympto-thermal NFP method)¹⁴ before the return of her next menstrual period. Mucus-Only NFP Methods determine luteal phase length by counting days after Peak Day before the return of the menstrual period.15 In this example both ways yield the same result; in other examples, they may not. Healthy luteal phases can be anywhere from twelve to sixteen days in length. In addition, the strength of the luteal phase may play a role in establishing the health of the cycle itself. "Strength" refers to whether the temperatures after Peak Day reach at least 0.4°F above the previous level and remain that high or higher until the end of the cycle (when menstruation returns). The temperatures rose around Peak Day and remained high for the duration of the cycle until menses returned. Temperatures under the influence of estrogen, during the first half of the cycle, are lower. Further, the overall level of the temperature pattern may indicate the strength of thyroid function; around 97.8° to 98.2° prior to ovulation and above 98.2° after ovulation are good. This cycle illustrates a healthy thyroid function.

Lastly, the overall pattern of mucus descriptions demonstrates that ovulation will occur (and has, in fact, occurred) as the woman observed several days of a changing pattern of mucus ending in slippery or very wet sensations, followed by a dramatic change in her sensation. Consider the fact that these descriptions of mucus communicate exactly what the woman observed. Had she recorded her mucus in a letter format to denote, for instance: "m" for damp, moist, or sticky sensations; "t" for tacky; "w" for wet; "sl" for slippery; "s" for stretchy, the exact pattern of mucus would have been more difficult to ascertain. Thus, descriptions enable the identification of an individual pattern. Patterns can be fertile or infertile, depending on the type, as not all vaginal discharges are signs

of fertility. Proper instruction assists women in distinguishing infertile discharge patterns from mucus patterns that are signs of fertility. See the "Fascinating Fertility Facts" sidebar, page 36, for additional information.

CHARACTERISTICS OF AN UNHEALTHY FERTILITY CYCLE

Over the past twenty years I have noticed a striking increase in one or more of the following cycle traits I consider to be unhealthy:

• Poor quality mucus patterns, that is a limited number of days of mucus leading up to Peak Day; lack of a changing, developing pattern which would indicate a lack of impending ovulation.

- Long cycles of more than thirty-five to forty days.
- Short luteal phases of ten days or less—a sign of progesterone inadequacy, which means that the follicle didn't mature correctly; this can cause miscarriage or inability to sustain pregnancy.
- Overall low basal temperatures—indicator for less-than-ideal thyroid function; low temperatures like 97.4° or below prior to Peak Day (ovulation) could cause problems with conception in some women, while in others it may not.
- Pre- and post-menstrual spotting—one or more days of light brown or light red spotting before the actual menstrual flow begins, or after the flow has ended.
- Erratic luteal phase temperatures that do not remain consistently high, but dip down to or below pre-ovulatory levels.

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CYCLE ISSUE	INITIAL STEPS TO CONSIDER
POOR QUALITY MUCUS	 Eat more vitamin A- and cholesterol-rich foods (e.g. cod liver oil, organ meats, egg yolks, butter, shellfish, fish eggs); Eliminate soy-containing foods; Are you premenopausal? If yes, this may be 'normal' as your fertility wanes.
LONG CYCLES	 Check basal temps; thyroid function could be low; Are you too stressed? Are you eating a nutrient-dense diet? Check lighting in bedroom—should be dark! Are you premenopausal? If yes, this may be 'normal' as your fertility wanes. Eliminate coffee.
SHORT LUTEAL PHASES	 Eat more vitamin A- and cholesterol-rich foods; Review adrenal stress; Have your cycles recently returned after childbirth? (Note: first few cycles may have shorter-than-normal luteal phasesnormal length should return within a few cycles.)
LOW BASAL TEMPERATURES	 Possible thyroid issue; Eliminate all soy foods; Eat more red meats; Check temp-taking protocol; don't open mouth while taking temps; Check stress which can depress thyroid function and decrease temps.
PRE- AND POST-MENSTRUAL SPOTTING	 Increase vitamin A- and cholesterol-rich foods in order to make more progesterone; See general suggestions below.
ERRATIC LUTEAL PHASE TEMPERATURES	 Review temperature taking protocol; Increase vitamin A- and cholesterol-rich foods in order to make more progesterone; Are you taking your temperatures at significantly different times? Are you premenopausal? If yes, this may be 'normal' as fewer & older follicles are less able to produce adequate progesterone.
GENERAL SUG	GESTIONS TO CONSIDER FOR ALL CYCLE ISSUES

- Eliminate drinking chlorinated and fluoridated water; don't shower or bathe in chlorinated water
- Consider detoxifying body (e.g. foot or tub baths, juicing, beet kvass)
- Eliminate all soy-containing foods, except for occasional small amounts of miso, tempeh
- Keep refined sweeteners to an absolute minimum; avoid all artificial sweeteners
- Discontinue consuming any processed vegetable oils (e.g. canola, corn, soy, safflower, sunflower); cook only with animal fats (e.g. pastured lard, tallow, ghee, duck fat, schmaltz, butter), or coconut or palm oil
- Minimize or eliminate sources of toxicity at home or work (e.g. personal care, cosmetic & laundry products, foods (especially animal foods) that are conventionally grown, pest/garden/lawn products, mold, outgassing from paints, adhesives, plastics, etc.).
- Possible leaky gut which can wreak havoc with hormones
- For too short, too long, or irregular cycles, consider eliminating coffee as well

Likewise, other personal health issues directly related to hormonal imbalances have increased: PMS, PCOS, infertility, postpartum depression, anxiety, adrenal stress, under or overactive thyroid and others. No wonder women are concerned! Their overall lifestyle is adversely affected, and their ability to conceive or sustain a pregnancy is compromised.

IN PURSUIT OF

HEALTHY FERTILITY NATURALLY

In addition to long-term use of the pill, which has deleterious effects on women's hormonal balance, gut flora and well-being, other modern factors that contribute to unhealthy cycles include inadequate nutrition and toxicity.

Nutritional deficiency results from inadequate intake of nutrient-dense foods containing the essential fertility vitamins (A, D, E, K) and many important minerals such as magnesium, calcium, iodine and others. In his travels around the globe Dr. Weston Price found that primitive (not ignorant) peoples knew this maxim well. They knew it so well that these cultures required a special period of eating "sacred" foods high in nutrients, including organ meats, certain types of seafood, fish eggs, pastured butter, cream and animal fats, before conceiving in order to ensure perfect babies. These foods are high in cholesterol and vitamin A, both necessary for production of sex hormones, conception and pregnancy. The important work of creating healthy babies was not left to chance, or relegated to synthetic vitamins and minerals in a prenatal pill.

Couples today face the added complications of a plethora of foods that are rancid, processed, prefabricated and extruded, laden with additives, preservatives and synthetic vitamins, full of refined sweeteners (or artificial sweeteners) and caffeine, and carrying GMOs, antibiotics and chemical sprays.

But nutritional deficiency today can also be caused by a person's inability to digest or assimilate even nutrient-dense foods. Nutrientdense food intake does not necessarily equal nutrient-dense assimilation. Consequently, my consultation strategy encourages people who display digestive symptoms to adopt an eating program that addresses this first. For example, allergies or sensitivities to dairy or gluten affect which foods to consume; yet to obtain nutrients present in those types of foods, one must consume alternative foods that contain these nutrients. Foods such as bone broth can be a great alternative, although bone broth cannot compare with milk products as a source of calcium.

Tackling both nutritional deficiencies and toxicity may seem overwhelming and impossible. Realize though that the human body has an enormous capacity to heal if given the right tools. Our bodies have highly developed systems for detoxification and regeneration. Many couples have restored their cycles and fertility through natural means. With regard to toxicity, becoming aware of toxins, and taking actions to minimize or avoid exposure to them constitute important first steps.

To become aware of the types of toxins in our environment, Dr. Mark Schauss' article "Toxicity and Chronic Illness" in the Spring 2015 issue of *Wise Traditions* is a must-read, or re-read. Around your house the most important culprits are likely to be phthalates, xylene and Bisphenol-A (BPA) with its sidekicks—BPS or BPF. Phthalates are found in plastics, personal care products and air fresheners (such as plug-in types and dryer sheets) that use heat to release the aroma. They are notorious for depressing testosterone production and have been implicated in miscarriages and birth defects.¹⁶

Xylene is a petroleum-derived chemical found in multiple places: air fresheners, adhesives in carpets, nail polishes and cigarette smoke.17 Well-known as a carcinogen and nerve toxin, it also has a reputation for increasing miscarriages and birth defects. BPA is found in hard plastic bottles, linings in canned foods and store receipts.18 It too is quite ubiquitous in our homes and is easily absorbed through the skin and inhaled. Note that many companies now claim their products are BPA-free. Don't be fooled, however, because these companies are probably replacing BPA with BPS or BPF, with almost no testing. These substitute chemicals could be just as toxic, or possibly more so. The best advice is avoidance. Discover where to find toxins in household products and safe alternatives from the Environmental Working

Couples today face the added complications of a plethora of foods that are rancid. processed, prefabricated and extruded, laden with additives, preservatives and synthetic vitamins, full of refined sweeteners (or artificial sweeteners) and caffeine, and carrying GMOs, antibiotics and chemical sprays.

FASCINATING FERTILITY FACTS

- It's normal for women in the transition to menopause and young teens to have variable cycle lengths. This is not a disease and women, young teens included, should not be go on the birth control pill for this normal variability.
- On rare occasions women can ovulate but *not* show a temperature shift on the fertility chart.
- Occasionally women who do not ovulate will show a temperature shift on their charts. This seems to be due to a phenomenon known as a luteinized unruptured follicle (LUF), whereby a developing follicle begins releasing progesterone but does not release an egg.
- Many women can feel or sense the start of mucus before actually seeing it. This is caused by the ability of nerve receptors on the inner labia (at the vulva) to detect the presence of much smaller quantities of mucus (up to 8 times less) than what it takes to see mucus.
- Blind women can practice NFP as successfully as sighted women; they focus on their sensations, which provides sufficient information for interpreting their mucus sign.
- Infertile patterns of discharge may occur in healthy fertility cycles of less than thirty-five days, in long cycles, and in transition times (that is, postpartum and premenopause) and are considered normal. There are multiple types of infertile patterns. This knowledge is available, thanks to the late Professor James Brown (Australia).
- Couples using a sympto-thermal method of NFP are not taught about all the possible infertile patterns of discharge that could occur. If these couples have any of these infertile patterns and wish to avoid pregnancy, they will experience unnecessary extra abstinence.
- A woman's mucus pattern directly correlates to her hormonal pattern. Observing mucus therefore enables a woman to understand what her hormones are doing, thanks to Professor Brown.
- Professor Brown also developed a highly sensitive and accurate home ovarian monitor that measures urinary metabolites of estrogen and progesterone to detect the onset and end of the fertile times. The only drawbacks are the cost of the monitor and the testing protocol. Look for refinements with a more user-friendly protocol in the future.
- Not all bleeding episodes are menstruations. Normal bleeding episodes can be divided into the following categories:
 - Menstruation Implantation bleed Withdrawal bleed Breakthrough bleed
- A pregnant woman can accurately predict her baby's due date. Only one catch: she needs to observe her fertility signs!
- Dr. Erik Odeblad of Sweden has identified and named the major types and subtypes of cervical mucus produced in the cervix and has discovered their functions. He predicts that more will come to light. Also to his credit are the expanded explanations of the workings of the Pockets of Shaw in the vaginal walls, and the response of the vaginal epithelial cells to sex hormones. Dr. Odeblad has discovered that not all mucus is a sign of fertility, which supports part of Professor Brown's discovery of different infertile patterns of discharge.
- In premenopause transition charts I have occasionally observed no temperature rise until six days after Peak Day, which is a sign that those cycles are infertile.
Group (ewg.org). Another good resource is *Dy*ing to Look Good—The Disturbing Truth About What's Really in Your Cosmetics, Toiletries and Personal Care Products...and What You Can Do About It by Christine Hoza Farlow, DC (dyingtolookgood.com).

With toxicity as an additional piece to the mystery behind fertility issues, women (or couples) have an opportunity to accelerate their healing by integrating gentle detoxification strategies. Kim Schuette, CN, explained many of these in detail in *Wise Traditions* (Spring 2015). Personally, I have found detox foot (or tub) baths, alternately using plain Epsom salts, baking soda and organic apple cider vinegar, as well as consuming beet kvass, to fit my lifestyle best.

Next, seek out training in fertility awareness so you can assess your own fertility status. There are many NFP providers and NFP apps available. However, only a few such providers are knowledgeable of all possible patterns of fertility and infertility. The authentic Billings Ovulation Method (BOMA)—a Mucus-Only Method—(boma-usa.com) is one of those providers. My practice also incorporates this information (wisefertilitychoices.com).

NFP apps abound and many couples like

to use them for tracking and interpreting their fertility signs. Most are easy to use if women have regular cycles; longer cycles or different patterns of discharge typically are not recognized and interpreted. Thus couples having these patterns who wish to avoid pregnancy will have longer periods of abstinence. Usually, women need first to have NFP instruction before successfully utilizing NFP apps.

A final step would be to implement a plan that's right for you. Engaging the assistance of a well-trained and experienced consultant in fertility awareness and nutrition may be worthwhile.

TESTIMONIALS

When Kaylene Reinker, now Gleason, from California contacted me with a diagnosis of PCOS and her doctor's recommendation to take a drug for insulin resistance, she was adamant not to travel down the drug path. She wanted to heal herself naturally. (See her testimonial below.)

Kaylene was able to reverse her PCOS by implementing a modification of a gut-healing program that fit her lifestyle—a program she liked and could follow. Conditions like PCOS take a long time to reverse; one to two years is

KAYLENE'S STORY

At age twenty-six, I was diagnosed with PCOS after my doctor did some blood tests. I was relieved to have an explanation for all the symptoms I was experiencing. These symptoms included long and irregular cycles, weight gain (a total of forty pounds, which put me at an overweight BMI), hirsutism and acne. I was also concerned about low thyroid function because I had low basal temperatures, my fingernails peeled and my heels cracked. My doctor said that weight loss was the best thing I could do, so I could try to diet and exercise, but she also wanted to put me on medication (Metformin and an anti-bacterial face wash) right away. I had already made changes to my diet and exercise regimen, and it didn't help, but I did not want to go on meds which I would potentially have to take for the rest of my life.

I contacted Vicki Braun, explained my situation, and asked for help. After asking me a few more background questions, Vicki recommended I do a program that would heal my gut and restore my hormone balance, thus reversing PCOS. I also started to change my cleaning and personal hygiene products to more natural or organic ones. At first I was very strict on the diet. I started losing weight and my symptoms began to disappear. After four months, my cycles became regular, and my acne was less severe. I became less strict on the diet, following the protocols, but also started adding some foods that were not recommended. My symptoms continued to reverse. While checking in with Vicki, she advised me to supplement iodine to help with a possible thyroid issue. My nails stopped peeling, my heels stopped cracking, and my basal temps rose slightly. I became even more lax with the diet. I still limited my refined carbs and sugars, but only followed the probiotic protocol of the gut-healing program. A year after I started this modified program, all my symptoms but hirsutism were gone, and I was back to a healthy BMI from losing thirty pounds. I followed up with my doctor. She was very impressed with my progress and said I was the first person in fifteen years of her practice to reverse PCOS without medication. The follow-up blood test results came back normal. The difference in my health today from a year ago is incredible. I feel like I am once again in control of my health and body.

A

comprehensive approach to reversing the trend of cycle problems or fertility issues is often plausible and workable, thus allowing for a healthy fertility comeback. not uncommon. So I would expect Kaylene to see further improvements if she continues with her present program.

As confirmed by NFP instructors and NFP users I have worked with, the practice of NFP can also be highly satisfactory with excellent fertility awareness instruction along with adequate nutrition advice.

Others have achieved pregnancy after years of infertilty, or succeeded in avoiding pregnancy with minimal abstinence.

HEALTHY FERTILITY

A comprehensive approach to reversing the trend of cycle problems or fertility issues is often plausible and workable, thus allowing for a healthy fertility comeback. The goal of course during the fertile years is for healthy sperm to be capable of fertilizing healthy mature eggs in couples desirous of pregnancy, resulting in a healthy pregnancy and baby. Or if pregnancy is

not desired, the goal is for the woman's fertility cycles to be interpretable (with proper instruction) while not causing interference with her lifestyle. Hopefully this article will prompt those who desire healthy fertility to take steps to pursue it!

Vicki Braun is a master fertility awareness consultant, trained and certified in four different methods of NFP; she is also a certified GAPS practitioner. She has a BS degree in biology and chemistry and an MS degree in microbiology. She writes and speaks on NFP, balancing hormones and healing the gut. She has taught NFP for over thirty years, and has consulted with thousands of women. She combines NFP and her knowledge of hormonal imbalances with a focus on gut health in order to help people restore hormonal balance through diet and lifestyle changes. Visit her website: wisefertilitychoices.com or write to her at: wisechoices50@gmail.com.

Disclaimer: This article does not provide sufficient instruction or rules in order to use fertility awareness to avoid pregnancy.

TESTIMONIALS ON FERTILITY AWARENESS

From a Couple-to-Couple League (CCL) NFP teacher, wife and mother: "For the first time in my life I know what it feels like to have more normal menstruations! I want to thank you for your advice, prayers and help! It has been a blessing! I wish more women knew about this so they could give it a try before accepting [any ablation or hysterectomy] surgery."

From S. G., wife and mother: "I really appreciated our conversation—you spent a lot of time with me on the phone. I've made an effort to incorporate your dietary suggestions, and I know that helped a lot. I've been meaning to email you to tell you that I'm pregnant! I am twenty-three weeks along and besides normal tiredness, the baby and I are doing great! Thank you so much for all the amazing work you do!"

From V. J, NFP teacher: "It's been so marvelous being able to go to you for this. When my client came to me at over fifty days past getting off the pill with no ovulation, I had no idea what to do except contact you. And I've learned a great deal through this process. What a gift you have been for me and my client and so many other people."

From E. B., wife and mother: "That kind [of discharge pattern] is not discussed in *The Art of Natural Family Planning—Tran*sitions Student Guide, from the Couple-to-Couple League, and because of the phone conversation I had with Vicki, my husband and I were able to avoid three months of unnecessary abstinence. . . . We are extremely grateful for the phone counseling we received!"

From P. H., in premenopause transition: "In February of 2011 I called Vicki for assistance in interpreting my premenopausal charts. She helped decipher my mucus discharge pattern, which turned out to be an infertile pattern not discussed in the book I had. Because of her assistance my husband and I were able to resume marital relations during days of infertility (determined after first establishing this different type of infertile pattern). This saved us from abstaining for several months, and I was successful at avoiding pregnancy during this time."

From an NFP teacher: "I once called Vicki about a client issue and got to talking about nutritional helps for conceiving in the later years of fertility (for myself). Her advice and encouragement after my miscarriage I think were a great part of my hope and nutritional interventions that were rewarded with our now three-year-old little boy, who came home from the hospital on my forty-third birthday!"

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Recovery from the Birth Control Pill & Other Hormonal Contraceptives

By Kim Schuette, CN, CGP

Since its release in the early sixties, the birth control pill has been surrounded by concern and controversy. While over three hundred million women worldwide have at some point employed the pill due to its alleged convenience, most have done so unaware of its implications for women's health and future fertility. Contrary to popular wisdom, the pill, with its immediate and longterm effects on the body's biology, is not the ideal form of contraception. Its risks far outweigh the ease with which it is administered. Regardless of the length of time a woman has used the pill, the body will require support in recovery from its use.

Over the decades of the pill's availability, manufacturers have lowered its levels of synthetic estrogen and progesterone as evidence of the damaging effects of synthetic hormones emerges—such as increased risks of uterine and breast cancers.¹ The resulting detrimental effects also come from the use of other hormonal contraceptives delivered via patches, injections, under-the-skin implants, vaginal rings and hormone-impregnated IUDs (intrauterine devices). Such early effects as thrombosis and embolism sent the developers back to the labs in hopes of a safer formula for what they seem to consider a chronic condition: fertility. And as time moved along, many doctors began using the pill for acne and dysmenorrhea as well. Sadly, the consequences of exposure to synthetic hormones continues to be a problem with the pill and other hormonal contraceptives.

The three most troubling physical side effects of using the pill and other hormonal contraceptives are hormonal imbalances, nutritional deficiencies and the likelihood of multiple abortions while on the pill. The birth control pill is known to deplete the body of vital nutrients, and yet very few physicians alert their patients to this when prescribing it. The nutrients that the pill depletes are the very ones that are so critical to the development of a healthy nervous system in future developing babies. Vitamins B_6 , B_{12} and folate, all depleted by the pill, are crucial to the brain and nervous system of all humans— adults, children and growing babies in utero.

Other nutrient deficiencies associated with the pill include low vitamins B_1 and B_2 , biotin, vitamin C and critical minerals such as copper and zinc. These deficiencies can result in fatigue, low libido, skin eruptions, insomnia, paranoia, weight gain, bloating, depression, anxiety, dizziness, dandruff, hair loss, itchiness and hormonal imbalances.

Further aggravating hormonal imbalances resulting from nutrient deficiencies, synthetic estrogen and progesterone add insult to injury. The results include weight gain, fibrocystic breast disease, bone loss and infertility. The contribution of synthetic hormones to the formation of cancer growth in the breasts and uterus is well documented

A more recently understood problem associated with the use of the pill involved a significant disruption of gut flora. David Perlmutter, MD, explains that while almost all medications adversely affect the microbiome, the long term daily usage of this synthetic hormone-altering medication is especially damaging to the intestinal terrain.² It can decrease thyroid hormone production as well as available testosterone. Additionally, its long-term use can contribute to insulin-resistance and oxidative stress, increasing systemic inflammation. The pill's negative effect on the microbiome is part of the reason mood swings and anxiety disorders are common among users. Our gut flora are intimately involved in the production of neurotransmitters that influence mood and outlook. Research has shown that hormonal contraceptives have been linked to the development of inflammatory bowel diseases, such as Crohn's and colitis.³ As Hippocrates once said, "All disease begins in the gut." Addressing the potential damage by the pill on the gut is imperative to supporting one's health and the health of those to come.

RECOVERY DIET

Ideally a young woman hoping to have a baby should wait at least two years after discontinuing the pill before attempting to conceive. Also important is avoidance of antibiotics for at least two years prior to conception. This will allow the woman's body to build up the vital vitamins, minerals, hormones and intestinal flora necessary for a vibrant pregnancy and healthy baby. Low levels of beneficial bacteria in the gut, as well as the overgrowth of candida and other pathogenic yeasts and bacteria, are commonly found in the mothers of autistic children. I highly recommend the implementation of the Gut and Psychology Diet (GAPS) after stopping the pill. This gut-nourishing and healing diet developed by Natasha Campbell-McBride, MD, will support the re-establishment of beneficial gut flora and greatly improve one's ability to assimilate and synthesize key nutrients, especially B_6 and B_{12} .

The weekly inclusion of liver is the most significant way to address vitamins B_6 and B_{12} depletion. Four to six ounces of chicken liver or three to four ounces of beef liver should be consumed on a weekly basis. This can be spread out over the course of a week. Liver pâté or my raw milk and cream shake (see sidebar, page 43) are both simple, delicious and satisfying ways to include liver in the diet.

Folate is best repleted through the generous use of cooked dark leafy green vegetables daily along with the liver. By including real food sources of vital nutrients (especially B_{12} and folate), one need not worry about genetic

The three most troubling physical side effects of using the pill and other hormonal contraceptives are hormonal imbalances, nutritional deficiencies and the likelihood of multiple abortions while on the pill.

Hormone balancing is often needed after cessation of the pill.

mutations interfering with the absorption and utilization of vitamins. In cases where supplementation is desired, consider the use of genetic testing such as is available through 23andme. com with interpretative data via a company like livewello.com or mthfrsupport.com. Synthetic folic acid and cyanocobalamin (a form of B_{12}) should be avoided. As much as folate deficiency can be injurious to developing babies, excessive synthetic folic acid can also be problematic.^{4,5} Some researchers believe that synthetic folic acid does not cross the placenta barrier,⁶ which is all the more reason to obtain folate directly from food sources.

Vitamins B_1 and B_2 (thiamine and riboflavin) are found in organ meats, seafood, grains (ideally properly soaked), nuts (also properly soaked), vegetables and legumes (soaked). Biotin, also known as B_7 , is abundant in almonds and walnuts, wild cold water fish (sardines, anchovies, salmon and trout), liver and egg yolks. For mineral boosting, bone broth should be included in the recovery diet daily. Additionally, zinc can be obtained by consuming oysters, liver and red meat; copper from liver, nuts and oats; and lastly but so very important is the inclusion of vitamin C-rich foods like liver (yes, liver is high in just about every vital nutrient), fresh berries and citrus as well as peppers.

OTHER THERAPIES

Along with rebuilding nutritional deficiencies supporting liver function (and thereby the excretion of resulting excess hormones), use of botanical therapies such as gemmotherapy or herbal tinctures is important. In most cases, I use Rosmarinus in the gemmotherapy form. Rosmarinus has traditionally been used to support the liver in its processing of hormones, especially estrogen. Milk thistle can also be very helpful for this same purpose. I recommend you work with a trained health care practitioner knowledgeable in the use of gemmotherapy and other biotherapeutic and homeopathic drainage remedies. Employing the use of daily castor oil packs over the abdomen for a period of time will allow for the increased efficacy of the chosen liver support.

Hormone balancing is often needed after cessation of the pill. Many women find that

their menses becomes very irregular or even non-existent after stopping the pill. In addition to dietary and liver support, ProtomorphogenTM brand extracts can be very helpful. Protomorphogens are produced by every living cell in the body. The germ cells, the sperm and egg of humans, are bundles of protomorphogen blueprints, if you will.7 Standard Process has been producing high quality Protomorphogen brand extracts since the 1940s. These therapeutic supplements assist the body in regenerating targeted tissues and glands. The inclusion of pituitary, hypothalamus, ovary, adrenal and thyroid support via Protomorphogen brand extracts can be exceptionally beneficial for women who have used any hormone medications. I regularly use these in assisting women to recover from the pill and normalize their menstrual cycles.

Other supportive supplementation may be helpful as well. The addition of unrefined cod liver oil supports inflammatory states such as endometriosis. Evening primrose oil or black currant seed oil encourages production of natural progesterone, as does the use of a high quality chaste tree product, such as that produced by Mediherb.

When cycles are irregular, I have found a rotation of cod liver oil given from new moon to full moon and evening primrose oil with chaste tree taken from full moon to new moon to be extremely beneficial. A little-known fact is that ideally a woman's menstrual cycle should last twenty-eight days, syncing with the lunar cycle.8 This is one of the most basic rhythms found in nature. In days of old, a woman's ovulation most commonly occurred on the full moon. For this reason, weddings were planned on the full moon. A honeymoon conception was considered a blessing on the couple's new union. This changed with the advent of electricity. Scientific studies have found that the moon governs the flow of fluids, both those of the ocean and those of a woman's menstrual cycle.9 We can use the lunar calendar as a schedule for those in a state of amenorrhea after coming off the pill to create a more rhythmic cycle.

Lastly, the third detrimental side effect the pill and other hormonal contraceptives (IUD, Dep-Provera, the Patch, hormonal vaginal contraceptive rings like NuvaRing, and the "morning after" pill) is that conception can still occur and most often results in the embryo being aborted without the woman's knowledge.¹⁰ The abortion itself (detachment of the fetus from the uterine wall), as well as the use of Progestin, a synthetic form of progesterone used in hormonal contraceptives (as well as in hormonal replacement therapy for menopausal women), can cause uterine scarring. To address this problem, unrefined cod liver oil, Utrophin PMG, a Protomorphogen brand extract from Standard Process, and the gemmotherapy Rubus Idaeus are excellent choices for support and regeneration of the uterine lining. Additional homeopathic remedies can also be very helpful and should be chosen for the individual by a trained homeopath.

WISDOM

The wisdom of our ancestors calls us to respect nature's provisions and its cyclical rhythms. Those who walked before us understood the good judgment of honoring our own biological cycles, as well as those of the earth and moon. Being intentional in eating seasonally and in taking our sleep cues from the sun will open up opportunity for more vibrant health. Moving young women to a more natural and traditional diet and lifestyle is our best hope for creating a healthier world for tomorrow—one that gives each child a nourishing beginning and a chance to experience life to its fullest.

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

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RAW MILK & CREAM SHAKE

Serves one

2-4 ounces raw organic cream* or coconut cream (Artisana coconut cream)
3-6 ounces raw milk or kefir or yogurt, if desired* (or coconut milk or whole milk yogurt)
1 cup berries, fresh or frozen (optional)
2-3 raw organic egg yolks
1 tablespoon or more raw liver, cut into small pieces, frozen for at least 14 days prior to use
1 teaspoon raw honey
1 tablepsoon organic, unrefined coconut oil

Place all ingredients in blender or food processor and process until well blended. Enjoy!

*People following the GAPS[™] Diet should omit raw cream—instead use sour or piima cream. Ideally raw or sour/piima cream is best for supporting hormone health. Cultured cream may be made from viili, piimä and filmjölk cultures (all mesophilic cultures, room temperature cultures). Cultures may be purchases online from Cultures for Health.

Reversing the Trend: A Mother-Daughter Comparison

Judith Mudrak

y upbringing in Switzerland came during the transition from traditional to modern foods. We lived about fifteen minutes outside the city of Bern. Mom gave us one tablespoon of yellow-colored cod liver oil from a quart-sized brown bottle every morning during the cold months. Until I was about thirteen years old, the milk man delivered raw milk daily, but everyone was told to boil their milk.

Unfortunately, my mother used margarine for spread on bread—as per instructions from her doctor, for fear we would gain weight, although we were all very slim! But she also used golden pasteurized butter for cooking and fatty slab bacon (called *Speck*) for daily frying. Pork ears, tails, snouts and feet were weekly regulars with a treat of mustard on top—to cover reality—never chops or steaks. Once in a while mom had rabbit from my grandfather or ground horse meat, cooked in *Schmalz*. Thursday was liver sausage day and Friday blood sausage day. However Mom used MSG (Aromat and Maggi) daily.

When we vacationed in the mountains, Mom would get us farm-fresh raw milk from the Käserei, raw cream from the mountain farms (which we ate with wild picked mountain blueberries) and farm eggs. They tasted so wonderful! Although mom was (and still is) an incredible cook, there was too much sugar in the house, which may have caused a roller coaster effect on our health!

Overcrowding of my teeth was not an issue—no wisdom teeth had to be removed. My eyesight was good until I turned fifty, but then I needed glasses. When I attended elementary and middle school in Switzerland in the 60s and 70s, all children were forced to take fluoride tablets daily during morning class. I received my first mercury fillings at age nine; my tonsils were removed at fourteen.

Still, I credit the present good health of my parents (both born in 1925, ninty-one years old this year!) to their now-daily intake of raw morning eggs, raw milk, raw cream, raw cheese and raw garlic cloves among other healthy foods. Cheating still happens, but Mom did clean up the margarine-and-sugar diet! Never too late!!Recently they both went on two welldeserved six-day cruises on the Rhine and a seven-day Mediterranean cruise. I did worry about their food intake there!

THE SAD DIET

Marriage brought me to the U.S. in 1975. I adopted the SAD diet as my husband did not want to eat my diet of liver, onion and pigs feet—it took him twenty years to realize that food may contribute something to health—stubborn! Forty-one years later he credits raw milk, cod liver oil and the Wise Traditions diet for his energy and well being.

I went from ninety-five to one hundred twenty-five pounds in my first year in the U.S. as I adapted late night snacking, which I was not accustomed to.

Fortunately my pregnancy was uneventful and I gave birth in June 1978 to our beautiful seven-pound-ten-ounce daughter Miriam-but not without troubles: I was very slow dilating and endured over thirty-eight hours of labor; the baby had to be turned as she came upside down. I was torn and had many painful stitches—in fact, I could barely sit, stand or lie down for seven weeks! On the third day after the birth, an infection set in, and I was forced to guit nursing. The doctor put me on antibiotics for ten days while I pumped my breasts, desperately wanting to go back to nursing. I remember looking through the hospital glass window watching my husband bottle feed our baby a conventional formula as she vomited that awful stuff right back up. I felt so bad.

Forty-one years later he credits raw milk, cod liver oil and the Wise Traditions diet to his energy and well being.



Sixteen-month-old Cole is eager to help in the kitchen and enjoys serious bites of butter. Besides mom still nursing, he loves the wonderful Wise Traditions diet!

I fell into the soy trap and paid with a hysterectomy four years later, because of the growth of a nonmalignant tumor.

Thankfully I was able to nurse again after the ten days and did so for eleven months. She was a very happy, chubby baby, curious and always exploring. With no experience I listened to my authorities about most everything. When she was about five or six months old, I felt like she was not getting enough nourishment from me alone so I began adding Gerber instant cereals and other solid foods. She received the recommended vaccinations. In 1980 our well went dry and we had to connect to fluoridated city water. When she was four, I started her on baby fluoride tablets. I obtained them from a Swiss Apotheke. About a year thereafter her hair fell out in bunches. She was about five and one-half when I began using the microwave oven to cook her morning eggs and pre-packaged oatmeal. She loved to stand in front of the oven and watch it cook. Had I only known!

Miriam began having hour-long sneezing fits every morning before school, and she blew her nose sounding like an elephant. My husband also suffered from long sneezing fits since he was a child, especially around fresh cut grass and flowers. Our daughter began her monthly cycle three years before I did at age eleven for me it was age fourteen and my mother age seventeen.

Miriam has never had cavities even to this day—which I credit to daily gentle brushing with water since the eruption of the first tooth but needed glasses at age eight, braces and then all wisdom teeth removed at age seventeen for the sake of space. I felt that was so wrong; surely God did not make a mistake giving us wisdom teeth. There had to be another solution!

In the mid nineties I began searching for the real diet and thought I had found it! I fell into the

soy trap and paid with a hysterectomy four years later, because of the growth of a non-malignant tumor. I almost bled to death as the hospital did not forward my messages to my doctor. I heard my blood rushing in my ears. Considering all this, I was doing pretty well, still working in my garden with a hemoglobin of 5.3, (normal is about 12) while replenishing my strength daily with wild edibles, herbs and meat.

The turning point came in 2002 when I heard about the Weston A. Price Foundation at the herbal conference Green Nations Gathering in upstate New York. I heard why butter is better and about the ploy of soy! I joined the Foundation immediately, and soon we were drinking raw milk and eating raw butter. It all made perfect sense! My husband and daughter's allergies disappeared—but only when we could obtain raw milk. (By the way, my husband would have died in 1953 when he was just a few days old if it had not been for an old-time medical doctor demanding he receive raw goat's milk! His mom was too sick to nurse because of her poor diet and formulas did not work.)

THE NEXT GENERATION

In 2012 Miriam got married. Thankfully her husband adopted much of the WAPF diet. In February 2014 she conceived and started taking cod liver oil—of course it should have been the other way around, cod liver oil first and then conception.

They visited Germany for one week in May and Switzerland for two weeks in June. While in Germany she could not find grass-fed raw milk, and *all* her childhood allergies returned with a vengeance! "It was awful, it was horrible," were her words. "My nose leaked so much, I had to

RECOMMENDED READING

The Nourishing Traditions Book of Baby & Child Care by Sally Fallon Morell and Tom Cowan, MD: "Since our son was born, the Baby and Child Care book has been incredibly helpful and entertaining. I couldn't read Chapter Eight, 'Bringing up Baby' fast enough! The book covers everything from the over-stimulation in babies to baby toys that should be avoided to sleeping schedules. I especially appreciated the list of milestones which showed me that our little man was growing up healthy, strong and on par with his age. The book teaches how to nourish the baby, how to strengthen mom and dad's immune system, and how to embrace good foods for life and long health. This book has given me such confidence as a new mom. Many times while reading this book I think, 'Duh! This all makes perfect sense!'"

How to Raise a Healthy Child in Spite of Your Doctor by pediatrician Robert S. Mendelsohn, MD: This book helps parents take control of their child's health and advises what to do when a baby gets sick.

keep tissues there all the time—and I snored at night!" It took her ten days on raw milk from a vending machine in Switzerland before the allergies cleared.

Four days before the delivery, she ate another can of sardines (having eaten many already) and also followed my Swiss aunt's advice (who had five easy births, one on the highway going to church!) by consuming about a tablespoon of ground flax daily in her last two months of pregnancy. She also used hemaplex (a supplement for healthy blood) just to be safe (suggested by her midwife).

The day before delivery, Miriam worked in New York City all day, cooked dinner in New Jersey and then was driven one and onehalf hours to her midwife in Lancaster County, Pennsylvania. She had a full term baby by water birth—a healthy seven pound baby boy, pushing actively for only eight minutes, and losing only about two cups of blood. Baby was born quiet and content and had his first bowel movement within the first hour.

Miriam likes to call it "Destination Birth," and feels that this is a new trend. "Our baby was born in a beautifully restored 1800s farm cottage with just my husband and the midwife.—such a peaceful, relaxing setting." Says Miriam, "I credit a strict diet from the WAPF, my midwife and mom for a quick and safe six-hour delivery. No sugar, coffee, alcohol or refined carbs for almost a year, with lots of organic, nourishing whole foods, including lots of healthy fats. I'm already back in my jeans!"

Amazing the difference between Miriam and myself! Now I'm curious what my grandson's dental arches and eyesight will be. I'm thankful for the midwife teaching my daughter so many things (I learned nothing from my doctor or the hospital!) One piece of advice was to cradle the baby in the last trimester so it would not come with the head turned upwards like mine did. She was continually on top of blood levels, proper diet and so much more. While pregnant our daughter shared the diet with her pregnant girlfriend who experienced preclampsia and had a caesarian with her first pregnancy. Her girlfriend then went on the Wise Traditions diet and had a healthy second pregnancy with vaginal birth!

Of course, much gratitude must go to the Weston A. Price Foundation, which is helping countless mothers reverse the trend of physical degeneration. What greater gift to any family than a healthy child!

Judith Mudrak is the author of the German book Milch ist nicht gleich Milch! (Not All Milk is Alike). She writes articles about milk for Swiss farming communities and has been interviewed several times in Switzerland about America and the raw milk movement. She holds frequent power point presentations on milk as well as market stands in Switzerland, Germany and Austria. Since 2006, she has led the WAPF Swiss tours and is the chapter leader for both Southampton, NJ and Bern, Switzerland. As an herbalist Judith teaches about wild edibles, makes her own medicine and tends to her large garden and a flock of seven chickens.

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Understanding the Concussion Epidemic: The Importance of Nourishing the Brain

Merinda Teller, MPH, PhD

hen the film *Concussion* was released in late 2015, pundits noted that the topic of sports-related traumatic brain injuries (TBIs) had "gone Hollywood."¹ Although the movie focuses on National Football League stonewalling and obfuscation about football-related head trauma, it also taps into growing collective anxiety about the broader risks associated with sports-related head injuries.² A national survey conducted with over fifteen hundred parents in 2014 found that 89 percent of parents worried about the risk of sports injuries for their children, and concussion and head injuries were the leading injury of concern.³

Parents' fears about head injuries are not unfounded. It is conservatively estimated that between 1.6 and 3.8 million concussions occur annually in the United States as a result of athletic involvement.^{4,5} Moreover, the rate of sports-related concussions has been increasing, with one prospective study finding a 15.5 percent annual increase over an eleven-year period.⁶

As another indicator of this trend, emergency department visits for sports- and recreationrelated TBIs among children and adolescents rose 62 percent from 2001 to 2009,^{7,8} even though youth participation in sports has been steadily declining in recent years (Figure 1).^{9,10} Improved detection of concussion cannot explain all of the increase.⁴ It also should be noted that statistics on emergency department visits do not reflect other non-emergency department medical visits that are occasioned by sportsrelated concussions,¹¹ or the many concussed individuals who do not seek medical attention.

The Centers for Disease Control and Prevention (CDC) categorizes concussions as a "mild" form of TBI but acknowledges that all TBIs disrupt normal brain function.12 Neurological surgeons caution that no concussion should be taken lightly.¹³ In the short term, concussions may cause a range of physical, cognitive, behavioral and emotional signs and symptoms.⁴ More disturbingly, researchers have found that some concussions can have downstream neurodegenerative effects, giving rise to "patterns of decline often associated with abnormal aging."14 A 2014 study in Surgical Neurology International coined a term for this increasingly prevalent problem: "diminished brain resilience (DBR) syndrome."11

DIMINISHED BRAIN RESILIENCE

The authors of the 2014 study are Wendy Morley, nutrition specialist, and Stephanie Seneff, senior research scientist at MIT (and a frequent Wise Traditions contributor). The two authors make a compelling argument that our modern lifestyle and environmental toxins are the key culprits responsible for the alarming uptick in concussions and concussion-related neurological damage. A series of deeply interrelated environmental and lifestyle problemspesticide and chemical toxicity, exposure to heavy metals such as aluminum, poor gut health, overconsumption of processed foods, nutritional deficiencies (especially during the formative years), and insufficient access to sunlight-are setting into motion a perfect storm of events that are making our brains less resilient to shocks and disturbances of all types.

According to Morley and Seneff, the human body's innate regulatory and healing mechanisms are ordinarily sufficient to "maintain homeostasis and enable physiological resilience."¹¹ When we are physiologically intact and healthy, intrinsic brain mechanisms typically allow us to recover spontaneously from uncomplicated single concussions within twenty-four to seventy-two hours. However, due to widespread exposure to environmental

When we are physiologically intact and healthy, intrinsic brain mechanisms typically allow us to recover spontaneously from uncomplicated single concussions within twenty-four to seventy-two hours.



Figure 1. Percent of youth active three times a week in any sport activity (2007-2014)

Glutamate is both essential and highly toxic at the same time. toxins, detrimental changes in the food supply and the loss of formerly protective lifestyle practices, few of us are lucky enough to have "unaltered physiology." Thus instead of producing a normal regenerative healing response, our impaired ability to recover quickly results in a "downward spiral of neurological demise."¹¹

Functional deficiencies and depletion of important brain nutrients are one of the key reasons for our increased susceptibility to brain injury and our compromised ability to heal. Common deficiencies include sulfur, magnesium, zinc, vitamin D, B vitamins and omega-3 essential fatty acids (EFAs)—especially docosahexaenoic acid (DHA). Each of these functional deficiencies has numerous downstream physiological consequences related to brain injury and diminished brain resilience (see partial list in Table 1).

GLUTAMATE TOXICITY

Glutamate is the brain's most abundant neurotransmitter, serving as a chemical messenger that relays signals between neurons. Glutamate is needed for learning and memory and as an important source of energy, and is involved in numerous aspects of normal brain function and "many different and interconnected processes."¹⁵ However, glutamate is excitatory (brain-stimulating) as opposed to inhibitory (brain-calming), and it has somewhat of a split personality:

"Glutamate has to be present in the right concentrations in the right places for the right time. Both too much and too little glutamate is harmful. This implies that glutamate is both essential and highly toxic at the same time."¹⁵

The issues surrounding omega-3 deficiencies, brain injury and glutamate toxicity (see Table 1) are particularly interesting. As it happens, glutamate is released in large amounts after a TBI. While the brain has various mechanisms to restore glutamate homeostasis, neurodegenerative conditions and concussions impair glutamate clearance. The result—excessive glutamate—then triggers a cascading series of damaging inflammatory effects. Thus, as the body tries to heal by releasing glutamate, it sets into motion a hyper-reactive excitatory response that damages the delicate neuronal tissue in the brain. These secondary effects turn out to be far more influential in determining the severity and outcome of concussion injury than the original mechanical forces involved in the concussion.

Neuroprotective omega-3 fatty acids can decrease the toxic effects of glutamate. However, because of the widespread deficiency of omega-3 fatty acids in the modern diet, this neuroprotective action may not be readily available to many concussion sufferers.

SULFATE AND SULFATE TRANSPORTERS

Insufficient supplies of sulfate to the brain—or more precisely the cerebrospinal fluid (CSF)—provide a central explanation for many neurological disorders.¹⁶ (Sulfate is the oxidized form of sulfur.) Impaired sulfate supply is a factor, for example, in Alzheimer's disease, in part because adequate sulfate is needed to remove potentially neurotoxic waste products and prevent oxidative damage.¹⁷ In the case of concussion, Morley and Seneff suggest that insufficient supplies of sulfate to the CSF (caused by environmental and lifestyle factors) leave the delicate neuronal tissues in the brain vulnerable to jarring.¹¹ When there is insufficient sulfate in the brain, the neuronal tissues produce

TABLE 1. Functional nutritional deficiencies and their implications for brain injuries

DEFICIENCY OF:	RESULTS IN:
Sulfur	Impaired recycling of cellular debris and increased sensitivity to sudden impact
Magnesium	Lower seizure thresholds
Zinc	Increased protein misfolding comparable to that seen in Alzheimer's disease
Vitamin D	Increased likelihood of infectious agents in the brain
B vitamins	Glutathione depletion and increased oxidative stress
Omega-3 fatty acids	Increased glutamate toxicity

Adapted from Table 1 in Morley and Seneff, 2014.¹¹

a hyper-reactive inflammatory response in an attempt to regenerate the supplies of sulfate that neurons need, but this response is ultimately counterproductive.

Sulfate depletion also impairs two important repair and clean-up mechanisms that are needed following brain injury, namely neuronal repair and recycling of cellular debris. Sulfate supplies in the CSF become inadequate when sulfate transporters are insufficient. Sulfate transporters include the monoamine neurotransmitters (melatonin, serotonin, dopamine and norepinephrine), and sterols such as cholesterol, DHEA and vitamin D₃. The pineal gland (an endocrine gland in the center of the brain) plays a particularly important role in the sulfate transport process, synthesizing melatonin at night and delivering it to the CSF in the form of melatonin sulfate. Adequate sunlight during the day is essential to build up the supplies of sulfate needed to accomplish this nighttime transport process.¹⁸ Sun exposure is also a necessary (though not sufficient) condition to produce functional vitamin D₃, another sulfate transporter. Interestingly, the brain centers responsible for producing serotonin, dopamine and norepinephrine are situated in close proximity to the pineal gland.

It is noteworthy that the omega-3 fatty acid

DHA is also essential for the pineal gland to carry out sunlight-catalyzed sulfate synthesis. Morley and Seneff observe that DHA is "the most neuroprotective component of the omega-3 oils and makes up the most abundant fatty acid in neural membranes."¹¹ Although DHA normally should be present in substantial amounts in the pineal gland, omega-3 fatty acid deficiencies, as already mentioned, are at epidemic levels. A shortage of DHA, therefore, is problematic for sulfate synthesis as well as other protective and healing mechanisms.

THE ROLE OF GLYPHOSATE

Some interesting parallel trends have occurred over the same time period that sports-related concussions (and other forms of neurological-related damage) have been on the rise.¹¹ For Morley and Seneff, one of the most relevant and disturbing trends is the dramatic increase in use of glyphosate (the active ingredient of Monsanto's Roundup weed killer). Glyphosate is the most widely used herbicide in the world, with nearly a billion pounds of this toxin applied annually. In the U.S., according to the U.S. Department of Agriculture (USDA), glyphosate accounted for roughly 50 percent of total herbicide quantity as of 2008.¹⁹

The escalating use of glyphosate has ac-

Sulfate depletion also impairs two important repair and clean-up mechanisms that are needed following brain injury.



Source: Fernandez-Cornejo et al., 2014.¹⁹

companied the wholesale adoption of genetically modified (GM) "Roundup-Ready" soy, corn, cotton and other GM crops (see Figure 2). From 1996 to 2008, there was a whopping 764 percent increase in millions of pounds of the amount of glyphosate applied to soy crops, as well as a 2167 percent increase in its use for corn crops and a 977 percent increase for cotton crops.¹⁹ The USDA admits that the surge in glyphosate use has led to the development of glyphosateresistant weed populations, prompting growers to apply other herbicides in conjunction with glyphosate and increasing the overall quantity of herbicides applied to GM crops.¹⁹

Over 80 percent of all processed foods in the standard North American diet contain GM ingredients, many from glyphosate-exposed crops. Glyphosate also has been detected in our water and air as well as in human urine samples. Of relevance to our modern-day problems with TBIs, according to Morley and Seneff, this explosive and cumulative increase in glyphosate exposure depletes sulfate supplies to the neural tissues. Sulfate depletion, in turn, leaves neural tissues "especially vulnerable to jostling through sudden impact" and impairs vital repair mechanisms.¹¹

In addition to affecting sulfate supplies, glyphosate also disturbs at least three other critical processes. First, glyphosate interferes with the synthesis of the aromatic amino acids (tryptophan, phenylalanine and tyrosine), which are precursors to the monoamine neurotransmitters that serve as sulfate transporters. In the process, glyphosate binds to and immobilizes micronutrients in plants, which carries over into nutrient deficiencies and diminished nutritional value in the glyphosate-exposed processed foods that we consume.

The second way that glyphosate alters our physiology is by disrupting all-important gut bacteria.¹⁶ It is common knowledge that beneficial gut bacteria perform many crucial biological functions. Glyphosate's interference with our gut flora allows opportunistic pathogens to gain the upper hand and produce toxic by-products such as formaldehyde. It also adversely affects the synthesis of the B vitamins that are essential for methylation; and glyphosate impairs glutathione (GSH) synthesis by depleting methionine. GSH is the brain's major antioxidant, and GSH depletion leads to neuronal degeneration.

Third, glyphosate interferes with the activity of the cytochrome P450 (CYP) enzymes in the liver.¹⁶ CYP enzymes are important for vitamin D_3 activation, production of cholesterol sulfate and detoxification of drugs and toxins. Morley and Seneff suggest that glyphosate's suppression of CYP enzymes may explain the rampant vitamin D_3 deficiencies observed in this country. As already noted, vitamin D_3 is a sulfate transporter, and problems with sulfate transport are linked to insufficient sulfate supplies in the CSF.

GLYPHOSATE-ALUMINUM SYNERGY

Aluminum is a known neurotoxin²⁰ that bioaccumulates in the brain and can catalyze immunoexcitotoxicity. Glyphosate works synergistically with aluminum to cause harm, in part by promoting aluminum uptake.¹⁶ According to Morley and Seneff, glyphosate plausibly "facilitates the penetration of aluminum across the gut barrier"—and the fact that glyphosate disrupts beneficial gut bacteria further enhances aluminum penetration.¹¹ Aluminum's known physiological effects can also explain, independently of its interaction with glyphosate, the type of brain inflammation that is making it difficult for concussions to heal as nature intended.

There are many possible routes of exposure to aluminum, but for children, one of the most significant sources is the aluminum adjuvants contained in numerous vaccines. Adjuvants are substances added to produce a stronger immune response to the microbial antigens.²¹ Table 2 lists

TABLE 2. Amount of aluminum in vaccines, micrograms (mcg) per shot

VACCINE	BRAND NAME(S)	AMOUNT OF ALUMINUM (MICROGRAMS)
Diphtheria-tetanus-pertussis (DTaP)	Tripedia	170 mcg
DTaP	Daptacel	330 mcg
DTaP	Infanrix	625 mcg
Haemophilus influenza type b (Hib)	PedVaxHib	225 mcg
Hepatitis A	Havrix, Vaqta	250 mcg
Hepatitis B	Recombivax, Er	ngerix B 250 mcg
Human papillomavirus (HPV)	Gardasil	225 mcg
Pneumococcus	Prevnar	125 mcg
DTaP + hepatitis B + polio combo	Pediarix	850 mcg
DTaP + Hib + polio combo	Pentacel	330 mcg

Source: Sears RW, n.d.²²

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the vaccines that contain aluminum adjuvants in the U.S., along with the amount of aluminum contained in each. As Dr. Robert Sears' pediatric website shows, newborns and infants who follow the current vaccine schedule receive 250 micrograms (mcg) of aluminum in the hepatitis B vaccine on the day of birth and another 250 mcg in the second hepatitis B shot at one month of age.²² This is followed by anywhere from 295 to 1225 mcg of injected aluminum at the twomonth appointment, repeated at the four-month and six-month follow-ups, producing a possible total of nearly 3,000 mcg by six months,²² and 4,925 mcg by 18 months.²³ Investigators at the University of British Columbia have found a highly significant correlation between the number of aluminum-containing vaccines administered and the rate of autism spectrum disorders.20 As the vaccine schedule continues to expand, so does children's cumulative exposure to neurotoxic aluminum.

Injection is a particularly toxic mode of exposure to aluminum. Injected aluminum enters the brain quickly and is slow to be excreted, with a half-life of about seven to eight years. Disturbingly, the children who are involved in organized team sports and are potentially at risk of concussion are exposed to additional injected aluminum in their preteen and teenage years through booster shots, even though the adjuvants that they received in early childhood and again at ages four to six have not yet left their bodies. Vaccine booster shots targeted at preteens that contain significant amounts of aluminum adjuvant include DTaP or Tdap, Gardasil and the meningitis B vaccine recommended by the CDC in 2015 for teens between ages sixteen and twenty-four.²⁴ The Gardasil 9 vaccine approved by the FDA in late 2014 contains over twice as much aluminum (500 mcg) as the original Gardasil vaccine (225 mcg).

Teen lifestyles also feature other oral and topical aluminum exposures. These include aluminum-containing antiperspirants, sports drinks such as Gatorade (and other processed foods with aluminum-containing food dyes) and sunscreens, which have aluminum nanoparticles. Considering the synergistic relationship between aluminum and glyphosate, high consumption of junk and processed foods containing GM ingredients by teenagers is also cause for concern.

BUILDING STRONG SKULLS AND RESILIENT BRAINS

Morley and Seneff's wide-ranging article provides sobering evidence that environmental and lifestyle factors have given rise to the problem of diminished brain resilience syndrome—a problem with serious and potentially lifelong

RECOVERING FROM CONCUSSION

The standard medical response to concussion has been to prescribe complete cognitive and physical rest (often in a darkened room) to avoid reinjuring the brain. Typically, this means avoiding reading, screen time and exercise until full alleviation of symptoms.

Full rest in the first few days after injury is still considered critical. However, some physicians also have been developing a more proactive approach to treatment.¹ Instead of "waiting for the brain to right itself on its own," this approach draws on the concept of neuroplasticity, which recognizes the brain's ability to adapt. By carefully pinpointing the specific problems that the individual is experiencing (such as vestibular system deficits, impaired vision or language problems) and prescribing exercises that are comparable to "physical therapy for the brain," these physicians believe that it may be possible to encourage steadier improvement, although the approach still requires caution and fine-tuning.¹

In addition to rest, administering alternating drops of fermented cod liver oil and high-vitamin butter oil under the tongue can support the healing process. Cod liver oil is particularly helpful in reducing inflammation and promoting neuron repair. Homeopathic *Arnica* (or *Aconite* for the very fearful) in a 200C potency can also stimulate recovery if given shortly after the concussion, and other homeopathic remedies can be supportive over the longer term.²

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Injected aluminum enters the brain quickly and is slow to be excreted, with a half-life of about seven to eight years. ramifications.11 Moreover, DBR syndrome is only one component of a lengthy roster of neurological disorders that characterize our modern era and reflect diminished brain resilience, including, notably, Alzheimer's disease, but also other forms of dementia, Parkinson's disease and other disorders. Neurological disorders and deaths have increased disproportionately in the context of declining total mortality.¹¹ In 2010, for example, the U.S. ranked second among twentyone high-income countries in deaths from neurological disorders, up from seventeenth place in 1991.²⁵ One in nine Americans (11 percent) has Alzheimer's disease (AD)-the sixth leading cause of death in the U.S.-and AD-related mortality rose by 68 percent between 2000 and 2010.26

In light of these dire trends, what are we to do? The first step is to ensure that mothers-tobe and growing children, especially, consume nourishing foods with the high levels of minerals (including good sources of calcium) and fat-soluble activators needed to support optimal skeletal development.27 The fat-soluble activators-that is, the animal forms of vitamins A, D_3 and K_2 —are essential for enabling the body to absorb and use minerals. As documented in Weston A. Price's masterpiece, Nutrition and Physical Degeneration, the quality of skeletal material is wholly dependent on adequate and appropriate nutrition that features these key components.²⁸ Price noted, for example, that "the excellent nutrition of the pre-Columbian Indians is indicated in the comparative thickness

of the skulls" (page 100), and remarked on the superior skull development of other primitive groups, particularly those who made abundant use of sea-animal life-noteworthy for its especially high content of minerals and fat-soluble activators (page 495). Examining a collection of ancient and modern skulls in Rome, Price found that whereas "only four skulls out of 4,000 [0.1 percent] belonging to the pre-Christian era...showed serious malformations, approximately 40 percent of the skulls...of people who died in the last fifty years [in mental institutions] showed gross imperfections and abnormal formations." To endow modern-day children with the thick, strong skulls that Price once encountered and that surely represented protection against the adverse effects of concussion, modern parents-to-be and parents cannot afford to neglect sacred foods such as cod liver oil, raw milk and other raw dairy products from pastured cows and egg yolks from pastured chickens. For the more adventurous eaters, small fish such as anchovies and sardines, fish roe, liver and bone marrow are also excellent sources of minerals and fat-soluble activators.²⁷

Unfortunately, it is impossible to eliminate fully our toxic exposure to pernicious substances such as glyphosate, but there is much that we can do to limit the damage that such toxins cause. In addition to eating the type of diet just described, we clearly should stay away from GM foods and ingredients, improve and maintain our gut health through regular consumption of fermented foods and avoidance of antibiotics, make sure that we consume adequate omega-3 fatty acids (seafood and organ meats are superb sources of DHA) and avoid sunscreen and sunglasses to ensure that we get enough sunlight to support sulfate synthesis and vitamin D₃ conversion. Avoiding aluminum exposure—and particularly injected aluminum—is also critical. More broadly, there is no doubt that we should all be working to encourage a societal shift away from the chemical- and toxin-dependent agricultural and medical practices that are diminishing brain resilience.

Merinda Teller, MPH, PhD is a freelance writer specializing in the areas of nutrition and holistic health.

TRUE STORIES OF CONCUSSION

- A boy grew up eating a junk food diet and drinking large quantities of soda. One day, while waiting for his carpool, he fell off of a two-foot-high wall and hit his head, resulting in a concussion. The boy died the following day.
- Another boy was small and had difficulty gaining weight. His pediatrician recommended that he be allowed to eat whatever he wanted, as long as he was consuming calories of any type, even candy. As a result, candy bars and other junk food were his mainstays. By his teenage years, he had had half a dozen repeat concussions and, despite a great love of athletics, was not allowed to play further sports, for his own safety.
- A third boy grew up eating a Weston A. Price style traditional foods diet. One winter, he lost control of his sled going down a steep hill and slammed head first into the side of his house. After a short rest, he was perfectly fine.

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Calming Behavior in Children with Autism and ADHD The Electromagnetic Radiation-Lowering Protocol

By Katie Singer

n 2012, the Centers for Disease Control and Prevention (CDC) found that one in 88 children had autism. Two years later, in March 2014, the CDC's Morbidity and Mortality Weekly Report presented a nearly 30 percent increase in this number. Now one in 68 U.S. children has autism. The diagnosis is much more common in boys (one in 42—up from one in 54 in 2012) than in girls (one in 189). If this trend continues, then eventually most boys will have autism.

Here a pediatrician, a scientist and a software engineer explore the environmental factors that may worsen autism. The doctor offers a free protocol that may reduce the disorder's severity. TORIL JELTER, MD, has served as a general practitioner since 1985, and a pediatrician since 1990:

In 2006, a two-year-old boy who I had treated since birth was diagnosed with autism. The boy had delayed speech, high-pitched screaming and anxious behavior. During office visits, he crawled under my exam table to hide. An indirect test suggested that mercury was an issue—perhaps because the mother had eaten lots of mercury-laden fish during her pregnancy, hoping that the fish oil would make him smarter. A biochemist proposed chelating (eliminating) the mercury as a treatment for the child's autistic behavior. The parents asked me to monitor their son during this treatment. I declined, because I'd never heard of such a treatment. I knew about speech therapy and reinforcing good behaviors.

The family left my practice and found a pediatrician who monitored their child while the biochemist chelated him with DMSA.

Three years later, the family visited my office again. To my complete astonishment, the boy—now five years old—made fantastic eye contact with me and spoke normally. He had friends and performed above average without an aid in the classroom. I was shocked. I thought, if one child can recover from autism, so can many more.

Starting with a call to the biochemist, I began researching environmental and integrative medicine. I learned that in environments with less electromagnetic radiation (EMR), children with autism excrete greater amounts of heavy metals (a good thing). I learned that exposure to EMR from wireless technologies can impair a person's ability to detox.

I reviewed volumes of scientific studies and found that symptoms of heavy metal toxicity are similar to symptoms of EMR-exposure. I also saw an overlap between autism and EMRexposure. Scientists get curious with an overlap of just one biological dysfunction. I saw an overlap of fifty, including genetic alterations, retinal optic damage, increased inflammatory reactions, immune shifts, geno toxicity, increased oxidative stress, altered fetal development and increased auto-immune risks. The list goes on-which tells us that more research is warranted. Until then, there's no harm in trying a two-week EMR reduction trial (see sidebar below). I offer this protocol to families as my first approach for children with autism.

One of the first families who tried the EMR-Lowering Protocol had a four-year-old boy with an autism-spectrum disorder. He had slept poorly for two years. At night, he climbed into his parents' bed. So his parents had not slept well for two years, either. Within the first week of their EMR remediation trial, the boy slept through the night, in his own bed.

After two weeks, I prescribed a multi-vitamin and naturally processed fish liver oil. His appetite improved, and his bowel movements I learned that exposure to EMR from wireless technologies can impair a person's ability to detox.

THE TWO-WEEK ELECTROMAGNETIC RADIATION REDUCTION TRIAL

Before beginning the trial, parents need to fill out an autism treatment evaluation checklist to rate their child's sleep quality, behavior, mood and speech. Find a checklist at the Autism Research Institute's website, www.autismeval.com/ ari-atec/atec_form.pdf.

After the two-week trial, fill out the list again, then compare the two.

For an even simpler evaluation, parents can name three of their child's biggest problems and quantify each of them from zero to ten before the experiment—and then again two weeks later. (Zero means no problem; ten means the worst imaginable.)

- 1. Turn off Wi-Fi at night for at least twelve hours. For Internet access, use a CAT 5 or 6 Ethernet cable.
- 2. Unplug all cordless (DECT) phones. Keep all mobile devices at least six feet from children and off in the car. (If both parents agree, do not use any wireless technologies day or night for two weeks.)
- 3. From the breaker box, turn off the electricity to your child's bedroom at night if you can do so safely. Keep a flashlight beside your child's bed. (Note: if you have a "smart" digital, transmitting utility meter on your home, avoid being near the meter for prolonged periods. Learn about your state's regulations; get an analog meter restored. Learn more about "smart" meters at smartgridawareness.com, takebackyourpower.net and stopsmartmetersbe.com.)

became regular.

Like mobile phone signals, Wi-Fi signals can also cause cell membranes to leak and calcium ions to flow through them in a relatively uncontrolled manner.

Later, the boy's poor sleep returned, and he climbed into his parents' bed again. His mother thought he'd eaten too much sugar for Halloween. Then she learned that her older child had re-activated their Wi-Fi. Once she turned the Wi-Fi off again, the four-year-old started sleeping again, and his behavior calmed down. Within two months of reduced EMR-exposure and taking the multi-vitamin and fish oil, his cognitive level improved two grade levels. His school principal and teachers were shocked.

Another family had an aggressive, nonverbal ten-year-old child with autism. Every night, the boy ran around the house, screaming from 10 pm until 3 am. This family lived on a military base with high levels of background EMR, so I doubted that the protocol would have any effect. But the parents wanted to try it. They kept the electricity on in their son's room, but they eliminated their Wi-Fi at night and unplugged all of their cordless phones. Within three days, the boy's aggressive behaviors decreased, and he spoke a complete sentence for the first time.

Motivated, the family eliminated all of their wireless technologies day and night. I also prescribed pharmaceutical-grade, molecularlydistilled fish oil for this boy. After three weeks with the Wi-Fi router turned off and daily fish oil, his nightly screaming stopped. His speech, digestion and sleep continued to improve. His anxiety—and his mother's seizure disorder both decreased.

If an effect is not apparent within two weeks of the EMR-Reduction Protocol, I suggest that parents return to their original electronics usage, and again rate the child's three main problems from zero to ten. If no effect is observed, EMR may not be contributing to the child's illness, or the home's baseline EMR-exposure may be so high that moving to an area with less EMRexposure may be the only way to calm behavior.

Of course diet also plays a key part in children's health. The supplement to the January 2010 *Journal of Pediatrics* reports that 40-80 percent of children with autism have gastro-intestinal problems that can be difficult to diagnose. A diet that is not right for a child can increase her vulnerability to environmental exposures. Likewise, optimal nutrition can increase a child's resistance to such exposures.

This work has taught me to consider my office a lab: if a child becomes hyperactive in my waiting room and calms down outdoors, that gives me a clue that the home environment or my waiting room may need EMR reduction.

As researchers explore possible environmental contributors to autism, they'd be remiss not to include EMR. Indeed, we're all researchers now in our high-tech world. Our children are like canaries in the coal mine. We might welcome our children's agitated behaviors as indications that we need to use technology more safely. By making technology safer, we are also likely to improve health for ourselves, wildlife and the planet.

ANDREW GOLDSWORTHY, PhD, is a retired lecturer in biology from Imperial College in the UK:

Some genetic forms of autism spectrum disorders (ASD) can be accounted for by known mutations in genetic coding for ion channels, which result in an increased concentration of calcium in the neurons. This can lead to neuronal hyperactivity and the formation of sometimes inappropriate synapses, which in turn may lead to autistic behaviors.¹

Just after birth, a child's brain goes through an intense period of becoming aware of new sensory input. He recognizes his or her mother's face, her expressions, and eventually other people and their relationship to him or her.² During this process, the neurons in the brain make countless new connections, and the brain stores what the child learns. Connections that are rarely used are pruned. The patterns that remain could become fixed into the child's brain. This pruning process is completed by the time of sexual maturation.³

If the child is exposed to radiofrequency (RF) fields during this pruning process, the production of too many and often spurious signals will generate frequent random connections. These will not be pruned, even though they may not make sense. Because the pruning process in children exposed to RF fields may be more random, these children—who may have more brain cells than the rest of us—may

lack the mindset for normal patterns of social interaction. This may then contribute to the various autistic behaviors.

Like mobile phone signals, Wi-Fi signals can also cause cell membranes to leak and calcium ions to flow through them in a relatively uncontrolled manner.⁴ In the classroom, this may result in children's brains losing the ability to concentrate.

Further, electromagnetic radiation (such as that emitted by Wi-Fi, cell phones, cell towers and "smart" meters) may affect the body like light does at night—and inhibit melatonin production. Melatonin is a sleep hormone and a powerful antioxidant. It can reverse oxidative stress that results from radiation.⁵

While scientists explore further how EMR-exposure reduces melatonin production and study whether EMR-induced oxidative stress contributes to autism—along with many other questions—we ought to *first*, *do no harm* to our children.

Wi-Fi should therefore be considered an impediment to learning, rather than an aid. Wi-Fi may be particularly hazardous to pregnant teachers, since exposing the brain of a fetus or a very young child to EMR may prevent normal brain development.⁶

Because of genetic and environmental variability, not everyone will

RESOURCES

BabySafeProject.org posts an excellent video about the effects of in-utero EMR-exposure on children's behavior; it features Dr. Hugh Taylor, head of Yale Medical School's Ob/Gyn dept. See also www.ehtrust.org.

bioinitiative.org 1800 peer-reviewed studies about the bio effects of EMR-exposure, posted by Cindy Sage, MA and David Carpenter, MD.

Buie, T., "Evaluation, diagnosis and treatment of GI disorders in individuals with ASDs: a consensus report," *Pediatrics*, 2009-1878c: Doi:10.1542/peds.

Herbert, Dr. Martha (pediatric neurologist at Harvard Medical School) and Cindy Sage, MA (coeditor of the BioInitiative Reports), "Autism and EMF? Plausibility of a pathophysiological link—Parts 1 and 2," Pathophysiology 2013.

electronicsilentspring.com Posted by Katie Singer, includes an international hot list and her papers posted after *An Electronic Silent Spring's* publication (Rudolph Steiner Books, 2014)—about EMR-exposure and wildlife, telecom law, how electronics impact climate change, cell tower fires, fertility and telecommunications, etc.

Mallery-Blythe, Dr. Erica, "Children, Radiation and Health." Excellent talk from a British MD. https://www.youtube.com/ watch?v=sNFdZVeXw7M

resetyourchildsbrain.com Child psychiatrist Dr. Victoria Dunckley, MD, author of *Reset Your Child's Brain*, presents her fourweek electronic fast to end meltdowns, raise grades and boost social skills by reversing the effects of electronic screen-time.

saferemf.com Peer-reviewed studies about EMR-exposure posted by Dr. Joel Moskowitz, researcher at UC-Berkeley's School of Public Health.

zonein.ca Cris Rowan works with parents, teachers and students to balance tech time with movement and time in nature.

For a Spanish translation of "Calming Behavior in Children wtih Autism and ADHD:" http://www.electronicsilentspring.com/primers/wi-fi-schools/a-los-ninos-con-autism/

PETER SULLIVAN is a software designer:

From birth, our elder son (born in 1996) got triggered easily, especially by noises and touch. At three, he was kicked out of preschool and diagnosed with sensory integration disorder (a symptom of autism). Our younger son (born in 1999) seemed to develop normally. Then, at four, he regressed and stopped playing with other children. He, too, was diagnosed with autism.

I'd thought that autism was entirely genetic, and that there was nothing we could do about it. Then I started reading about healthy children regressing into autism, and others who'd been diagnosed with the disorder and recovered from it.

Meanwhile, I struggled with multiple food allergies. I heard constant buzzing. Tests showed that everyone in our family had high levels of toxic metals. Over several years, my wife and I detoxed ourselves and our sons. Our elder son calmed down, and our younger son started to make friends again. Everyone felt better.

Still, something was off for me. Sleep had become an issue.

For nearly two decades, I worked in the computer industry. Four years after detoxing from heavy metals, I started to realize that my nervous system got overloaded around flickering fluorescent lights and wireless devices.

We turned off our Wi-Fi and used Ethernet cables for Internet access. We quit cordless DECT phones and went back to corded landlines. We stopped putting cell phones near our heads, put them in airplane mode at night, and never used them with a bluetooth. We got demand switches to turn off the electricity to our bedrooms at night. I'm still exploring how to operate a solar power system without degrading power quality, creating electrical noise and causing biological harm.

Both of our teenagers understand the dangers of cell phone use; and they both have them. At school, they're bombarded with Wi-Fi; but at least their night-time EMR-exposure is very low.

Neither of our sons has autism symptoms now. Both have become high-performance kids. Our elder son will start his second year of college this fall.

In Silicon Valley, if one in one hundred iPhones didn't work properly, the assembly line would be studied systematically, and the problem's source would be eliminated in a month. We need to respond to autism in the same way. We need to find the source of autism's dramatic increase and eliminate it—and give our children a healthy chance. As Frank Clegg, former president of Microsoft Canada, says, "We're not citizens for no technology. We're citizens for safe technology."

Katie Singer's books include An Electronic Silent Spring, Honoring Our Cycles and The Garden of Fertility. She's currently completing a paper about policies for safer school environments. She speaks and teaches internationally. electronicsilentspring.com and gardenoffertility.com.

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CANCER RISK FROM CELL PHONE RADIOFREQUENCY RADIATION

In May, the National Toxicology Program (NTP) of the National Institutes of Health reported partial findings from a \$25 million study of the cancer risk from cell phone radiofrequency radiation (RFR). Controlled studies of rats showed that RFR caused two types of tumors: glioma and schwannoma. Scientists report that the results "could have broad implications for public health."

Otis W. Brawley, MD, chief medical officer of the American Cancer Society said, "The NTP report linking radiofrequency radiation to two types of cancer marks a paradigm shift in our understanding of radiation and cancer risk. The findings are unexpected; we wouldn't reasonably expect non-ionizing radiation to cause these tumors."

According to Dr. Joel Moskowitz, researcher at UC-Berkeley School of Public Health, "The study's results reinforce the need for more stringent regulation of radiofrequency radiation and better disclosure of the health risks associated with wireless technologies."

For more comprehensive info on this study, visit saferemr.com.

If you use a mobile phone:

- 1. Keep it in airplane mode. Program it to operate as a voice messaging device that notifies you every two hours if you've got messages. (When on, a cell phone will constantly check in with the nearest cell tower to see if you've got a message—and you will constantly receive EMR-exposure.)
- 2. Keep mobile devices off in moving vehicles. At every mile, when the phone connects to a new cell tower, it goes to maximum power. Much of the radiation gets trapped in the car (a metal box) and bounces around.
- 3. Keep mobile devices out of your bedroom. Don't charge them while you sleep. Don't charge them on walls shared with your bedroom.
- 4. Beware of second hand exposure to pregnant women and children.
- 5. Follow Dr. Jelter's EMR-Reduction Protocol.

Zika and the Rush to Judgement

Not infrequently, individuals who assertively proclaim that "the science" and "the facts" buttress their position on a given topic do so with the intention of shutting down debate and casting aspersions on those who ask inconvenient questions.¹ How often have we been told that the case is closed because "the science says so"? Yet a 2010 editorial in *The British Journal of Psychiatry* openly admits that published scientific studies often present false results due to biases embedded within the "social fabric of science."²

Some of the explanations for skewed results are fairly obvious. Publication bias, for example, involves the tendency not to publish studies that generate negative or null results,³ and no one would deny that funding sources also can give rise to blatant conflicts of interest.⁴ There are other less overt influences as well. Scientific journals with a high "impact factor" are less likely to accurately report effect sizes (the magnitude of difference between two groups) than low-impact-factor journals.² The country in which a study is conducted also plays a role; North American studies overestimate effect sizes by roughly 10 percent compared with studies conducted outside of the U.S.² This is important because effect sizes attest to a study's practical (as opposed to statistical) significance.5

As renowned theoretical physicist Carlo Rovelli reminds us, "The very expression 'scientifically proven' is a contradiction in terms." Rovelli says, "The core of science is the deep awareness that we have wrong ideas [and] prejudices."⁶ When those prejudices remain unacknowledged or are denied outright, their influence on the scientific enterprise in turn goes unexamined.

INTRODUCING ... THE ZIKA VIRUS

Careful scrutiny of scientific reporting seems warranted in the current medicalpharmaceutical zeitgeist, as the uncritical rush to judgment about the Zika virus reminds us. The virus's reported arrival on Latin American soil in 2015 has prompted a steady and increasingly heavy-handed barrage of alarmist headlines and agency responses. On February 1, 2016, the World Health Organization (WHO) quickly issued its highest level of warning for Zika, declaring the virus to be a public health emergency of international concern—only the third time that the WHO has put forth an alert of this magnitude.⁷ The U.S. Centers for Disease Control and Prevention (CDC) followed suit on February 8 by elevating its Zika response to the highest level.⁸

The Zika virus has been around for almost seventy years without attracting much attention. Zika was first isolated from rhesus monkeys by a Rockefeller Foundation-supported research institute in Uganda in the late 1940s.^{9,10} At present, the Zika virus is a commodity that can be purchased on the Internet for about six hundred seventy dollars.¹¹ In the very small number of human cases of Zika infection documented through 2007, infected individuals either exhibited no symptoms or had mild symptoms that spontaneously disappeared.

The current bout of Zika-related concerns has to do with the virus's alleged link to a surge in northeastern Brazil of an otherwise rare brain-related birth defect called microcephaly (smaller-than-average head circumference). The previously benign Zika virus also is purported to contribute to Guillain-Barré syndrome in some contexts.

From the beginning of the recent news coverage, the mainstream media have displayed a convoluted logic toward Zika. On the one hand, reporters have been splashing down headlines that present the virus as "insidious, cunning, and evil"¹² (see sidebar, page 63) while communicatThe Zika virus has been around for almost seventy years without attracting much attention. When a group of Brazilian investigators used an existing database to examine microcephaly patterns in sixteen thousand babies over a four-year period (2012 - 2015),they found more microcephaly than expected in all four years, with a peak in 2014—before the charted arrival of the Zika virus in Brazil.

ing the WHO conception of Zika as "guilty until proven innocent."¹³ On the other hand, some reporters also grudgingly admit (buried outside of the limelight) that the case against Zika is not "airtight"¹³ and remains "inconclusive."¹⁴

The scientific journal *Nature* reported in late March that the true magnitude of birth defects in Brazil is "elusive" because the country's muddy microcephaly figures represent a moving target and lack a meaningful baseline.¹⁵ Even more confusingly, when a group of Brazilian investigators used an existing database to examine microcephaly patterns in sixteen thousand babies over a four-year period (2012–2015), they found more microcephaly than expected in all four years, with a peak in 2014—before the charted arrival of the Zika virus in Brazil.¹⁶

At first glance, an article in the April 13, 2016 issue of the influential New England Journal of Medicine would seem to definitively lay to rest any doubts about whether Zika is the guilty party.17 After reviewing "available evidence," the study's authors conclude that a causal relationship exists between prenatal Zika virus infection and serious brain anomalies. Interestingly, one of the factors that the authors cite to shore up their conclusions is the lack of "an alternative explanation...that could explain the increase in cases of microcephaly." As a means of "manufacturing consent,"18 it is certainly effective to communicate-in a highly regarded peer-reviewed publication that instantly generates press releases worldwide-the conclusion that there are no other possible explanations for the observed outcomes. As a statement of fact, however, the assertion ignores at least two broad risk factors for microcephaly long recognized by mainstream experts, factors that are prevalent in northeastern Brazil: severe malnutrition and toxic exposures during pregnancy.^{19,20}

MICROCEPHALY AND MALNUTRITION

In normal pregnancies, a baby's head grows "because the baby's brain grows."²⁰ As the photos in the *Wise Traditions* "Healthy Baby Gallery" routinely illustrate, pregnant women who consume a nutrient-dense whole foods diet produce robust children with beautifully formed and appropriately sized heads and alert and happy temperaments. Malnutrition, on the other hand, negatively affects brain growth (both in utero and during infancy) and can have potentially irreversible implications for intellectual development.²¹ Animal sources of vitamin A play a particularly crucial role in fetal development. Vitamin A deficiencies result in improper craniofacial development and numerous other abnormalities.²²

Brazil's impoverished northeast-where Zika has drawn the most attention-represents the largest pocket of rural poverty in Latin America, a situation that is likely aggravated by the country's current economic collapse. Although some reports suggest that nutrition trends in the northeast have been improving,²³ and others are documenting the rise in obesity in the middle class,²⁴ chronic malnutrition remains endemic and has advanced from the northeast's poorest rural areas to the urban peripheries.²⁵ The standard food intake pattern in Brazil is based on rice or manioc, beans, coffee, bread, beef and, increasingly, sugar in the form of soft drinks and fruit juices,²⁶ none of which (except for beef liver) are noteworthy for their vitamin A content.

A study in which rats were fed a "regional basic diet" (RBD) comparable to the imbalanced and nutrient-poor diet commonly consumed by poor children in northeastern Brazil found that brain weights in the experimental rats were about 20 percent lower than those of controls, and the mortality rate among RBD rat pups was 24 percent.²⁷ The researchers concluded that the inadequate regional diet produces nutritional dwarfism and severe malnutrition. Blaming chronic starvation, a pediatrician has characterized the region as "the Pygmy northeast," stating that two generations of mothers would need to be adequately fed to reverse the dwarfism trend and to "normalize the race."25 Other nutrition studies in under-five children in the northeast have documented stunting in about 10 percent of children²⁸ and high levels of childhood anemia.29

TOXINS DURING PREGNANCY

In response to an upward trend in pertussis infections in Brazil, the country's Ministry of Health issued a policy in late 2014 mandating that all pregnant women receive the Tdap vaccine between the twenty-seventh and thirtysixth weeks of pregnancy, or up to twenty days prior to the expected due date.³⁰ The Tdap combination vaccine is intended to protect against tetanus, diphtheria and pertussis. In developing the new policy, Brazil followed the lead of the U.S., which in 2013 began recommending that pregnant women receive the Tdap vaccine in their third trimester of pregnancy.³¹

Brazil started implementing its Tdap policy in 2015, using a Tdap formulation manufactured by GlaxoSmithKline (GSK).³⁰ Although the GSK Tdap vaccine contains other troubling ingredients—including formaldehyde (a known human carcinogen) and polysorbate 80 (an industrial surfactant that encourages passage across the blood-brain barrier)³²—its use of aluminum adjuvants is especially worrisome because of aluminum's known teratogenic properties^{33,34} and status as a perinatal toxicant.³⁵ The risks posed by aluminum adjuvants in vaccines have long been underestimated.³⁶ The WHO lists exposure to toxic chemicals and heavy metals as one of the most common causes of microcephaly.³⁷

GSK admits that "there are no adequate and well-controlled studies [of the Tdap vaccine] in pregnant women."³⁰ In fact, no vaccine recommended for pregnant women has undergone testing to assess the potential for fetal harm,³⁸

The WHO lists exposure to toxic chemicals and heavy metals as one of the most common causes of microcephaly.

A SAMPLING OF MEDIA REPORTING ON THE ZIKA VIRUS					
HEADLINE	MEDIA OUTLET	EXCERPTS			
Zika virus "spreading explosively" in the Americas, WHO says ¹⁴	New York Times (Jan. 28, 2016)	"The aim here is to ensure that we are ahead of the curve."			
Florida gets ready to fight Zika virus as Rick Scott declares emergency in four counties ⁵⁰	Sunshine State News (Feb. 3, 2016)	"We know that we must be prepared for the worst even as we hope for the best."			
UN tells Latin American coun- tries hit by Zika to allow women access to abortion ⁵¹	The Guardian (Feb. 5, 2016)	"Health authoritieshave advised wom- en to avoid getting pregnant."			
Obama seeks \$1.8 billion for Zika re- sponse; CDC ups emergency level ⁵²	CIDRAP (Feb. 8, 2016)	"The Obama administration said it has been ag- gressively working on Zika virus response"			
GOP skeptical of new funding for Zika ⁵³	The Hill (Feb. 9, 2016)	"Usually they come up with the request for money before they come up with a plan."			
Why Zika is "much more insidious, cunning and evil" than Ebola ¹²	The Washington Post (Feb. 16, 2016)	"Even at this point, scientists are not able to say definitely that Zika is the cause of the problems."			
Pope suggests contraception can be condoned in Zika crisis ⁵⁴	The Guardian (Feb. 18, 2016)	"Unlike abortion, 'avoiding pregnancy is not an absolute evil' and in certain cir- cumstances it may be 'the lesser evil.'"			
Zika virus: Micocephaly may be "tip of the iceberg" for infant problems ⁵⁵	Live Science (March 4, 2016)	"Usually, viral infections don't cause only one problem."			
The Zika virus doesn't re- spect borders—It's time for immediate U.S. action ⁵⁶	Los Angeles Times (March 21, 2016)	"Zika is just the latest manifesta- tion of a new world order."			
Doctor urges 2016 Olympics should be moved due to Zika virus ⁵⁷	Fox Sports (May 10, 2016)	"Such a gathering of people in Rio could have devastating worldwide consequences."			

A teratogenic larvicide called Pyriproxyfen had been added to the drinking water in Brazil's northeast in 2014 with the express purpose of causing malformations in developing mosquitoes.

even though vaccine package inserts routinely list encephalopathy (a general term describing abnormalities in the structure or function of the brain) as a known adverse reaction for almost every vaccine on the market (Table 1). Interestingly, one of the U.S. states that makes it hardest for residents to claim a vaccine exemption (Mississippi) has a notably higher prevalence of microcephaly per ten thousand live births (sixteen per ten thousand) than most other states, where prevalence mostly ranges from about one to six in ten thousand.³⁹ It seems reasonable to ask, therefore, whether there is an association between administration of Tdap during pregnancy and subsequent birth defects such as microcephaly-and to demand that the potential risks be seriously evaluated.

Given Brazil's outsized role as a global exporter of chemically managed agricultural products such as soybeans and sugar, Brazilian women have ample opportunity for exposure to pesticides and other chemicals during pregnancy. Brazil is, in fact, the world's largest purchaser of herbicides, insecticides and fungicides, including highly toxic products such as paraquat and methyl parathion, which are banned in other countries for health reasons.⁴⁰ Industrial agriculture has particularly "flourished" in the northeast, where scientists routinely find water canals contaminated with pesticides and higher rates of cancer deaths in farming towns.⁴⁰ Brazil is also the world's second largest grower of genetically modified (GM) crops after the U.S. Roughly 90 percent of the country's soybean and corn crops are GM. Many GM crops are "Roundup-ready," which means that glyphosate (Roundup's active ingredient) is widely used. Because many weeds have developed resistance to Roundup, Brazilian farms increasingly use Roundup in conjunction with other toxic chemicals.⁴⁰ Brazil's National Cancer Institute has conceded, along with the WHO, that glyphosate is carcinogenic,⁴¹ and Brazil's public prosecutor called for a ban on glyphosate use in 2014. Glyphosate is clearly associated with birth defects, including microcephaly.⁴²

In a horrible twist of irony, mosquito-borne diseases often provide an excuse for widespread use of larvicides. In February 2016, as the Zika drumbeat was growing louder, a group of Argentine physicians pointed out that a teratogenic larvicide called Pyriproxyfen had been added to the drinking water in Brazil's northeast in 2014 with the express purpose of causing malformations in developing mosquitoes.⁴³ The ensuing malformations observed in babies could hardly be a coincidence, the physicians' report argued. The physicians rejected chemical control measures as counterproductive for both the environment and human health.

"NO ALTERNATIVE EXPLANATIONS"? Notwithstanding the bland assurances of

TABLE 1. Encephalopathy-related adverse reactions listed by vaccine manufacturers

TYPE OF VACCINE	MANUFACTURER	ENCEPHALOPATHY-RELATEDADVERSEREACTIONS*
M-M-R® II: Measles, mumps and rubella Recombivax HB®: Hepatitis B Gardasil: Human papillomavirus Varivax: Varicella/chickenpox Infanrix (DTaP): Pertussis, tetanus	Merck Merck Merck Merck GlaxoSmithKline	Encephalitis, encephalopathy Encephalitis Acute disseminated encephalomyelitis Encephalitis Encephalopathy
and diphtheria Pentacel: DTaP, inactivated poliovirus and Hib combo	Sanofi Pasteur	Encephalopathy
Flu vaccines -Flumist -Afluria -Agriflu -Fluarix	Medimmune Merck Novartis GlaxoSmithKline	Vaccine-associated encephalitis Encephalopathy Encephalomyelitis and transverse myelitis Encephalomyelitis

*Listed in package insert, or based on clinical studies or postmarketing experience

The New England Journal of Medicine authors, who present Zika as the only possible explanation for the reported cases of microcephaly,¹⁷ there are numerous reasons to consider other more likely causes, many of which have been ably investigated and summarized by blogger Jon Rappoport.44 This article reviews only a few of the most obvious suspects. Other possible culprits put forth in the alternative press include industrial pollution from the petrochemical industry,45 the 2015 release in Brazil of GM mosquitoes (with unknown ecosystem consequences)9 and even bioterrorism.46 Where viral scares are concerned, history also seems to repeat itself. During the SARS panic in the early 2000s, for example, a Wise Traditions article noted that industrial chemicals and emissions could far better explain the SARS syndrome than the putative SARS virus.47

It is important to keep in mind that it has yet to be determined whether Brazil's spike in microcephaly cases is actually "real," and also to remember that scientists have never previously found an association of microcephaly with Zika.⁴² As of late May 2016, only four hundred four cases of microcephaly had been confirmed (out of almost five thousand suspected cases) and of the four hundred four, only seventeen (4.2 percent) had any relationship with Zika.⁴² Moreover, the twenty-five thousand cases of microcephaly observed annually in the United States (as reported by the American Academy of Neurology in 2009)⁴⁸ require some explanation but cannot be blamed on the Zika virus.

The New England Journal of Medicine article admits that by shifting from a mere hypothesis to actually asserting Zika's causal role allows for "an intensified focus on prevention efforts, such as the implementation of vector control, the identification of improved diagnostic methods, and the development of a Zika virus vaccine."¹⁷

Picking apart this statement, it is easy to see that the companies producing larvicides, medical supplies and vaccines are going to have a field day with Zika. Scientists in India have already reported the development of two candidate vaccines.⁴⁹ Meanwhile, young women living in Brazil and other countries where Zika has made an appearance will be forced to rely "on the same…primary care nurses and physicians [they have] always trusted for care"⁷—even when those providers betray women's trust by foisting toxic chemicals on developing babies and saying nothing about the importance of meaningful nutrition. Scientists have never previously found an association of microcephaly with Zika.

SHOPPING GUIDE UPDATES

- 1. New phone number for The Rejuvenation Company: (408) 320-4805
- 2. New phone number for Thousand Hills Cattle Company: (877) 854-8422
- 3. Bone Broths Co. is now Kettle & Fire with a new phone number: (888) 254-3419
- 4. New phone number for Roseda Farm: (410) 962-5530
- 5. New phone number for Simple Squares: (888) 966-7622
- 6. New phone number for Jennies: (570) 457-2400
- 7. New phone number for Wonderfully Raw: (855) 293-5577

Please contact Carolyn Graff at shoppingguide@westonprice.org with updates and additions to the Shopping Guide.

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Vaccination Vpdate

HPV VACCINES - WHY OH WHY ARE THEY ON THE MARKET AT ALL? By Leslie Manookian

In 2006, Merck introduced Gardasil, the first vaccine for human papillomavirus (HPV), in the U.S. Not long thereafter, GlaxoSmith-Kline introduced a similar vaccine called Cervarix.

HPV is a virus that causes genital warts and HPV infections are hypothesized to progress into cervical cancer; however, the evidence indicates that cervical cancer can develop without HPV infection, which casts doubt on a causal connection. One needs to have other risk factors such as smoking, oral contraceptive use, a weakened immune system, other infections or high-risk behaviors in order to develop an HPV-related cancer.

HPV infection occurs in most sexually active adults and is cleared from the body with no interventions by over 90 percent of people within two years of infection. Since the 1960s when Pap tests became a routine part of healthcare, cervical cancer rates have fallen by about 75 percent. In 2013, an estimated twelve thousand women contracted cervical cancer, resulting in an estimated four thousand deaths. Importantly, most of these women had never had a Pap, or at least not had one in five years. Less than 3 percent of the estimated 1.6 million cancer cases and the half million cancer deaths yearly are related to HPV infection.

When it comes to HPV vaccines, the news gets worse and worse. These vaccines are linked to primary ovarian failure (that is, premature menopause), Guillain-Barré Syndrome (GBS), death and reports of many more serious adverse reactions and emergency room (ER) visits more than other vaccines. Yet public health officials continue to proclaim their safety. As the evidence of danger mounts, it is becoming increasingly clear that these vaccines are not about public health, but rather wealth—for the vaccine makers.

In recent years, scientists have examined the brain tissue of young women who died not long after receiving Merck's Gardasil vaccine. Dr. Lucija Tomljenovic examined the brain tissue of a fourteen-year-old girl who died two weeks after her second HPV booster and a nineteenyear-old woman who died six months after her When it comes to HPV vaccines, the news gets worse and worse.

WAPF POLICY ON VACCINES

The Weston A. Price Foundation has received emails or letters from about one dozen individuals objecting to the strong stance we have taken against vaccines. We respectfully request that these individuals use the same lens through which they view mainstream nutritional advice, watch the films we recommend and read the research we present. Moreover, please understand that no vaccinated-versus-unvaccinated study has ever been conducted, that federal law recognizes that vaccines injure and kill, that a federal program has paid out over three billion dollars to vaccine victims, and that those who manufacture and administer vaccines bear zero liability for them. Vaccines injure and kill far more people than governments and health authorities openly admit, but no one can tell you in advance what kind of injury you or your child might suffer.

Your children are depending on you to make the right decisions for them and to do your research on any medical procedure before giving your consent. Of course you need to protect them from illness, but the best way to do this is with our dietary principles, not with vaccines containing a host of harmful ingredients. Once these ingredients go into the bloodstream of your child, you cannot take them out.

We encourage you to watch *The Greater Good* as well as the new movie *Vaxxed: From Cover Up to Catastrophe,* which documents fraud and cover-up at the U.S. Centers for Disease Control and Prevention regarding the vaccine-autism link. Parents of vaccine-injured children—who will be taking care of these children throughout adulthood—will tell you that no vaccine is worth the risk.

third booster. Tomljenovic found evidence of inflammation and an autoimmune reaction in the brain. Tomljenovic and her team reported the fact that the vaccine triggered an inflammatory and autoimmune response wherein the body attacked its own brain tissues, resulting in death.

It is worth noting that these two patients sustained a variety of adverse reactions to the first shot such as headaches, dizziness, vomiting, confusion, memory lapses, speech problems, weakness, fatigue, chest pains, tachycardia and more, and that these symptoms worsened following the subsequent shots.

In medicine, one of the generally accepted means of testing adverse reactions to drugs is to give the drug, monitor any reactions, wait, then give the drug again. If the same adverse reactions appear or worsen, it is accepted that the medicine caused the adverse reactions. In the scientific world, this is known as challenge and re-challenge and, together with the brain tissue samples, suggests quite strongly that the vaccine caused these young women's deaths.

Here is what the researchers found in the brain tissues: "strong evidence of an autoimmune vasculitis triggered by the cross-reactive HPV-16L1 antibodies binding to the wall of cerebral blood vessels. In addition, there was clear evidence of the presence of HPV-16L1 particles within the cerebral vasculature with some HPV-16L1 particles adhering to the blood vessel walls." In layman's terms, they found antibodies to viral strains in the Gardasil vaccine in the patients' brains and evidence of an autoimmune reaction. They found particles of the vaccine in the brains as well. Both of these females were previously healthy.

Scientists insist that the blood-brain barrier cannot be breached, but these results suggest otherwise. Even more troubling is the fact that these tragic events occurred in healthy females, one a fully mature ninteen-yearold. Imagine what is happening in newborn babies whose blood-brain barriers won't be fully developed for several years.

Health authorities insist this is nothing to worry about.

Other researchers have reported on the risk of developing GBS after HPV vaccines. In particular they reported the following: "there was a nearly 2.5-10 times greater risk of acquiring GBS within 6 weeks after quadrivalent [Gardasil] vaccination when compared with general population. In addition, quadrivalent [Gardasil] vaccination was associated with approximately 8.5 times more emergency department visits, 12.5 times more hospitalizations, 10 times more life-threatening events and 26.5 times more disability than meningococcal C vaccination."

But perhaps their most illuminating remark is this conclusion: "We remain of the considered opinion that health policy planners in India would be well advised to carefully assimilate independent opinion on this subject that is not influenced by vaccine manufacturers, who stand to gain enormously from implementation of this intervention in vast populations."

VACCINE RESOURCES

The following is a list of links to resources relating to vaccine laws, vaccine exemption rights and vaccine injury lawyers. The first is a link to the National Vaccine Information Center's (NVIC) state vaccine requirements page which is updated regularly. The second link is to vaccine exemption rights attorney Alan Phillips. The third group is a list of vaccine injury lawyers with the first in this group being a link to a federal list of vaccine injury lawyers and then links to some of the biggest firms that represent vaccine injury cases.

VACCINE LAWS: NVIC State Vaccine Requirements http://www.nvic.org/vaccine-laws/state-vaccine-requirements.aspx

VACCINE EXEMPTIONS: Exemption Rights Attorney Alan Philips http://www.vaccinerights.com/attorneyphillips.html

VACCINE INJURY LAWYERS:

FEDERAL LIST OF VACCINE INJURY ATTORNEYS – list of all vaccine injury attorneys in U.S. http://www.uscfc.uscourts. gov/sites/default/files/Vaccine%20Attorneys.pdf

Shoemaker and Associates – shoemakerassociates.com Conway, Homer and Chin-Caplan, P.C. – ccandh.com Carol L. Gallagher – attorneyforvaccineinjuries.com Maglio Christopher and Toale – mctlawyers.com/vaccine-injury Curtis Webb – Vaccine Injury Law – curtisrwebb.com Richard Gage and Associates – richardgage.net Andrew D. Downing –nationalvaccineinjurylawyer.com Vaccine Injury Alliance – vaccineinjury.org Their meaning is clear: health officials, the vaccine makers and their minions are pushing vaccines and influencing science—for the benefit of the vaccine makers.

GBS is a very serious dysfunction of the immune system in which the immune system attacks part of the nervous system resulting in a wide range of debilitating symptoms including weakness, tingling, and ultimately paralysis and even death. It is a known side effect of other vaccines but U.S. health officials say it is a coincidence following HPV vaccines.

One of the most tragic conditions reported following HPV vaccines is that of primary ovarian failure, or in common language, premature menopause. This has occurred in several young women, even in two sisters whose sexual development had been totally normal-until Gardasil. Treatment with hormone replacement therapies had no impact and these young women will never have children. They had no genetic abnormalities that could explain the condition but some of the patients have evidence of auto-antibodies suggesting the origin is an autoimmune condition triggered by the HPV vaccine. The patients also experienced nausea, headaches, sleep disturbances, pain and cognitive and other "psychiatric disturbances." Of course these are frequently reported side-effects of vaccines in general and HPV vaccines in particular, but again health officials dismiss them as coincidental.

A new study out of Canada clearly shows just how dangerous HPV vaccines are. The study looked at 195,270 girls who received HPV vaccination. Of the vaccinated girls, there were 958 hospitalizations and 19,351 emergency room visits. Interestingly, the authors state that only 198 adverse events were reported. Most parents don't take their children to the ER unless there is a reason. Perhaps this shows how vaccine reactions are downplayed by hospitals. One ER nurse has even reported that hospitals systematically underreport vaccine reactions.

Nine hundred fifty-eight hospitalizations and 19,351 visits to the ER represent 20,309 serious adverse events within forty-two days (the study period) following HPV vaccination. That means that 10 percent of HPV vaccine recipients in this study suffered a reaction that required a visit to the ER or hospitalization—and that only includes the first forty-two days after vaccination. Yet what did the study authors conclude? "Rates of AEFI [adverse reactions] after HPV immunization in Alberta are low and consistent with types of events seen elsewhere." On what planet do 10 percent of recipients of a medical procedure requiring a visit to the ER or hospitalization mean "low rates of adverse reactions"? Only on the pseudo-scientific medical planet of big pharma.

There are several important conclusions to draw from all these studies. HPV vaccines are capable of causing serious adverse reactions including catastrophic disability and death. Vaccine reactions are often not reported by hospitals. Vaccine makers and the health authorities who promote, mandate and monitor the safety of these vaccines downplay adverse reactions to vaccines. As the saying goes, buyer beware, perhaps with HPV vaccines more than any other product.

Leslie Manookian is a successful Wall Street business executive turned award-winning filmmaker. She conceived, wrote and produced "The Greater Good"—a documentary exploring vaccines. She is a member of the board of directors of the Weston A. Price Foundation and has been a WAPF chapter leader since 2008. Active on the legislative front she works to protect rights to medical and health freedom at home in Idaho and across the nation and has played a leading role in successfully stopping vaccine tracking legislation as well as helping gain consumer access to raw milk. She has been featured in dozens of television, radio, print and Internet interviews as well as appearing at numerous conferences. She holds an MBA from the University of Chicago, a BA from Middlebury College and M.L.C.Hom from Lakeland College of Homeopathy.



WE DON'T VACCINATE

We Don't Vaccinate is a sensitive, expressive and discerning documentary. Strictly factual, it stays solely on the vaccine track tackling the contemporary vaccine issue like no other film before it. Out of Germany, the originating homeland of Merck & GlaxoSmithKline, Michael Leitner's documentary, We Don't Vaccinate deserves a widespread worldwide audience so that the mass hypnosis which allows these pharmaceutical companies to continue these crimes can finally come to an end.

\$3.00 to rent, \$8.00 to download, vimeo.com/ondemand/wdv

Farm and Ranch IS GLYPHOSATE LEGAL?

By Donald Sutherland

This year the U.S. Environmental Protection Agency (EPA), which licenses and regulates Roundup . . . must decide whether the herbicide is safe for prenatal, infant, child and adult consumption in food crops and productsand the agency is stalling.

It is springtime and farmers are applying millions of pounds of the world's most common herbicide to the agricultural land in the United States. This year the U.S. Environmental Protection Agency (EPA), which licenses and regulates Roundup and the seven hundred fifty other products containing glyphosate (and the many adjuvants and surfactants added to it), must decide whether the herbicide is safe for prenatal, infant, child and adult consumption in food crops and products—and the agency is stalling.

The European Commission is also stalling, delaying a reauthorization of glyphosate under a peer review re-evaluation of the EU's list of approved active substances. Currently, France, Italy, Sweden and the Netherlands are opposed to the relicensing of glyphosate, while Germany is abstaining.

In the U.S., the EPA is under a federal mandate requiring the agency to re-evaluate all pesticides on a fifteen-year cycle. The federal regulatory agencies (EPA, USDA, FDA) that establish food safety regulations claim the world's most commonly used herbicide is as safe as table salt if used according to the directions.

CONFLICTING ASSESSMENTS

So why doesn't the EPA just go ahead and reregister the license for glyphosate use in agriculture?

One reason is that in 2015 the World Health Organization's International Agency for Research on Cancer (IARC) assessed glyphosate and its products as a probable human carcinogenic health risk, and this year the California state government intends to list the herbicide as a carcinogen.

The California Office of Environmental Health Assessment (OEHHA) intends to list glyphosate as a carcinogen under the mandates of state law Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986).¹

So far, the EPA hasn't agreed with the California OEHHA and World Health Organization's IARC assessment of glyphosate and its products as a human carcinogenic health risk.

Clinical, peer-reviewed studies by science, industry and government bodies show that glyphosate kills plants and bacteria by interfering with an enzyme producing aromatic amino acids, which are essential for life in plants, bacteria and humans. The EPA and glyphosate manufacturers admit that consumers absorb glyphosate in minute amounts from food and drinking water, but assure us that it harms only plant life and passes harmlessly through the body in urination.

"All labeled uses of glyphosate are safe for human health and supported by one of the most extensive worldwide human health databases ever compiled on an agricultural product," states Dr. Philip Miller, vice president global regulatory affairs for Monsanto, the manufacturer of Roundup.

Not so, says an international contingent of scientists. These scientists, using peer-reviewed clinical data, defend the IARC assessment that glyphosate poses a human health risk. They argue that the U.S. EPA and the European Food Safety Authority (EFSA) have cited biased industry-sponsored clinical data to argue that glyphosate is safe, and didn't consider the lowdose effects in prenatal, infants and children.

"The science consisted solely of toxicologic studies commissioned by the herbicide manufacturers in the 1980s and 1990s and never published, not an uncommon practice in U.S. pesticide regulation," say Philip J. Landrigan, MD, and Charles Benbrook, PhD in their *New England Journal of Medicine* report "GMOs, Herbicides, and Public Health."²

"These studies predated current knowledge of low-dose, endocrine-mediated and epigenetic

effects and were not designed to detect them. The risk assessment gave little consideration to potential health effects in infants and children, thus contravening federal pesticide law," Landrigan and Benbrook say.

The exponential increase in the agricultural use of glyphosate over the past two decades and its correlation with human health issues involving neurological, intestinal and cancer disorders, is hotly contested by both sides of the glyphosate safety debate.

"I personally believe that glyphosate is the main reason why we have an epidemic in autism. I think it's also responsible for the rise in non-Hodgkin's lymphoma, pancreatic cancer, thyroid cancer, inflammatory bowel disease, ADHD, COPD, Alzheimer's, diabetes, obesity and probably several other chronic conditions that we face today," says Stephanie Seneff, a senior research scientist at the Massachusetts Institute of Technology (MIT).

"I don't agree with the WHO's designation as probably carcinogenic," she says. "I think it is definitely carcinogenic."

HIGH STAKES

The stakes are huge in this politicalscientific schism. The future of the global, proprietary, agro-industrial, glyphosate-ready, genetically modified organism (GMO) crops lies in the resolution of the split between the World Health Organization's IARC (claiming glyphosate causes cancer) and the U.S. EPA and EFSA (claiming glyphosate is safe).

Food manufacturers using GMO crops also

have a huge stake in the outcome of this debate. Over 90 percent of U.S. corn, soy and sugar beet crops are grown with glyphosate, and these GMO crops and their products constitute over 80 percent of processed food items. Glyphosate is also used as a desiccant in the production of wheat and other grains.

Kellogg's, a Fortune 500 food manufacturer, acknowledges that grains purchased on the open market containing herbicides including glyphosate are consumed by customers in their processed products. "Nearly all crops in the U.S. are treated with herbicides and pesticides, and may leave behind very low residue levels on some foods," says a Kellogg Company customer service spokesman.

"In the U.S., the acceptable level of pesticide and herbicide use in crops is set by the Environmental Protection Agency (EPA) based on a standard of reasonable certainty that the use would cause no harm to human health or the environment," says the company spokesman. However, U.S. federal agencies in charge of protecting the public's health with a "standard of reasonable certainty"—namely EPA, USDA and FDA—state that they have never looked at glyphosate residues in federal aggregate food crop tests (outside of one USDA test on soy in 2011), while citing manufacturer and EPA laboratory tests claiming there is no human health risk. They also insist that glyphosate herbicides are safe if used under direction. These same federal agencies also authorized the safety of "Roundup Ready" transgenic GMO crops as "substantially equivalent to nature," and give GMO glyphosate-ready crops a pass from federal food testing requirements.

Meanwhile, California OEHHA intends to list glyphosate as a carcinogen under the mandates of state law Proposition 65 (The Safe Drinking Water and Toxic Enforcement Act of 1986). "The law requires that certain substances identified by the International Agency for Research on Cancer (IARC) be listed as known to cause cancer under Proposition 65. Labor Code section 6382(b)(1) refers to substances identified as human or animal carcinogens by IARC."

AGGREGATE TESTING

It's a complicated byzantine federal process claiming to prove that

WHAT ARE AROMATIC AMINO ACIDS?

Aromatic amino acids (AAA) are amino acids that include an aromatic ring, such as six-carbon benzene (C6H6) or some other similar ring structure. Examples include the essential amino acids phenylalanine (which the body makes into norepinephrine and thyroxine), tryptophan (which the body makes into serotonin) and histidine.

Animals and humans get aromatic amino acids from their diet, but all plants and micro-organisms must synthesize their aromatic amino acids through the metabolically costly shikimate pathway in order to make proteins. Herbicides like Roundup and antibiotics work by inhibiting enzymes involved in aromatic acid synthesis, thereby rendering them toxic to plants and micro-organisms but—according to claims by pesticide manufacturers—not to animals.

These claims do not take into account the role of gut flora in human and animal health. Herbicides like Roundup are toxic to all microorganisms, including those that inhabit our intestines—with unknown but certainly harmful consequences.



Phenylalanine

glyphosate isn't a health risk but when unraveled, a secret emerges—the licensing of glyphosate and its products is in violation of the federal laws governing pesticides. The Federal Food Drug and Cosmetic Act (FFDCA) and the Food Quality Protection Act (FQPA) both mandate aggregate testing of food crops and products to account for the accumulated exposures of the herbicide's chemical residue in commonly consumed foods. However, U.S. federal agencies (EPA, USDA, FDA) claim that no government aggregate food testing of glyphosate residues has occurred, so the EPA uses "available information."

Furthermore, the FDA touts the FQPA Safety Factor as an additional ten-fold safety factor to protect for special sensitivity to pesticide exposures in infants and children. This may include residues in food, drinking water or residential exposures; but the EPA admits to waiving the FQPA Safety Factor for glyphosate, reducing it from ten to one.

"If you are asking if glyphosate is safe, then yes, we have said that glyphosate does not cause unreasonable adverse effects to human health and the environment so long as it is used according to the pesticide labels," says Khue Nguyen, Chemical Review Manager, Risk Management and Implementation Branch 1, Pesticide Re-evaluation Division, Office of Pesticide Programs of the EPA.

"EPA regulates pesticides, which means we deal primarily with pesticide policy and we determine what appears on the pesticide labels. We do not do food safety inspections or testing on food/feed commodities. To be clear, we set tolerances for all pesticides that are used on food/feed commodities. A pesticide having a tolerance or multiple tolerances does not mean that it is unsafe," says Nguyen.

Section408(b)(2)(A)(i) of the Federal Food Drug and Cosmetics Act states that EPA can establish a tolerance for a pesticide chemical residue in or on food only if EPA determines that the tolerance is safe. "Safe" is then defined as a "reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures."

Consumer advocates claim that without

the government providing a transparent aggregate testing of glyphosate chemical residue in food, there is no total accounting for the public's cumulative exposure to the herbicide in a daily diet; hence, no safety mandate maximum residue levels (MRL) can be established.

"The legal process for tolerance setting must be based on human health effects from dietary exposures. However, without data on actual residues on these crops, this cannot be verified. We have challenged EPA's tolerance setting before and will continue to do so," says Nichelle Harriott, science and regulatory director, Beyond Pesticides.

THE IR-4 PROJECT

In a little publicized federal government program called the IR-4 Project, the USDA, EPA and glyphosate manufacturers *do* test glyphosate tolerance residue on crops, but without transparency to the public.

The United States Department of Agriculture-funded IR-4 Project, which partners with the EPA, state government agencies, glyphosate manufacturers, and universities, has been testing glyphosate residues in food crops and feed to facilitate the herbicide's use in agriculture. IR-4 sounds like a federal secret, but when it petitioned the EPA in the Federal Register to increase food crop MRL residue tolerance levels of the world's most popular herbicide, it gave away its cover.³

This IR-4 petition went unnoticed in the shadow of Monsanto's (an IR-4 member) EPA petition to use Roundup on root and tuber vegetables, oilseeds, teff forage and hay; and certain vegetables and fruit, including citrus and berries.⁴ The petition was approved by the EPA (also an IR-4 member).

Headquartered in Princeton, NJ, the IR-4 operates as a "unique" partnership among the USDA, EPA, the National Institute of Food and Agriculture (NIFA), the Agricultural Research Service (ARS), the State Agricultural Experiment Stations (SAES), agrochemical industry, universities, commodity groups and growers.⁵ Monsanto, Syngenta, DuPont, Dow, Bayer, and BASF are listed in the IR-4 directory.⁶

With a staff of over one hundred twenty-five full-time members, the IR-4 Project pursues its mission to "facilitate registration of sustainable pest management technology for specialty crops and minor uses." Specialty crops tested by IR-4 include commonly consumed food crops (such as fruits, vegetables, nuts, herbs and spices) and non-food plants and flowers used in landscaping.

"As some background, for more than fifty years the USDA-funded IR-4 Project is the only resource for facilitating registrations of conventional chemical pesticides, biopesticides and organic products for growers of specialty crops and other minor uses (specialty uses) in the United States. These are uses not supported by registrants. IR-4 is a partnership with government, industry and growers," says Jerry J. Baron, Ph.D, executive director of the IR-4 Project.

"We typically develop residue exposure data to assist EPA with their risk assessment. Basically we apply the test product the way the farmer would potentially use the pesticide or biopesticide. When the crop is mature, we harvest the raw agriculture commodity and analyze for the presences of the chemical, biochemical and/or metabolites," says Baron.
What was the IR-4's urgent need to increase exponentially the herbicide residue levels allowed on such foods as carrots, sweet potatoes, fruits, grains and berries?

"The IR-4 Project received multiple requests for assistance to facilitate modifications to the registration of glyphosate from public sector scientists with USDA and the State Agricultural Experiment Stations. These requests were reviewed during IR-4 Project Food Use Workshops and classified as high priority," says Baron.

The IR-4 insists there is no conflict of interest with government regulatory bodies and glyphosate industry manufacturers collectively using their testing data to petition the EPA in the Federal Register to increase glyphosate MRL levels for crops.

"Though IR-4's data development is independent of the companies, IR-4 submissions are coordinated with the companies. Due to provisions of the Pesticide Registration Improvement Act, IR-4 submissions are often classified as part of a company submission," says the IR-4 executive director. The IR-4 also insists their hidden glyphosate residue data developed under USDA and EPA testing standards are "different" from the USDA MRL monitoring data used in national USDA food surveys to protect the health of the public.

"The data IR-4 develops are much different than glyphosate monitoring data by EPA and USDA; we are fully removed from that activity. USDA just released a report within the last couple of weeks from their Pesticide Data Program out of the Agriculture Marketing Service. You may find some glyphosate monitoring data in that sample set," says Baron.

THE PESTICIDE DATA PROGRAM

The USDA Pesticide Data Program (PDP) Annual Summary report is conducted by the USDA Agricultural Marketing Service (AMS) to collect data on pesticide and herbicide residues in over ten thousand samples of fruit, vegetables, fresh and processed products, and infant formulas throughout the U.S. using the MRL tolerances set by the EPA. These PDP data are presented to the public to assure consumers the food they feed their families is safe. "Ultimately, if the EPA determines a pesticide is not safe for our families it is removed from the market," states the USDA in their 2014 PDP report—but the USDA admit they don't test in the PDP for the most commonly used herbicide in the U.S. (glyphosate) in food crops and food products—except for one USDA soy test in 2011.

"The PDP tests a wide variety of domestic and imported foods using a sound statistical program and the most current laboratory methods. Glyphosate is not detectable using the multi-residue methods (MRM) the PDP testing laboratories use and would require a specialized method. Glyphosate requires the single analyte method to test for residues," says Peter Wood, spokesman for the public affairs office of the USDA AMS. When asked why the USDA PDP didn't use USDA-funded IR-4 glyphosate residue MRL data for those foods listed in the annual survey, the USDA spokesman said, "the report does not include data from other sources."

Why then doesn't the USDA employ the single analyte method used in the 2011 PDP testing of three hundred soybean samples for glyphosate and its metabolite AMPA (aminomethylphosphonic acid)?

"USDA and EPA specialists discuss the selection of commodities and pesticides for testing. With USDA's scientific input and EPA's data needs, EPA makes the determination which commodities and pesticides are tested," says Wood. "Currently, the U.S. Food and Drug Administration (FDA) is testing corn and soybean grains for glyphosate residues. EPA is waiting on the results from FDA testing before making the determination if additional data are needed for its ongoing evaluation of glyphosate tolerances to ensure that the levels set by EPA meet the safety standards prescribed by the law," he says.⁷

The FDA is responsible for enforcing EPA pesticide tolerances, but admits this is the first time they have ever tested for glyphosate MRLs in any food commodity. "FDA has not routinely looked for glyphosate in its pesticide monitoring regulatory program for several reasons, including that available methods for detecting glyphosate were selective residue methods that would have been very expensive and labor-intensive to implement in FDA field labs," says Charlotte Lian, Ph.D., Plant Products Branch, Division of Plant Products and Beverages, Office of Food Safety Center for Food Safety and Applied Nutrition, Food and Drug Administration.⁸

"FDA is aware of the 2015 IARC World Health Organization's assessment of glyphosate. In the U.S., risk assessments of pesticides are conducted by EPA," says Lian.

CIRCULAR NON-ANSWER

How were glyphosate and the seven hundred fifty products containing it licensed without abiding by the aggregate tolerance residue testing data mandates for risk assessments under the Food Quality Protection Act? The EPA dodges the question. Anne Overstreet, Chief Communication Services Branch, Field and External Affairs Division Office of Pesticide Programs, Environmental Protection Agency says, "The Federal Food, Drug, and Cosmetic Act states: To make the safety finding, EPA considers, among other things: the toxicity of the pesticide and its break-down products, aggregate exposure to the pesticide in foods and from other sources of exposure, and any special risks posed to infants and children."

"While testing for aggregate exposure is nearly impossible—people eat different foods, combinations of foods, and amounts of foods—EPA uses models to assess likely aggregate exposure and adds an additional safety factor to further protect consumers, especially children, as required by the Food Quality Protection Act."

"In setting tolerances, EPA must make a finding that the tolerance is 'safe,' with safe being defined as meaning that there is a 'reasonable certainty that no harm will result from aggregate exposure to the pesticide residue.""

Overstreet then refers to the USDA PDP aggregate exposure testing as proof consumers shouldn't worry about pesticides residues on their food—even though the 2014 PDP didn't test for glyphosate. "The PDP data demonstrate that overall pesticide residues found on foods tested are at levels below the tolerances established by EPA and pose no safety concern. Based on the PDP data, consumers can feel confident about eating a diet that is rich in fresh fruits and vegetables," says Overstreet. But what about a diet rich in grains and soy-fed eggs, milk and meat?

"Glyphosate residue data are not part of 2014 PDP sampled pesticides. To find out whether FDA has plans to test for glyphosate residues, please contact FDA directly," she says.

This type of circular non-answer on glyphosate's safety is how the EPA has been stalling their decision to reregister the herbicide and its products, thus permitting its continued use. The EPA also hasn't responded on whether the herbicide's current MRL tolerance residue levels are in violation of the FQPA Safety Factor protecting prenatal, infants and children.

"The real question is whether the EPA was in violation of the law when glyphosate was approved then and now," says Jonathan Evans, Environmental Health legal director and senior attorney for the Center for Biological Diversity.

CONCLUSION

Based on the mandates of the Food, Drug and Cosmetic Act as well as the Food Quality Protection Act, glyphosate should be illegal.

Specifically those acts call for aggregate testing of food products to determine the chronic and acute risks of a pesticide on your body. Once aggregate testing has been carried out, the FDA will mandate MRLs for that product. Then the product will carry instructions for the farmer or homeowner on how much to apply—often given in an amount per acre.

All of this requires aggregate product testing, which the agency openly admits they have not conducted (with the exception of glyphosate for soy in 2011). This is a bureaucratic process—modeling acute and chronic estimates and applying the results to a billion-dollar industry.

In fact, the division of EPA that actually enforces pesticide tolerance levels has never enforced this regulation—there has never been a recall because a pesticide is over limit.

In 2013, the IR-4 increased the tolerance level of glyphosate for many crops across the board—"helping industry" get this valuable tool applied to other crops. For fifty years, the IR-4 project has helped the pesticide

industry get licences. They do testing but do not reveal the results. IR-4 generally allows the highest amount requested with no science to back up their decisions.

Meanwhile, the consumer is the victim of this bureaucratic farce. \bigcirc

© 2016 Donald Sutherland. Donald Sutherland is a freelance writer, USDA certified organic vegetable farmer, member of the Northeast Organic Farming Association (NOFA), and the Society of Environmental Journalists (SEJ). www. linkedin.com/in/donaldsutherland. He farms with his wife Laura, and their two daughters in Hopkinton, Massachusets. Long Life Farm, www.longlifefarm.com.

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

Homeopathy Journal HELP FOR THE SLEEPLESS CHILD By Joette Calabrese, HMC,CCH, RSHom (NA)

What drives new parents to the point of near insanity? A sleepless child.

I know. Until I had children, I had no idea the crushing effect a sleepless child could have on a family. In fact, I had no idea what it was like to have a child with any difficulties because up to that point, I lived in a childless dream world, where sleep was taken for granted. Then I had one who wouldn't slumber.

I was a slave to his insomnia. I rocked him. Walked him. Fed him calming foods like warm, raw milk. Sang to him. Yet no matter my efforts, he remained wide awake. I felt like crying in defeat because nothing I did helped. There were times he'd fall asleep in my arms after walking him for hours, but the smallest action of putting him down in his bed would wake him, leaving me no other choice but to either let him scream for hours (which I could only endure a few times before collapsing into comforting him), or continue pacing through the wee hours of the night. My husband and I were so worn out by our sleepless baby that we recruited my parents and a babysitter's aid on some nights, just so we could squeeze in a few hours of desperately needed rest. None of this affected our little one nearly as much as it did my husband and me because he would snooze on my shoulder a little, as long as I walked. At the time, I was a homeopathy student and barely knew how to treat simple acute illnesses, let alone this chronic condition.

As you can imagine, sleep-inducing drugs like Ambien, Restoril and Sonata are sometimes administered to babies and older children in the over-prescribed, conventional pharmaceutical world we live in today. But for those of us walking the path of a more wholesome approach, drugs like these are out of the question.

Indeed, I wish I could tell you there is one simple solution; a single homeopathic remedy

that easily puts all children to sleep without any muss or fuss, like the promise of pharmaceuticals, but when employing homeopathy, a more exacting method is required.

It is not a complicated process, however it eluded me during the early moments of my burgeoning motherhood, due largely to my sophomoric understanding of homeopathy at the time. I later learned that the homeopathic technique forces us to tighten our observational skills, become familiar with a handful of homeopathic medicines and learn when to use them.

Certainly the watchful eye of a mother is a critical component when rearing children. In fact, the survival of humankind depends on this. However, there is a contrary side to a mother's attention to details in which she does not (or cannot) see what is actually happening to her child, in spite of obvious evidence. Perhaps because it is too painful to admit that certain intellectual theories she may have held in high regard may not be at play. Perhaps she cannot see a clear overview when details are in hyperfocus. Such was the case with my son and me. Possibly, I didn't want to believe there was an underlying condition, such as a problem with his gut and how it may have influenced his sleep. I held to my reasoning that I had only consumed wholesome, pure foods for at least a decade prior to conceiving him; I had followed WAP's precepts upon conception to a "T"; I gave birth at home, and he was never exposed to manufactured foods nor a pharmaceutical lifestyle. I was sure I had done everything right. So I readily dismissed what I should have paid attention to most.

With the passage of time (which, in truth, equated to many more months than I care to admit) and a dash or two of clarity, I was finally able to unearth the cause of my baby's sleep disorder. The sobering truth was that my child Sleep-inducing drugs like Ambien, Restoril and Sonata are sometimes administered to babies and older children. When the DNA is poked at by suppressing methods, such as drugs of commerce, the result is thrown into the next generation. This inherited stain is called a miasm. not only suffered from insomnia but also a swollen, tympanic belly. It was wishful thinking on my part that kept me believing his belly was normal, but in my most lucid moments, it was painfully evident that I was not addressing the true essence of his condition. Then one day (for no reason I can clearly recall), I decided to give him a homeopathic medicine designed to treat bloated bellies and food intolerances. Over a period of about six weeks, some remarkable changes began to occur. First, his appetite returned. This was not something I had wholly recognized as being associated with his overall state, but it was evident upon its correction. Then soon enough, a healthy, stable sleeping pattern started to emerge. I can't recollect exactly when my husband and I were no longer assigned to our obligatory nocturnal walkings, but now, decades later, I can recall that he slowly began sleeping through the night and not long after, his swollen belly returned to a normal shape and size.

What plagued me as much as my sleep deprivation was the guilt I accrued wondering what I had done that might have contributed to this condition. I could only blame my husband's and my DNA, which had been plenty manipulated during previous decades of meds, meds and more meds. Indeed, I should have recognized this because in homeopathic literature throughout the centuries, it is noted that when the DNA is poked at by suppressing methods, such as drugs of commerce, the result is thrown into the next generation. This inherited stain is called a miasm.

I will note that certainly, not all cases of childhood insomnia are rooted in gut ailments, yet with this episode in my personal life and in my practice, I've noted that far too many are.

As such, insomnia is frequently not just insomnia, but a representation of a deeper underlying condition, which can include inherited conditions of gut dysbiosis.

However, there definitely are causes stemming from more minor pathologies. Cases of teething are a prime example of this. What would seem to be a normal milestone in a child's life can sometimes morph into a pathology that can be the root of sleeplessness, sometimes even for weeks, thus becoming chronic. Here are some of the most common causes of chronic pediatric insomnia and their important homeopathic medicines to consider:

- 1. *Ignatia* is the best choice when the cause of insomnia is the result of a psychological issue such as fear, anxiety, sadness or stress. It's also an effective go-to remedy when there do not appear to be any other extrinsic factors present. *Ignatia* 200 is also my primary choice in cases of childhood insomnia when nothing else stands out as the cause.
- 2. What if the sleepless child is a newborn? We don't usually associate insomnia with neonatal pediatrics, and we don't expect that there would be a psychological cause. So instead, we might look at what preceded the baby's insomnia; that is, the actual birth. If the baby came into the world in a flurry of drugs, such as those administered during and after a C-section-Pitocin, which is used to speed up the body's natural labor process; antibiotics present when the mother is giving birth-a newborn can be adversely affected. Who wouldn't be after such an event? In cases like these, one dose only of Aconitum 200, followed by Nux vomica 200 taken once daily for a few days will often antidote the ill effects of the drugs and restore the child's sleep. This is particularly well-suited for babies who concomitantly suffer from gastrointestinal conditions, such as constipation, diarrhea or both, as well as colic.
- 3. If the child is a little older and appears over-active by way of constant chatter and a noticeably hurried state of mind, particularly after the use of conventional drugs, such as ADHD meds and other personalityaltering substances, *Coffea* 200 is likely the appropriate remedy for insomnia. The use of *Coffea* is also suitable if the child eats or drinks stimulating foods such as chocolate, coffee and other caffeinated substances, yet the use of these substances is not necessarily requisite for choosing this medicine.

4. For the child who suffers from insomnia due to an overworked mind resulting from a heavy school load, *Kali phos* 200 should be considered.

If none of the conditions described above fits the picture of the child in question, it might be time to consider those conditions that are prominent in the family, such as gut dysbiosis, food intolerances and allergies, just like I did with my son so long ago. Based on my limited knowledge of homeopathy at the time, coupled with my blind eye to recognize the obvious, I initially started him on *Ignatia*, but with limited success.

The remedy that did correct my son's insomnia was Lycopodium 200. I gave it to him once a week for about six weeks. As I remember it, there was no change in his sleep for a while, but I did notice a change in his overall demeanor. He was more lighthearted, his appetite increased and he exhibited a new vitality. He began taking naps and bedtime became a less dreaded undertaking than it had been up to that point, and more a seemingly regular routine. His belly was no longer as bloated and after about a month or so, his sleep was nearly fully restored (along with my sanity!).

I fully expected to witness a complete cure, but that was not the case. Instead, it was necessary for me to administer Lycopodium 200 time and again over a period of several months. Each time it was employed, his belly seemed to improve a little more. To this day, his sleep patterns directly coincide with his digestion, and I've noted the same for many of my clients and students.

As is often the case when employing homeopathy, it is best to stop using the medicine once the condition has resolved. This can take anywhere from a few hours, a few days or even several months, and is why the art of observation is so fundamental to the employment of homeopathy. Generally, homeopathics are used twice daily, then assessed at the end of that time to determine whether improvement is evident.

At any time, if sleep is much restored, the medicine should be halted, regardless of how long it has been used. For example, if sleep is only par-

tially restored, this is an indication the remedy has not fully acted and needs more time. Yet, if there is no improvement at all after a month and a half of use, it should be stopped and a more individually specific remedy considered in its place.

Once you discover the medicine that works best for your child, you'll experience a type of relief you never thought possible. Homeopathy has a long history of gently treating conditions and uprooting them. A tender homeopathic nudge goes a long way when it comes to restoring sleep, correcting food intolerances and easing a worried motherly mind. Genuine sleep will remove the blinders from weary eyes and offer insight into a world of family-centered medicine.

Joette Calabrese, HMC, CCH, RSHom(Na) is a homeopathic consultant and educator who works with and trains students around the world via SKYPE and online courses. Gateway to Homeopathy: A Study Group Guided Curriculum is Joette's newest course to help families learn how to use homeopathy protocols in their homes with friends for chronic conditions, such as those in this article. Joette calls this method Practical Homeopathy. Go to Homeopathystudygroups. com to get started and read inspiring testimonies from other families currently participating in or just finishing up this eight-week course. For free everyday protocols go to JoetteCalabrese. com/blog.

RAW MILK PETITION IN CANADA GAINS MOMENTUM by Liz Reitzig

New developments in Canada are indicative of raw milk's growing appeal to the people of Canada. Canadian citizen, Cory Harris, has launched a petition campaign for the Minister of Health. The petition states, in part: https://petitions.parl.gc.ca/en/Petition/Details?Petition=e-289

"We, the undersigned, Citizens of Canada, call upon the Minister of Health to Modernize and amend the Food and Drugs Act and the corresponding Food and Drug Regulations, to permit the legal sale of, and/or access to, raw (i.e. unpasteurized) milk and milk products through small-scale certified herd share programs, or other such suitable arrangements, capable of managing any associated health risks in a responsible and reasonable manner."

This petition is required to be brought before the House of Commons if it reaches five hundred signatures before the end date. The petition is over 3,000 signatures with an August 11, 2016 deadline. The Canadian government is required to respond within 45 days to each petition that is read in the House of Commons.

To get greatest notice on this, we would like to be the top petition on the site. This would send the message loud and clear that it is past time the Canadian government reevaluates its outdated position on the prohibition of fresh milk. Make your stand with us. https://petitions.parl.gc.ca/en/Petition/Details?Petition=e-289.

Wise Traditions Podcast Interviews

A LIFE UNBURDENED With Richard Morris



Hilda Labrada Gore: Our guest today is Richard Morris, author of *A Life Unburdened*, a man who unsuccessfully tried diet after diet for weight loss. At one juncture Richard weighed over four hundred pounds. He would wake up most mornings asking himself, "Is today the day I die?" Today you'll hear how he lost weight by ignoring the experts and using the power of real food. I have heard people use the expression, "I'm a changed man." But I think you really are a changed man, aren't you?

RM: In my case this is literally true. Back in 2002 I weighed over four hundred pounds. And I was sick—I was pre-diabetic, I had asthma and high blood pressure. I was in really bad shape. Then I lost most of that excess weight, and I have kept it off. I'm running obstacle races. I'm signed up for a Spartan race. I'm running five K's and ten K's and really enjoying life.

HLG: Oh my goodness what a drastic change! Four hundred pounds. Excuse me but that sounds like a couple of people's worth of weight. Please tell us first about how you got in the position of being so overweight?

RM: This is going to sound a little strange, but I honestly had no idea how large I was. It's like putting a crab in water on the stove and then slowly turning up the heat; the crab doesn't notice it because the water heats up slowly. I was gaining a pound here and five pounds there. I would look in the mirror, and every day I knew I was overweight but every day I looked sort of normal to myself. It isn't until you see yourself in a photograph or in a video that you realize you've gained a lot of weight. It snuck up on me—I was never fully conscious of it. **HLG:** What was the turning point? What made you realize that something had to change?

RM: It happened in 2002 when I was commuting to work in New York. I walked to work, as in New York nearly everybody walks to work if it is not too far from home. For me a walk of several blocks began to feel like walking ten miles or climbing Mount Everest. I mean I would be out of breath by the time I got to the office. One day my knee gave out on me as I was stepping into the elevator and I almost fell down. I had all kinds of aches and pains. Just standing up for more than a minute was painful for me. That's when I would wake up every morning and ask myself, "Is today the day I die?" I realized I needed to do something different and the thing that I did different was the food that I was eating.

HLG: When I read about your struggles—including the painful details like your belt buckle digging into your waist, or sweating profusely after the slightest exertion—my heart went out to you.

RM: Actually, there's one thing that I didn't put in my book because it was so painful. I was always drenched in sweat by the time I got to work, and one day I got to work and opened my desk drawer to find that someone had placed a container of deodorant in there. I was taking baths and showers and washing and trying to be as hygienic as possible but that four- or five-block walk to work might as well have been ten miles. So you can imagine what a painful thing it was to find the deodorant.

HLG: Richard, you said food made the difference—I thought food would have been part of the problem.

Hilda Labrada Gore, a mother of four, has been involved with WAPF for over ten years and is the chapter leader for Washington, DC. She went to Kenya last summer on behalf of WAPF. She is the director of communications for Body & Soul, a worldwide fitness organization. She also plays the guitar and is the contemporary music leader at National

Presbyterian Church.

RM: Food was part of the problem but like a lot of things, it also turned out to be part of the solution. I worked in the software industry and one thing about that industry is you spend a lot of time at your desk in front of the computer. If you're writing code, reviewing code or designing software, there's not a whole lot of time to go out and eat. The software companies want employee productivity and so they make eating very easy. They bring in pretzels and donuts; sodas from the machine costs only ten cents per soda or they are even free. And so it was really easy to put down lots of junk food very quickly at work. I calculated that on some days I was putting away up to seven thousand calories. And many of my colleagues were doing the same thing. It's not uncommon in the software industry to find overweight people.

HLG: So how did you figure out that the food you were eating wasn't the best, that you needed to change what you were eating? You must have tried a million diets?

RM: I would say a million and one diets. I talk about them in my book *A Life Unburdened*. One of the diets we did was the cabbage diet, where we basically ate a lot of cabbage—which

is just a horrible way to live. And then there was the exercise diet where I was going to the gym twice a day—just burning myself up. And I actually lost weight on these, but these diets are unsustainable. They don't work over the long term. In every case where I lost weight on a diet, I gained it all back. I was a vegetarian for a year and lost some weight but then gained it right back. The change for me came one day on the way to work. I felt so terrible that I decided I was going to fast for that day. And I did and felt pretty good. At dinner time I did get some food-grilled chicken with vegetables, and I drank water. When I woke up the next morning, I felt 50 percent better and thought, "Wow that was amazing!" so I did it again a second day. And when I woke up the third day I felt like a new man. I could not believe it. At first I thought I must have been eating some kind of magic chicken. But then I realized: no it's not what I was eating. It's what I wasn't eating. I wasn't eating the potato chips and a lot of processed food out of the vending machine. That's when the light bulb went on.

HLG: In your book you mention that your wife was struggling also, that both of you were in this together. How did the light bulb go on for her?

THE WISE TRADITIONS PODCAST

The Wise Traditions podcast is continuing to gain steam! Just launched in January 2016, we now have had over ninetythree thousand downloads. (By the time the journal goes to press, we'll have thousands more!) It's a fantastic resource for all listeners, and it makes sharing our valuable content a snap. Just go to the westonaprice.org website and click on the word "podcast." When you click on any episode link, you can simply cut and paste the link and share it in an email or on social media.

Listeners are raving! Here are two from iTunes.

"Everyone needs to listen to this podcast. Their lives will change drastically for the better! Please keep doing more episodes. We love them." Dajana & Henry

"I have been listening to this podcast from the beginning and I love it! There are amazing guests who always provide valuable nuggets of information. I love how Hilda is not afraid to ask important questions and cover controversial topics to make sure the truth is heard. I recommend this podcast for everyone interested in health and nutrition!" Sven Craun

You'll also notice at the top of the podcast page an application called mixlr. It looks like a little radio speaker. There you can listen to occasional live events, when it says "on air." When it says "off air," click on "WISE TRADITIONS LIVE" and go to "showreel." There you'll find raw audio footage of events, chats, and even farm tours!

Keep listening (and sharing) our content whenever possible! We want as many people as possible to have their health restored and to reach their full genetic potential!

I calculated that on some days I was putting away up to seven thousand calories. RM: When I realized that I'd been eating all of the wrong foods, I got on the phone and called my wife back home in Virginia. "I would like us to change the way we eat," I said. "I think we need to go back to eating the way our grandparents ate." Now at the time I weighed over four hundred pounds, and my wife was pushing two hundred pounds, so we were both overweight. It just so happened that she was thinking along the same lines; she knew that we were both headed in the wrong direction. We have two girls and they were gaining weight also; we knew we were doing something wrong. She didn't give me any pushback on it but said, "I think this is a great idea." So while I was still in New York, she and my daughters went to our kitchen cabinets and took out every box, every can, everything that had a list of ingredients you needed a laboratory to reproduce, everything with items in the ingredients list that you couldn't pronounce. And from that point we started going to the grocery store and buying whole foods and cooking our own meals.

HLG: So it took effort, it didn't just happen. Did you have cravings? Did you want to go back to the old stuff?

RM: There was one incident that occurred after we had made this change. We had been eating whole foods and cooking our own food-and it was delicious. I had forgotten what homecooked meals tasted like. And after several months, I started losing weight—I was making progress and feeling good. Then one day-it must have been a stressful day-after I got off work I stopped at the store and picked up a bag of potato chips, not a small bag-it was a family sized bag. And so I'm eating this bag of chips as I'm driving home, and you know what you can't eat just one. I was almost through with the bag of chips when I realized that they didn't taste good. Why was I still eating them? Instead of making me feel better like chips used to-at least temporarily-they made me feel worse. It was more than guilt about eating something that I knew that I shouldn't-literally those chips did not taste good and I think that's because my taste buds had changed. My general idea of what

tasted good had changed. I ended up crumpling up the bag with some chips still in it, and I threw it on the floor of the car. That was the moment I was pretty much done with those cravings. So the more you continue to eat whole foods, the more those cravings for industrial overly processed foods will subside.

HLG: Did you feel like the people around you were thinking "This is another fad diet, he's going to go back to 'regular' eating," or could they sense it was for real this time?

RM: Nobody was really saying anything to me at work. At home, my wife and I began to go for walks in the neighborhood, as part of our change. I had a next door neighbor who did comment that I was losing weight and looking better. But for the most part people didn't say much about it.

HLG: They probably didn't know what to make of it. The important thing is that you and your wife were feeling the difference. I bet your girls were feeling the difference also.

RM: Yes we were, within a very short period of time. We felt better—I mean really better. And there was a period where I was dropping six pounds a week. And I wasn't counting calories or exercising too much. I was just eating real food and going for walks in the morning. The weight just fell off and you know that success breeds motivation. Feeling better, seeing myself get a little bit smaller and my clothes fitting better—that just kept me going.

HLG: And you were saying earlier that diets are not sustainable. What do you mean by that, Richard?

RM: Diets don't last; I like to say that diets don't work long term. Diets can work short term but really what you want is a long-term solution for losing weight. Long term with these diets you not only gain the weight back but gain extra. So the approach to dieting needs to be something that is sustainable, which means it has got to be something that you can do not just for a temporary period of time but for the rest of your life.

It's a diet that we can live with for a long, long time, for generation after generation. **HLG:** And eating real food cooking at home these are things that are sustainable, right? Tell me how your grandparents ate? Did they eat real food?

RM: Yes, they did. My mother was an Alabama farm girl. Her parents were rural people doing small-scale, subsistence farming. On my father's side it was the same thing. I never met my grand-parents but my mother told me stories about them. Even when I was a kid and my family was living in Michigan, it was not uncommon for my father to go out on a Sunday and buy a live chicken at the market. He'd bring that chicken home and my mother would slaughter it. And we would have fresh chicken for dinner.

HLG: Wow. And how is it that your family and you departed from that kind of real food?

RM: I like to say that as humans it's just part of our nature that we're always looking for ways to streamline, to reduce the amount of work that we have to do. When my family moved from Michigan to Arizona, we found ourselves surrounded by cheap processed food. Since it costs less, you get lulled into the idea that it has a higher value. You begin to rate your food by the price rather than by the quality of that food. The other thing is that there was a period where we were pretty poor, and we were getting government food. That means we were basically getting corn syrup and white flour-basically all of the junk foods. That's what was being given to people on public assistance. I used to make the sandwiches when I was a kid-two slices of white bread with corn syrup as the filling and

that was a sandwich. Sometimes I'd throw some peanut butter on there. It was a horrible diet but it was a diet that we were forced into because of our financial situation at the time. But also because the culture, which just sort of moved us in that direction.

HLG: So how did you reconnect with cooking and real food? Where did you turn for guidance?

RM: Initially it was just a gut feeling. After my successful experience in New York, I returned to Virginia where I continued what my wife had already started. We just began cooking. I like to cook; if I could have a second life I'd come back as a chef. And so I started cooking. We taught our daughters to cook and the food just tasted better. At the time I didn't really know too much about diet and nutrition-all I knew was that, wow, this food tastes a lot better than the stuff that I normally buy. I also figured out that when you cook it yourself, when you make your own food with real ingredients, it actually does cost less over the long term. So not only were we enjoying good food, we were saving money. And although I say "good food," at that time I didn't have any farmer contacts, I was going to the regular grocery store. What I was buying was industrial chicken, industrial beef and industrial vegetable oils. But it's a spectrum. You jump into this approach wherever you fit. If you've got the money to buy organic or if you have a local farmer that you can purchase from, then definitely go that route. But if you are like we were, where we didn't really know what we were doing at the time, then going to the regular grocery store is a good place to start. I like to say that an industrial whole egg is better than eggs in a box.

HLG: So true. It's a matter of taking those small steps to upgrade your diet, moving away from those labels with ingredients you can't pronounce. Once you got rolling you probably realized that organic food would be better. Then what did you do?

RM: Once I start something, I go whole hog, I jump in with both feet, so I was all over the Internet, searching and searching, and then I stumbled across this organization called the Weston A. Price Foundation. I thought, who are these people? But as I was reading the website, I thought, "This

QUOTES FROM RECENT PODCAST EPISODES

"Every piece of food you eat creates the landscape your grandchildren will inherit." Joel Salatin, "The Marvelous Pigness of Pigs"

"Right now if an adult follows the CDC vaccination schedule, they will get ninety-one doses of vaccines between ages eighteen and eighty. The national Adult Immunization Plan would identify adults who are not complying to push the vaccines that are coming. It verges on a police state. This is medical tyranny."

Leslie Manookian, "Vaccines: What's All the Fuss About? (Part 1)"

"Today the top six foods in the American diet are grain-based desserts, bread, sugar-sweetened beverages, pizza, alcohol and fried chicken. I'd say we've strayed pretty far away from our native ancestral diet and we have this epidemic of chronic modern disease as a result of that." Chris Kresser, "The Wisdom of our Ancestors" is it, this is what I've been doing and what I've been thinking but couldn't articulate it at the time." I realized that these people had the information I needed. It just so happened that shortly after that the Foundation was doing a talk somewhere in DC and I decided to go. I was just blown away because all of the things that I suspected were true. The Weston A. Price Foundation became my number one source for information about whole foods.

RM: And you know what I picked up from the meeting was honesty. I mean I didn't feel like I was being sold. For once in a very long time I'm getting real honest information.

HLG: How much time went by from the chicken experience in New York to when you were really feeling good? When did you start running races for example?

RM: From the day I ate that magic chicken to the moment when I really felt terrific was eighteen months. I lost over one hundred fifty pounds. And I didn't really notice that I had lost that much weight until people began saying. "Wow! He's lost a lot of weight!" People began urging me to write a book. That was back in 2003, but believe it or not, I just got into racing last year. I didn't think it was something that I would like but I sort of stumbled into it. You know in my book I talk about the Ten Steps to Success, and I think step number nine was "Find Your Motivation." It turns out that I'm just passionate about running races. Racing has became another motivator for me to stay on this path of eating the foods that are more likely to yield good health for me. But it's also fun. I'm getting out there and running because I enjoy it. I do a five K here and a ten K there. I just finished a ten miler a couple days ago. I'm looking forward to doing the Spartan Obstacle Race later this year.

HLG: And the Spartan races have more challenges than a regular race, right?

RM: The ten-miler I did was just straight running for ten miles. The Spartan races have obstacles that include all kinds of stuff. You might

be in mud up to your hips or climbing eight-foot walls or on monkey bars. It's like a big kid's playground but I don't think I've ever been as exhausted as I was at the end of that race.

HLG: Does your wife join you on the track and Spartan races?

RM: No, she's not so much into that extreme kind of racing but we hike together—she loves hiking. We live in a rural area so there's a lot of places to go for long walks. We typically do a three-mile walk together two or three times a week.

HLG: It sounds like activity is a piece of the puzzle as well.

RM: It's a big piece of the puzzle. There was a period when I was solely focused on food. We do need to take what we eat seriously. But I realized that what I eat is not disconnected from the rest of my life. All of our lives are complicated and everything is connected to everything else. I realized that there has to be a reason for eating good food and for me eating good food was a way to fuel my racing. Another reason: my wife and I are small-scale farmers raising pigs, chickens and turkeys, which can be strenuous work. And so eating good food is a way to fuel us to do that work.

HLG: A lot of athletes are looking for the perfect optimal fuel such as protein powders and energy bars. Is that the kind of fuel that your body needs to sustain and meet these challenges?

DO YOU WANT TO TUNE IN? HERE'S HOW

LISTEN: The Wise Traditions podcast can be found on our website, westonaprice.org, on iTunes and Stitcher (for Android users).

SHARE: Copy and paste episode links and send them to friends and family! Share episodes on Facebook and Twitter. On iTunes, click on "get" on the episode of your choice and options for sharing on social media pop up immediately.

REVIEW: On the podcast's home page on iTunes, there is a prominent section for "Ratings and Reviews." Please rate us and comment on the podcast. This helps us remain "New & Noteworthy" and will draw the attention of many others unfamiliar with WAPF.

RM: I've read about protein powders and I did try them for a while. But they seem like a waste of money to me. You don't really know how much protein or how much filler is in those products. And why use a protein powder when I'm producing high quality protein right here at home. I can just go out to my freezer where I've got pork, chicken, turkey and beef. I've also got eggs. I have found that real food is the best source of all the nutrients I need to fuel my life

HLG: I'm sure your grandparents were more likely to eat real food than they were to have protein powders. We are trying to go back, which is actually part of the mission of the Weston A. Price Foundation, to honor the traditions of our ancestors.

RM: Absolutely. The more you process a food, the more you're going to lose some of those core nutrients. You could wind up with something that tastes okay but it's just not the same thing. Since I've been powering my activities with real protein from good sources, my output has been better. The ten-mile race I ran a couple days ago has been my best race so far. That's because I'm constantly honing my diet and using real food to get where I need to go.

HLG: And how old are your girls now?

RM: My youngest is twenty-one, and my oldest is about to be twenty-six. And both of them are in good health now. My oldest daughter started developing breasts at a really early age. My wife and I asked the doctor whether it could be the food. And he just dismissed us-he waved that away: "Oh no it can't possibly be that." So my next daughter comes along and we see the same thing. At that time we were eating a lot of industrial chicken. And so we stopped feeding her that and switched to pasture-fed chickenand the condition reversed itself! So I do think it was the food. You know industrial chickens get growth hormones and in some cases antibiotics because these chemicals make them grow, and make them fatter faster

HLG: Well here is a marvelous story about not only your own health turnaround but that of your family. As we prepare to wrap up is there anything you would like to tell our listeners? What is one thing you would recommend they do to improve their health?

RM: I think everything starts with education. There are no one-size-fits-all solutions for anybody and so it really is on us as individuals to educate ourselves. Find a source like Weston A. Price Foundation website where there's lots of information. And you can educate yourself. Don't just take anybody's word for what is best for you; educate and then experiment to find out what works.

Richard Morris once weighed over four hundred pounds and was on the fast track to an early grave. He found his way back to health by rediscovering the transformative power of real food. He is the author of A Life Unburdened: Getting Over Weight and Getting on with My Life, an Eric Hoffer Award winner. Richard has shared his inspirational story with audiences around the country. A real food enthusiast, small-scale farmer, and obstacle-course racer, Richard has been profiled in the film documentaries: American Meat, and Polyfaces. He will be a speaker at Wise Traditions 2016 in Montgomery, Alabama, November 13, 2016. You know industrial chickens get growth hormones and in some cases antibiotics because these chemicals make them grow, and make them fatter faster.

FUND-RAISING CAMPAIGN FOR THE WESTON A. PRICE FOUNDATION JULY 1 - AUGUST 31, 2016

July 2016

Dear Friends of the Weston A. Price Foundation,

While WAPF is a membership-based organization, our affordable membership fees do not cover our many activities, all of which are geared to teaching our dietary principles and making nutrient-dense food available to people from all walks of life, all over the world. These include our providing journal, brochures and pamphlets; maintaining our influential websites (westonaprice.org and realmilk.com); exhibiting at over one hundred conferences each year; supporting over five hundred local chapters; weekly podcasts; and a lively social media presence.

Have the WAPF teachings benefitted you and your loved ones? Are you and your family enjoying better health due to the activities of WAPF? Then we ask that you give back with a donation, ideally between now and August 31. You can use the envelope attached here, or go to www.westonaprice.org/donate to donate online. You can choose to provide support among several areas:

- GENERAL EDUCATION: Help support our main focus, which includes our lively quarterly journal, print materials, website upkeep, podcasts, exhibiting and local chapter activities.
- SOY ALERT!: Two projects will require additional finances this year, the appeal of our soy prison lawsuit and our petition to remove heart healthy label claims. These expenses really add up!
- WAPF OVERSEAS: Our intrepid representative Hilda Gore has just returned from her second trip to Kenya, where she found that a whole village has adopted WAPF principles since her first visit. We have invitations to Uganda and Peru, but will need funding to follow through.
- 12 SPOONS RESTAURANT RATING PROJECT: We are almost ready to launch but will need funds for ongoing administration. The goal is to help you find restaurants that serve healthy food and inspire thousands of restaurants, cafes, food trucks, community kitchens and caterers to adopt WAPF principles.
- RESEARCH INTO THE FAT-SOLUBLE VITAMINS: We will be working with Chris Masterjohn, PhD, to find out how to maximize levels of vitamins A, D and K in the foods we eat.

Here's what you'll receive as our way of saying thanks:

All donors: Our three new educational flyers Donation of \$100 or more: A copy of our popular *Healthy 4 Life* recipe book Donation of \$250 or more: A copy of *The Nourishing Traditions Cookbook for Children* Donation of \$2500 or more: September 24 farm tour and farm-to-table dinner with Sally Fallon Morell and Geoffrey Morell at their farm, P A Bowen Farmstead, for you and one guest.

Our goal is to raise \$100,000 by August 31—and we can only do that if everyone pitches in! So please send in your donation (or donate online) as soon as you can.

Gratefully, Sally Fallon Morell, President and Kathy Kramer, Executive Director

Deadly Medicines and Organized Crime: How Big Pharma Has Corrupted Healthcare by Peter C Gøtzsche Radcliffe Publishing

The author, Peter Gøtzsche, graduated with a Master of Science degree in biology and chemistry in 1974 and as a physician in 1984. He is a specialist in internal medicine; he worked with clinical trials and regulatory affairs in the drug industry and is a co-founder of the Cochrane Collaboration.

I mention this just to point out that the information in this book comes from someone who has been inside the industry for a long time. He is not just another troll regurgitating nonsense made up by some other troll.

A few numbers begin to paint the picture. In 2009, Pfizer paid over two billion dollars in a healthcare fraud settlement. GlaxoSmithKline paid three billion in 2011. Johnson & Johnson was fined over one billion dollars in 2012, and he lists several others. Even for large corporations these numbers sound huge to me.

His evaluation of the pharmaceutical industry may seem excessively harsh if you are new to this subject, but the numbers above are just a few early details in an account of many documented offenses. When asked to comment on what he thinks of the industry's ethics, he jokes that it is difficult to describe what doesn't exist.

I worked in the defense industry for many years and I find the approach of industry in general to ethics would be funny if the consequences were not so often dangerous or deadly. We had to attend mandatory ethics training which typically occupied about one hour of our time each year. The effectiveness of this is dubious at best. If I just intentionally sold a "health" product that kills people, is a little training going to reform me? Oops, that happened because I missed my ethics training. Sorry. My bad. The biggest difficulty with discussing drug trials is knowing where to begin. Other book reviews have talked about this so I will try not to be redundant. One of the key problems with placebo controlled trials is that often the placebo doesn't fool anybody. Most people know drugs have side effects so if you are not experiencing any, you got the placebo. This book recommends correcting that with active placebos, meaning placebos that generate side effects similar to the actual drug.

While poor methodology is epidemic, there is a much larger, more central problem. Pharmaceutical trials are not motivated by any dedication to science or safety. They are marketing. It should be obvious to the FDA and everybody else that the testing of a product by the producer will never be anything but marketing, but the farce continues.

Scientific journals helpfully provide support for this marketing. *Lancet* editor Richard Horton said "Journals have devolved into information laundering operations for the pharmaceutical industry." The pharmaceutical industry is clearly about money and not health. If you make it half way through this book without getting that point you either work for the industry or perhaps you are availing yourself of a few too many of their products.

But. . . but the FDA will protect us, right? FDA scientist Len Lutwalk said that if the American people knew some of the things that go on in the FDA, they'd never take anything but Bayer aspirin.

Companies like to claim that the efficacy of their product is backed up by the data, but does anyone ever see the data? Russell Katz, director of the neuropharmacology division of the FDA said companies don't like to publish negative studies. He finds it amusing how so many scientists and physicians make pronouncements on the data without seeing the data. If you really want to see data you usually have to pay. Even



Pharmaceutical trials are not motivated by any dedication to science or safety. They are marketing.

then, probably most data are so deeply buried no amount of money in the world will get you a peek at them.

One of the branches of modern medicine that has most unreasonably detached itself from the data, ironically, is psychiatry. Psychiatrist David Healy said "There is probably no other area of medicine in which the academic literature is so at odds with the raw data." This field has defined so many mental disorders so vaguely that, by these definitions, we are all crazy. I am often tempted to believe that really is the case, but then I get serious. If you have heard the rumors that the federal government wants to screen everybody for mental illness then you know what a bad idea that is. The inmates really are running the asylum.

Speaking of screening, studies have shown health screening has zero effect on overall mortality. It doesn't work. Well, actually it does work. It brings more patients into the healthcare system. In other words, more money is brought into the system.

A broad range of witnesses—from doctors, to courts, to the FDA, to journal editors, to researchers, to victims—all agree. There is a moral vacuum at the top of the healthcare industry. It isn't confined to just one industry. The author himself compares it to the tobacco industry. I would expand it to all major industries, high levels of government, the FDA, scientific journals and, it pains me to say, the grassroots. Until the grassroots lets go of its willful ignorance, addiction to convenience and naive acceptance of everything the government and industry say, we will get what we deserve. Until we stop supporting and patronizing corrupt institutions and industries we will get what we deserve.

Gøtzsche offers a number of solutions. He suggests scrapping forprofit drugs, banning trials by industry on its own products and full disclosure of all trial data. He also recommends no marketing of drugs. I'm an old dog who remembers when drug advertising was not legal in the U.S. It was a better, healthier time. These are good ideas but until the moral vacuum is removed no idea will be good enough. More rules will just mean more opportunities to ignore, corrupt or twist the rules. Raising awareness is the first step and this book certainly does that, so the thumb is UP for this book. Review by Tim Boyd

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 are peddling misinformation, and for these we will give a negative review. We also will give a negative review to a 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 print-out of your ebook or manuscript in a coil binding.

Slim Businez by Mark Cupples Herald Books

There must still be a few people out there who want to lose weight because books on how to lose weight keep on coming. Slim Businez is another one and it starts out by recognizing the fact that there is a lot of conflicting advice on this subject. Most of it comes from big industry. Cupples' advice is to think for yourself. That will be difficult for many because most of us went to schools that didn't teach you how to think. They just taught you what to think. Still, it is good advice and you should at least try. Don't be afraid. I will just briefly mention that what our culture thinks is aesthetically appealing and what is really healthy may be two very different things. That is one area where you may especially want to think for yourself.

He goes on to say that almost any diet will work if you can stick to it. That's the catch, though—sticking to it. Most people are looking for something they can do for some period of time (as short as possible of course), then go back to life and eating as usual. You need to have goals that inspire you and that you can stay with permanently. Many diets are impossible to stay on because, while they may "work" in terms of losing weight, they don't work nutritionally.

The diet primarily promoted in this book is a low-carb diet. I'm pretty sure there is no one diet that will work for everybody but this can and has worked for many. Where people usually go wrong with this diet is in trying to make it lowfat as well. I guarantee that won't work and if you try too hard you may actually kill yourself. This author does rather well on explaining what kind of foods to eat and the importance of fat, with information right in line with our teachings at WAPF.

Cupples ducks the question of whether chemical sweeteners are good for you and leaves it to the readers to think and decide for themselves. My personal thinking is that they are clearly bad but, by all means, think for yourself. He has a lot of ideas on exercise that I would mostly take as suggestions. I like to keep it simple and say the best exercise is the one you will do. Elsewhere I have read that the exercise most popular among people who live the longest is walking, which is highly recommended in this book. Not running, not killer workouts at the gym or slugging it out with a side of beef in a meat locker, not extreme sports, just walking. Period. But think for yourself.

The book offers several detailed plans for exercising and eating depending on whether you have an iron will or you are normal. There seems to be a lot of monitoring of vital statistics and weight and counting of carbs from day to day. Perhaps that motivates some people when they see even the tiniest increments of progress. I wouldn't follow any of the plans exactly because, well, I think for myself. I have some doubts about a few points in the book (like drinking a lot of water just before eating) but I think the thumb is UP for this book.

Almost any diet will work if you can stick to it. That's the catch, though sticking to it.

Review by Tim Boyd

NOURISHING SPACE WITHIN: ESSENTIALS OF SELF-CARE by Alegra Hart, ND

I learned a new word from this book. If someone had asked me how my emunctories are, I wouldn't have known whether I was being insulted or should tell them to mind their own business or both. For those who are as unenlightened as I am, emunctories are the major organs of elimination.

There is a section on food–what to eat, what not to eat and why. The section on exercise wisely recommends not overdoing it. Other sections include sleep, hormones and emotions. This book is a good, compact (less than one hundred pages) health reference which will help you avoid jamming up your emunctories. Thumbs UP. Review by Tim Boyd



The Lean Farm by Ben Hartman Chelsea Green Publishing

The standard American paradigm for success is to keep getting bigger. That's the theory. In practice what seems to happen most of the time if not always, is a company or organization keeps getting bigger until it is too big and stupid to live. Then they get bailed out by a government which is also too big and stupid to do anything right.

Ben Hartman has another idea which has worked well for him and the government hasn't had to bail him out yet. He is a small farmer in Indiana who has no desire to get bigger and goes to some effort to avoid it. Instead he looks for ways to do things smarter and more efficiently. He elaborates on a process for doing this that makes a lot of sense.

One of the first steps is to get rid of stuff. Even things that seem like they might be useful someday. Specialized tools are an example. You think you might need it someday. Well, have you needed it for the last three years? No? Get rid of it. Multi-use tools that will do the job adequately are all you need. A huge clutter of tools just makes it harder to keep track of everything and easier to lose anything. Then put those tools in a good place near where they will be used, not all in one central location where they will never be used.

Hartman is fairly ruthless about tossing extra stuff. It takes up space better used for other things. It takes time and energy just to store it and remember where it is. In general if it doesn't add value your customers want, it is just dragging you down. Some people think that having the latest and greatest technology is the key to success. It isn't. Hi-tech items are high maintenance and break. Some basic things are good, like an appropriately-sized tractor or motorized cart. Getting every whiz-bang new gadget just adds unnecessary expense, maintenance and clutter.

Overproduction is another form of waste. You are not being more efficient when you produce something your customer doesn't want. It is easy to slip into the mindset of producing what you want or think your customers should want instead of what they really want. If you have a lot of extra, you are not giving them what they want. One of Toyota's leading efficiency experts made an interesting, counterintuitive observation. In his experience, mass production is not cheaper or more efficient than small-scale production.

Another very key point for the lean farm is labor. The goal is not to go as cheap as you can on labor. With labor especially, you get what you pay for. Good labor doesn't have to put up with cheap, and they won't. High employee turnover is very expensive and very inefficient. Low-quality labor breaks things. Low-quality labor does it wrong the first time and has to do it again. . . and again. That's not cheap.

On a related note near the end Hartman includes one of many gems of wisdom from Wendell Berry: "We have made it our overriding ambition to escape work, and as a consequence have debased work until it is only fit to escape from ..."

Do we not need a sense of purpose? Where do we derive that sense of purpose if not from meaningful work? I like to kick up my heels on the beach from time to time as much as anybody but to do that exclusively for the rest of my life would be boring and pointless. This Thumbs Up book is loaded with practical advice and gives the reader much to think about.

Review by Tim Boyd

High employee turnover is very expensive and very inefficient.

A Mind of Your Own by Kelly Brogan, MD, with Kristin Loberg HarperCollins Publishers

There is something about upset apple carts that I find very entertaining so I enjoy a book that upsets a few, and this one does. A Mind of Your Own talks about depression in women but I think much of it applies to both men and women. One popular paradigm holds that depression is caused by a chemical imbalance in the brain. Dr. Brogan scrutinized this theory and found... nothing. That is, no studies that support the idea that depression is caused by chemical imbalances in the brain, lack of serotonin or any such thing. If anything, higher serotonin levels in the brain cause more problems than they solve. She goes on to say that most cases of depression are not due to any malfunction of the brain at all. If you understand how the pharmaceutical approach to psychiatry works then you already hear those apples rolling around on the floor.

So what is depression? It is not a disease. It is a symptom. Your body is telling you there is something wrong, something out of balance. There are a number of things that can trigger depression. One is inflammation in general and in the bowel in particular. Disruption in the microbiome (caused by toxic chemicals, drugs, artificial sugar, lack of nutrients or stress) is often a factor. Diabetes is another trigger.

Do anti-depression drugs work? That depends on what you mean by work. If you are hoping for side-effects like headache, nausea, insomnia, sexual dysfunction, stroke, cardiac conduction defects and increased risk of death, then these drugs are great.

A paper published in *The British Medical Journal* revealed that more than half a million people aged sixty-five or older die in the West each year from psych meds. Five of the top ten violence-inducing drugs are antidepressants. That sounds pretty depressing to me. Why do they cling to such an unsuccessful approach? Brogan gives a brief, insightful history. For a long time psychiatry didn't get a lot of respect. People have gotten very attached to the idea that you aren't doing much if you don't dish out drugs to solve every problem. When someone came up with the idea of using drugs to treat depression, the pharmaceutical industry was more than happy to help with that. A great quote right at the beginning of chapter 1 perfectly summarizes what is going on out there: "The medicalization of distress obliterates meaning and creates profit."

One favorite explanation for almost everything is genetics. I've never been real impressed by that explanation, and Brogan isn't either. Our understanding of genetics has gone through some profound transitions in recent years, and there is no reason to believe we now have it all figured out. The Human Genome Project identified twenty-three thousand genes, which sounds like a lot, but isn't nearly enough to define the diversity and complexity of the human species. Brogan answers at least part of that riddle by explaining that our human framework is occupied by trillions of bacteria that perform critical functions such as digestion and immune function. Each of the many species of bacteria has its own DNA. Epigenetics is another relatively new development. In most cases, to say the cause of an ailment is genetic is a popular way of saying. "We don't know."

This book has a good list of the leading causes of depression. Number one is drugs for birth control. The author used to think of this as a woman's right but her perspective has changed a little since she became more aware of the side effects. Blood clots, cancer, gallstones, high blood pressure and low libido are on the short list. Responsibility for birth control lands primarily on the woman in this scenario. If you really want to dig in your heels and demand that Continued on page 90.



Five of the top ten violenceinducing drugs are antidepressants.



The Fermented Man: A Year on the Front Lines of a Food Revolution by Derek Dellinger The Overlook Press

If you think that Derek Dellinger felt deprived during his year of eating only fermented foods, think again. He was not just surviving on monkish meals of sauerkraut and pickles, but feasting on delicacies like cheese, cultured butter, sourdough bread, salami and prosciutto. Plus, wine and beer are allowed—not to mention delicious beverages like kombucha.

He also tried some more obscure and less appealing fermented foods, like *ratfisk*, pickled eggs, fermented shark meat and natto. "I had to work myself up for natto," he says. "Push down a few psychological obstacles I had in my head, like the fact that I generally avoid eating things that trail tendrils of slime."

Throughout his interesting and often amusing voyage through the world of fermented foods, Dellinger often digresses to discuss key nutrition topics, like the importance of digestion and our need for fats. He deftly dismisses the arguments for a raw food diet. The very act of digestion poses a huge caloric cost, he reminds us. "Raw food necessitates a significant increase in time and energy for the body to process it into something useful, resulting in fewer calories obtained for the effort." The chimpanzee spends 48 percent of the day eating and chewing, compared to just 4.7 percent for humans. The solution is cooking or fermenting most of our foods to spare the body an excess of energy poured into digestion.

As for fats, Dellinger rightly fingers the curse of the vegetable oils and comes out fighting for butter—if for no other reason than butter makes us feel good and it gives us energy. Take good fats out of the diet and they must be replaced with carbohydrates—and we all know what that has done to our waistlines.

Man cannot live by fermented foods alone, and Dellinger looked forward to his first nonfermented food, consumed on January 1, 2015. We might have chosen a steak, or strawberries, but Dellinger tucked into the food he had been longing for—guacamole!

Some creative recipes round out *The Fermented Man*: kimchi sourdough pancakes, fermented sweet potato french fries, lacto-fermented salmon, bagal kvass and wild fermented squash beer. Enjoy!

Review by Sally Fallon Morell

Mind, continued from page 89.

right, that's fine but you might want to think that through carefully first.

Number two is statin drugs. Hormonal imbalance can often be a factor in depression. Hormones are made from cholesterol. If you have any issues with hormones being out of balance, and many do, the last thing you want to do is mess around with cholesterol.

Next on the list is proton-pump inhibitors. They inhibit vitamin B_{12} . That will always break your brain. Then we have Tylenol, the drug of choice for zombies or anyone who wants to be just like a zombie. Marching on to the next item we have Advil which is great for tearing up your

stomach and gut lining in general. Fluoride has been shown to lower IQ (which explains so much I don't even know where to start) and disrupt thyroid function, which means more hormone disruption. Rounding out the parade are endocrine disruptors (BPA, PCBs, etc.) and vaccines.

A lot of chemicals in the modern world can create problems leading to depression. Even things that sound good to most people can be trouble. Hand sanitizers have been found to enhance penetration of chemicals through the skin by up to two hundred-fold.

Given the steady climb of depression and mental illness in this country it seems clear to me that there is something fundamentally wrong with our approach to solving these problems. It is really nice to see someone willing to face these uncomfortable facts, go against the flow and suggest a different approach. Review by Tim Boyd

Eat Beautiful: Grain-Free, Sugar-Free, And Loving It by Megan Stevens from EatBeautiful.net

"Our passion for eating well was born out of our health adversities—trials I no longer regret! Healing our bodies of asthma, candida overgrowth, autoimmune diseases and more has spurred us to seek a new way of eating and living that is actually more satisfying than our previous, conventional American diet and lifestyle. We sit down to feasts three times a day. We delight in the cooking process. We have developed lots of easy and fast recipes. And we feel the difference in our bodies every meal, every day," says Megan Stevens in the introduction of her gut-healing cookbook.

Megan's story is one of healing and hope. By the age of forty, she had been diagnosed with five serious health conditions, including arthritis, Hashimoto's and other auto-immune diseases. Six years ago, she was told by a doctor that she didn't have long to live, so she and her husband said their goodbyes and she wrote memories and adoring thoughts regularly in her children's baby books—so they'd know her, and know how much she loved them and longed to live. Her children were not well, either. Each of her three children was born with asthma or serious food and environmental allergies.

Then five and a half years ago her eyes were opened to the connection between gut health and overall health. Her whole family started following a gut-healing diet—GAPS. It was their only hope for reversing the auto-immune diseases, allergies and asthma. And today, Megan and her children are well. Their health conditions are reversed or in remission. How? Not only through figuring out how to cook around food restrictions, but also through developing scrumptious recipes that made their gut-healing diet a joy to follow strictly for six years at the time of this writing.

Through these years of navigating restricted diets (often with each family member needing something a bit different), Megan became a connoisseur of the word "alternatives." She sought them out so she could make their favorite foods with ingredients they could eat and enjoy. The fruits of Megan's labor were first revealed to the world at their gut-healing cafe in Eugene, Oregon, where she and her husband dished up kefir-based frozen "yogurt" featuring seasonal fruits. Soon, they added Megan's signature grain-free panini bread sandwiches, where the oh-so-moist and satisfying "bread" was made from soaked organic nuts and seeds. This bread is revolutionary because not only is it free of starches, but it is not made of dry-tasting, potentially rancid, and nutritionally inferior factory-produced almond flour or coconut flour that so many grain-free cookbooks and recipes call for.

And now Megan brings her years of guthealing recipe creation right to us in her grainfree, sugar-free cookbook, *Eat Beautiful*. Her cookbook is suitable for the traditional food diet, GAPS, or paleo/AIP. She states, "The intention of this book is to impart a new passion in the kitchen to my readers and to provide solutions for those who are overwhelmed by new dietary restrictions." Not only does her book offer a smorgasbord of beautiful, simple and classic gut-healing recipes, Megan also teaches so that readers will learn how ingredients work in recipes and what ingredients go together. And *Eat Beautiful* is sprinkled throughout with tantalizing professional photos of the treats it contains!

> Review by Wardee Harmon from TraditionalCookingSchool.com

> > Megan's story is one of healing and hope.





The Paleo Approach: Reverse Autoimmune Disease and Heal Your Body by Sarah Ballantyne, PhD Victory Belt Publishing Inc.

What goes on in the human body is incredibly complex, to put it mildly. Early in the book is a detailed account of how the immune system works, which may leave the average reader slightly dizzy. I was, anyway. What makes me a little dizzier is the fact that our understanding of the subject is certainly still incomplete and simplistic at best. There is a reason for all the detail. The main purpose of the book is to expound on a lifestyle approach to healing from autoimmune disease. Of course diet and nutrition are strongly featured, but all aspects are addressed, including exercise, sleep and the importance of circadian rhythms in general.

The dietary approach could be described as consistent with the WAPF approach with some restrictions. As is the case with many variations of paleo, grains and dairy are not encouraged here. In the beginning stages of recovery they are strictly prohibited. Once you have recovered you may carefully introduce dairy. Grains? Forget about it. Sarah Ballantyne is not very enthusiastic about dairy but does recognize the difference between industrial strength dairy and raw and cultured dairy. She makes a point of specifying raw when speaking of allowable dairy.

Dr. Ballantyne makes it clear that you need plenty of good fat and correctly identifies what good fat is.

Genetics also come up as a factor in autoimmune disease. The author says genes account for a third of susceptibility. I'm always a little suspicious when genes are blamed. I like to see some historical perspective as a sanity check to our modern lab rat mentality, and I didn't notice much in this book. I've read elsewhere that many autoimmune diseases were rare if not nonexistent a few hundred years ago. Did our genetics really change that fast? A claim that a disease is due to a combination of environment, lifestyle and genetics is somewhat debatable. What that sounds like to me is that if lifestyle and environment aren't trashed then genetics isn't really the issue. I think in a bad environment and lifestyle any genetic makeup will suffer in some way sooner or later.

Can someone really get healthy and stay healthy on the diet described in this book? I would say yes. One of the shortcomings of some versions of paleo is lack of good fat. Dr. Ballantyne makes it clear that you need plenty of good fat and correctly identifies what good fat is. Insufficient fat can make one emotionally fragile, tired and cranky.

The Paleo Approach is definitely more restrictive than the WAPF approach. There is a long list of foods to avoid, which includes grain, nuts, dairy, eggs and alcohol on the short list (page 140). I don't know about you, but that might make me a little cranky.

I have to be careful about referring to certain versions of the paleo diet because the definition has drifted over the last decade or so and there is still debate over what paleo really is. I know paleo is a cool word and those associated with it don't want to change it, but if you are going to change the definition of a word, confusion is your destiny. You are asking for it. All of this is not necessarily Ballantyne's fault and the thumb is UP for this book. She is very clear and specific about what her approach is, and while it may be difficult for some I would take this over a vegan approach or genetically modified, chemical, pharmaceutical approach any day. Review by Tim Boyd

Tim's DVD Reviews

CDC, Vaccines and Autism Ben Swann Truth in Media truthinmedia.com/cdc-vaccines-autismcoverup/

In 1998 Dr. Andrew Wakefield published a study in *The Lancet* suggesting that there might be a link between the MMR vaccine and autism. Other studies also came out around the same time raising questions about the possibility of such a link. This prompted the CDC to perform its own study to clarify the issue. The result was published in 2004 and claimed there was no clear evidence connecting MMR vaccines to autism.

Dr. William Thompson was a key scientist involved in that study. He characterized the published results as "heavily manipulated." Some of the most significant data were thrown out, including data that showed a strong correlation between MMR and autism in African-American male children. Dr. Thompson seemed to think that was not very scientific and not very honest, but his immediate supervisors disagreed. They pressured him to shut up and go along with it. He went over their heads to the director of the CDC, Julie Gerberding. He was suspended for violating protocol.

A few months later he was given a glowing job review and a bonus. How did that happen? Well, he was very good at his job, was a key expert on other projects and oh, he was getting offers to go work elsewhere for a lot more money. The CDC didn't want him leaving and then talking.

This video reviews what happened in detail, with a specific timeline of events. When the CDC is asked about this issue they say they are investigating. They have been "investigating" for ten years. Maybe in another ten years they will have some preliminary findings. Former employees of the CDC are interviewed here and they explain that the agency was heavily politicized in the 1980s. That might explain the lack of speed at which they operate.

Thompson quit waiting for the CDC to do the right thing in 2014 and went public. He found one person in Congress, Representative Bill Posey from Florida, who would listen to him. Posey, in turn, went before Congress to report on the situation and try to get an investigation started. So far nothing has happened. The pharmaceutical industry has several lobbyists for each congressman on the hill but I'm sure that has nothing to do with it. The thumb is UP for this video.

Cook Your Way to Wellness Maria Atwood, CNHP Selene River Press

If you are looking for help making fermented foods, this is a good video. Colorado Springs chapter leader Maria Atwood demonstrates how to make a variety of ferments including kefir, whey, salsa, sauerkraut, beet kvass and kombucha—plus bone broth, butter, jerky and other things. She makes it all look easy although I'm pretty sure I could mess it up anyway.

If you have the kefir grains, which can be ordered from our Shopping Guide sources, and raw milk, kefir really is fairly easy. Salsa takes a little more work and more ingredients. The key to making butter is to know that the cream must be at room temperature or you will just get whipped cream. Atwood likes to use ice cube trays to make convenient butter lumps. It is also important to wash the butter or it will smell like ... well, never mind what it will smell like. You will know if you didn't wash it well enough.

Jerky is made from thin-sliced beef or buffalo that is salted and dehydrated. She recommends leaving the fat on, which is a good idea to balance the protein. That sounds simple enough.

Fermented grains are briefly covered to-

Former employees of the CDC are interviewed here and they explain that the agency was heavily politicized in the 1980s.

Tim's DVD Reviews

ward the end followed by helpful tips for cleaning up the mess I would make. She must have known I would be watching. The thumb is UP.

The Syndrome Freestyle Digital Media Available for rent or sale from youTube.com

Logic 101 teaches us that you can't prove a negative. If I ask you to prove you have never scratched your armpit, you can't do it. That is why, in a court of law, you must be considered innocent until proven guilty. The burden of proof must be on the prosecution, not the defense. Any court that operates otherwise is corrupt. In many cases if you have to prove your innocence you are put in an impossible position.

This video documents many "Shaken Baby Syndrome" cases where parents are being put in exactly that impossible position. Parents bring their baby to a hospital with a problem, doctors investigate, find severe brain inflammation or similar damage and call the police. The medical and court systems assume the damage was caused by violent shaking and someone goes to jail, usually one or both parents or a caregiver who was with the baby at the time.

There is a problem with this. It is known by a wide range of experts that there can be many different causes for this syndrome. There is an even bigger problem. In many of these cases, the baby's neck is undamaged. It is physically impossible to shake a baby hard enough to cause brain damage without also causing serious neck damage. So a lot of people have gone to jail and families have been ripped apart when they were not guilty. Experts have testified at trials, explaining that this syndrome can be caused by several things and cannot be caused by shaking. Sometimes the courts listen. Sometimes they don't, maybe because they are too busy scratching their armpits. Then people go to jail not because they are guilty but because they couldn't prove they weren't.

There has been a lot of resistance to this truth even though a number of well-qualified experts from several related fields have stood up for it. But progress is being made. Some courts are throwing the cases out after preliminary hearings. Other cases that have already been decided are being overturned.

There is still a lot of work to be done. One thing that might be slowing it down is the connection between this kind of syndrome and vaccines. We all know what paragons of virtue vaccine manufacturers are and how they fervently believe that the greater good is better served by sending innocent people to jail than to reveal awkward truths that might threaten their precious profits. It will take a lot of effort to send the big pharma trolls scurrying back to the fiery underworld whence they came. The thumb is UP (for this video, not the trolls).

HARVEST FESTIVAL IN BERN, SWITZERLAND

Die Sichlete is a September festival that celebrates the return of farmers from the Alps and also provides a harvest thanksgiving. It draws children and grown-ups of all ages by the thousands to learn and enjoy the farm animals. Farmers

bring their mountain cheeses and other self-produced products to the city for sale.

In preparation for the Sichlete, beautiful head-dresses for cows are prepared. The morning of the festival farmers parade about twenty decorated cows from the outskirts of the city to the square in front of the capitol building.

In the afternoon, the young farmers get ready to milk the cows. Pitchers are then filled with milk and cups provided to anyone who wants to try the fresh, warm, raw milk.

But small farmers in Switzerland are in trouble. Big industry produces milk cheaper and cheaper. How can the general small farm with an average of twenty-four cows survive? As one of the farmers organization puts it: "We are standing at the edge of the cliff!"



Legislative Vpdates

POLICY UPDATE By Judith McGeary, Esq.

GMO LABELING

For over a year, Big Agribusiness and Big Food companies have been urging Congress to overturn Vermont's law for mandatory labeling of GMOs before it goes into effect on July 1. Last summer, the U.S. House of Representatives passed a bill that would have overturned all state laws on labeling of GMOs in favor of the mirage of federal voluntary labeling. As we reported in the Winter 2015 issue of *Wise Traditions*, the Senate Agriculture Committee approved a Senate version of the bill in early March, leaving it just one step away from passage.

Thanks to the grassroots outcry, however, the Senate failed to muster the necessary sixty votes to move the bill forward, effectively killing it. Since then, Congress has been quiet on this issue.

In the meantime, Campbell's has publicly announced that it would label all of its products containing GMOs nationwide. Campbell's also pledged to support a mandatory nation-wide GMO labeling bill, withdrawing from the industry coalition that has opposed mandatory labeling for so long. Kellogs and Mars have also announced that they will label nationwide, because it makes more sense to do so than to segregate products that will be sold in Vermont; the tone of their announcements, however, indicates that they have not dropped their opposition to mandatory labeling and will continue to seek to block it politically.

A recent report from a New York activist indicates that other companies have quietly started labeling without making any public announcements; packages of candy and chips from multiple other companies bear labels that read "produced with genetic engineering," or "partially produced with genetic engineering," the language dictated by the Vermont law. Contrary to industry fear-mongering that such labeling would dramatically increase food prices for American consumers, the labeled candies sell for the same price as the unlabeled.

While the labeling of candies may not be of immediate personal significance to people following a WAPF-style diet, these developments are still of vital importance to us all. On-package labeling provides a realistic opportunity for consumers to start to avoid foods (of whatever kind) that contain GMOs—and by doing so create market pressure for more non-GMO products and a food supply not dominated by these transgenic crops controlled by a few large companies.

While these are very encouraging developments, we know that the corporations are still trying to convince senators that QR codes (scannable designs that take the consumer to the company's website) are valid alternatives to onpackage labeling. (See the Winter 2015 issue of *Wise Traditions* for more discussion about QR codes.) But the longer we stall any action by Congress on this issue, the more likely we are to succeed. Once the companies have actually implemented on-package labeling, it becomes much harder for them to convince anyone that it's too expensive or difficult to do what they've already done.

TRANS-PACIFIC PARTNERSHIP TRADE AGREEMENT

No news is also good news on the Trans-Pacific Partnership Trade Agreement (TPP). Although Congress gave President Obama extensive authority to negotiate trade agreements under the so-called "fast track" process, Congress still has to vote to approve the final agreement. While attempts to stop such approval have repeatedly failed over the last twenty years, Judith McGeary is the Austin, Texas, chapter leader, an attorney and small farmer, and the executive director of the Farm and Ranch Freedom Alliance. She has a B.S. in biology from Stanford University and a J.D. from the University of Texas at Austin. She and her husband run a small grass-based farm with sheep, cattle, horses, and poultry. For more information go to farmandranchfreedom.org or call (254) 697-2661.

it appears that we now have a realistic chance of stopping the TPP.

Because of the opposition to this massive trade agreement, President Obama has predicted that he may have to wait until the post-election lame duck session in order to get Congress' approval of the TPP. While stopping Congress from acting during a lame duck session is difficult, since they no longer have to worry about an election in the near future, it is not impossible. The simple fact that the President has admitted that the opposition is so great is very telling.

While we wait for the TPP to be brought forward for a vote, we have to continue to educate Congress about how the TPP favors foreign companies that raise food with lower standards, undercutting locally-raised food and American farmers. Over one hundred sixty agricultural and rural organizations recently sent a letter to Congress pointing out that "the main beneficiaries of the TPP are the companies that buy, process and ship raw commodities, not the farmers who face real risks from rising import competition." The TPP also undermines inspections of imported foods, further disadvantaging American farmers and producers. Most troubling, the TPP would empower thousands of foreign companies to use the "investor suit" provisions to challenge federal, state or local laws that they claim interfere with their expected profits, bringing suit against our elected officials in accountable international tribunals.

Please watch for action alerts from the Weston A. Price Foundation, and add your voice to the effort to protect our economy and our sovereignty.

LOCAL MEAT PROCESSING

While bad legislation is stalled, there is still some movement on one of the few pieces of good legislation for the food movement: the PRIME Act, HR 3187. This bill would allow farmers to take their livestock to "custom" slaughterhouses, which are not subject to the federal inspection requirements, and sell the meat (including individual cuts) directly to consumers and retail outlets within their state. This bill returns power to the states, and has the potential to significantly reduce the burdens and expense placed on small-scale livestock producers raising food for their local communities.

HR 3187 now has twenty co-sponsors from both parties, and has been joined by a companion bill in the Senate, S2651, filed by Senator Angus

King (I-ME) and co-sponsored by Senator Rand Paul (R-KY). Even if you have called before, now is a good time to call and encourage your representative and senators to support states' rights and small farmers by signing on to these bills! You can find out more information about the bill and how to take action, including sample talking points for your call, at http://www.westonaprice.org/get-involved/legislative-updates/ federal-policy-update/.

GRASS-FED LABELING

A few years ago, the USDA's Agricultural Marketing Service (AMS) adopted a standard for "grass-fed" labeling claims. The label was aimed at addressing the problem that some companies were labeling beef as "grass-fed" even if they fed large amounts of grain in the final months of their lives, simply because the cattle had eaten grass for the majority of their lifespan before that. While addressing this abuse was important, USDA's standard was very problematic, and allowed animals to be confined in dirt pens while being fed hay, as well as being given hormones and antibiotics.

Earlier this year, the AMS withdrew the standard. It wasn't because the agency recognized that consumers wanted a more robust standard, but because there was an interagency dispute over jurisdiction. As a result, right now, there is no government standard for what "grassfed" means.

There is still government involvement, however, since the Food Safety Inspection Service (FSIS) approves labels on meat products and can deny any label claims that it finds are "misleading."

CALIFORNIA SEED SHARING BILL

California is home to nearly fifty seed libraries and many more seed exchanges and seed swap events that are threatened by unclear language in the state seed law, which could impose labeling, testing and permitting requirements on them. The threat of enforcement actions has grown together with the increasing patenting of the seed supply and the takeover of small seed companies by huge corporations like Monsanto.

AB 1810 exempts seeds that are shared through libraries and exchanges from testing or labeling requirements; it also exempts those involved in seed sharing from having to pay to register with the state. As introduced, AB 1810 would have also exempted "microenterprises," those that sell less than five thousand dollars annually in seeds. Unfortunately, the commercial seed industry and industry groups such as Farm Bureau opposed any further exemption, and the bill was amended to exempt only noncommercial activities.

AB 1810 passed the California Assembly by a very strong vote in late April and was sent to the Senate. To stay informed on its status and how you can get involved, visit The Sustainable Economies Law Center at www.theselc.org.

If someone wants to put "100% grass-fed" on the label of their meat, FSIS has the authority to require them to show that the animals are 100% grass-fed. But the agency typically requires nothing more than a statement from the producer claiming that the label is accurate; very rarely is any documentation requested, and there is no process for verifying the information. Moreover, if someone wants to put "grass-fed" on the label, it's up to the FSIS to decide whether or not it's misleading when the animals are not entirely grass-fed; the agency has not required those two terms to match up in the past.

So, yet again, the burden falls on the consumers to sort through a confusing maze. The American Grassfed Association has an "AGA-Approved" label for grass-fed meats, based on a stringent private certification program, and it is working on a set of standards for dairy. In the meantime—and even after it is established—the best option is to know one's farmer.

BEING AT THE TABLE

"You're either at the table, or you're on the menu." All too often, good people let their distaste for politics or big business deter them from engaging with the political process—and the all-too-common result is that a good cause ends up in trouble.

Often, being involved takes the form of mundane or even boring work: simply being places and engaging with the decision makers and other stakeholders. But that involvement is essential to long-term power building for our movement.

Consider what happened with the National Animal Identification System (NAIS), a plan to require property registration and electronic tagging and tracking of almost every livestock animal in the country. In late 2005, small farmers became aware of the plan when implementation began at the state level. This plan was developed over more than a decade, at public meetings and events hosted by USDA and large industry players. By the time small farm advocates became aware of NAIS, it was almost too late to stop it. Thanks to an amazing grassroots campaign that brought together thousands of people from all walks of life and all political beliefs, we did stop it. But we cannot afford to be caught so far behind again.

For the last six years, I have represented small farmers on the USDA Secretary's Advisory Committee on Animal Health (SACAH). This has helped us stay informed on what industry and the USDA are planning, head off some problems early in the process before they gained too much momentum, and even get a few positive developments in.

For example, at the most recent meeting, the discussion about foot and mouth disease took a turn back to Animal ID. Industry representatives and government officials both pushed for mandatory premises ID and promoted mandatory electronic ID as a "vital" part of addressing disease. Without a representative for small farmers at the table, the committee would have almost certainly adopted a resolution urging USDA to move back to the NAIS model (although without using the name). But the committee did not do so precisely because small farm reps were on the spot to oppose such a recommendation. Obviously, it doesn't end with that—but steps like this help keep us from the sort of crisis we faced in 2005.

On the positive side, there has been a significant shift in both the industry and government attitudes about foot and mouth disease more generally since 2005. Back then, both Big Agribusiness and the government promoted a "stamping out" approach, under which the government would kill any infected animals-and all susceptible animals within a ten-kilometer radius of it, and keep expanding the kill circles until they could be certain there were no more exposed animals. As the evidence about both the futility and the extreme costs of such an approach has mounted, however, even the big players have recognized that this approach does not make sense. While they still promote it as a solution to a "small, localized" outbreak, the main focus has shifted to developing a viable vaccine response. The committee wrote strong recommendations to improve the country's ability to respond quickly with vaccinations in case of a large outbreak. The recommendations include urging the USDA to consider the needs of small-scale producers and those raising heritage breed livestock in determining how to distribute vaccine.

These are small steps toward shaping government policies that are workable for our farmers. If we take dozens and hundreds of these small steps, over time we can see real change. So look for opportunities to be at the table. Go to local meetings about county land use, visit with your state legislators or their staff at a community event, seek appointment to a state ag advisory council—there are numerous ways and places that you can become part of the discussions.

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A Campaign for *Real Milk*

BOGUS ACCUSATIONS THAT RAW MILK CAUSED ILLNESS By Pete Kennedy, Esq.

As demand for raw milk has increased, greater numbers of people in recent years have ignored the warnings of the U.S. Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), state public health agencies and their lackeys in the mainstream media about the health risks of consuming the product.

With more states legalizing raw milk sales and raw milk access increasing, the opposition has resorted more to shoddy science, abandonment of due diligence in investigations, and the loss of whatever integrity it has left in trying to blame foodborne illness on raw milk consumption. Two great examples of this have occurred in recent months regarding foodborne illness outbreaks allegedly caused by raw milk consumption in West Virginia and a "multi-state" outbreak attributed to the consumption of raw milk products produced by the Pennsylvaniabased dairy Miller's Organic Farm.

On March 3, 2016, West Virginia Governor Earl Ray Tomblin signed into law a bill that legalized raw milk distribution through herdshare agreements. The new law was a huge setback for the raw milk opposition; West Virginia previously had the most draconian laws in the country on the books, prohibiting the sales of raw milk for both human and pet consumption as well as banning herdshares. Shortly after Tomblin signed the bill, some West Virginia legislators celebrated by drinking raw milk; subsequently, several of those legislators became sick and that's when the media went into overdrive.

Reports on the legislators' illness were not only circulated around the state but also nationally. Media such as *The Today Show* and MSNBC carried the story, describing the irony of how legislators who had just voted to legalize a product were now sick from consumption of it. The story was an effective propaganda tool discouraging legislators in other states from voting for pending raw milk legislation; raw milk supporters were worried about the story killing bills they were working on.

The problem was that none of the media reporting on the illnesses had bothered to check the evidence on the source of the outbreak. If they had, they would have learned that the stomach flu was going through the legislature and capitol city. Legislators who did not drink the milk were getting sick, and some even became ill before the celebration took place. One delegate who did drink raw milk and was hospitalized was told it was a stomach virus. About a month after the media headlines blaring that raw milk caused an illness outbreak, the West Virginia Department of Health and Human Resources issued a press release on its investigation into the illnesses stating, "Three ill persons went to an urgent care or emergency room. Based on record review, three patients reported raw milk consumption. No ill persons required overnight hospitalization. No milk was available for testing. Because of the limitations of this investigation, no conclusions can be drawn about the extent of illness, etiologic agent, or the mode of transmission."1

Kelli Sobonya of the West Virginia House of Delegates summed up the reaction to the media's behavior: "People I speak with are disappointed with the media doing a report on a rumor. Had they dug deep enough they would have learned of the numerous legislators who were victims of the stomach virus. . . No wonder people are tuning the news out and no longer tuning in. Universities should start re-emphasizing responsible journalism in their curriculum."²

Shortly after the unfounded accusations in West Virginia, CDC set a new low for credibility by publishing a report claiming that Miller's Organic Farm of Bird-in-Hand, Pennsylvania



A Campaign for Real Milk is a project of the Weston A. Price Foundation. To obtain some of our informative Real Milk brochures, contact the Foundation at (202)363-4394. Check out our website, RealMilk.com for additional information and sources of Real Milk products.

The seventythree-year-old who died, Christa Rittel, had advanced cancer and was undergoing intensive chemotherapy.

was responsible for a death in Florida and an illness in California from the consumption of Miller's raw milk. The CDC report stated, "In November 2015, samples of raw chocolate milk were collected from a raw milk conference held in Anaheim, California (the conference was actually the Weston A. Price Foundation conference where local health officials seized raw dairy products from Miller's). The raw chocolate milk was produced by Miller's Organic Farm. The U.S. Food and Drug Administration (FDA) isolated listeria from the raw chocolate milk and conducted WGS (whole genome sequencing) testing on the isolate to get more genetic information about the bacteria. On January 29, 2016. FDA informed CDC that WGS determined that the listeria bacteria from the raw chocolate milk was closely related genetically to listeria bacteria from two people in two states who got sick in 2014, one from California and one from Florida."3 The Florida victim was seventy-three years old and the California individual was eighty-one.

Journalist David Gumpert and activist Liz Reitzig did some great investigative work exposing the weakness and lack of integrity in the CDC's claim.⁴ The seventy-three-year-old who died, Christa Rittel, had advanced cancer and was undergoing intensive chemotherapy; she also had gastrointestinal pain. Two or three weeks after suffering a stroke in North Carolina, she had come to Florida to stay with her son's sister-in-law, Peggy Stevenson. Rittel had listeria in her system at the time of her death, but according to Stevenson, who is a member of a private association that gets food from Miller's, she never drank any raw milk before passing away. Stevenson told Gumpert that she planned to write CDC expressing outrage on how the agency used Rittel's death to further its anti-raw milk agenda.

According to Gumpert,⁵ the California individual was a man who consumed raw buttermilk; CDC obtained information on the illness (a three-week bout with diarrhea) from the man's physician. The man is diabetic, blind and has a pacemaker; his son-in-law consumed raw buttermilk without any problem.

The two cases of listeriosis were identified by state public health agencies based on laboratory tests of the National PulseNet database. According to CDC, "PulseNet performs DNA fingerprinting on listeria bacteria isolated from ill people by using techniques called pulsed-field gel electrophoresis (PFGE) and whole genome sequencing (WGS). CDC PulseNet manages a national database of these DNA fingerprints to identify possible outbreaks."⁶

A match was made to the genetic characteristics of the pathogen found in the two individuals and the samples of the chocolate milk. A CDC official told Gumpert that the isolates from the "raw milk product" were "very similar" to the patient isolates.⁶ According to non-CDC experts the journalist spoke with, "very similar" is not the same thing as an exact match. The experts identify the genetic similarities visually, a rough science, and similarities are "common in dozens or even hundreds of foods" according to one expert Gumpert spoke with. Adding to the skepticism is the fact that CDC records show no attribution of listeriosis to fluid raw milk consumption going back to at least 1972.

Gumpert's detective work showing the glaring weaknesses in the CDC report has not staved off further government investigation of Miller's Organic Farm and its owner Amos Miller. Both the U.S. Department of Agriculture (USDA) and the Pennsylvania Department of Agriculture have been on the farm since the report was published, and the U.S. Department of Justice is threatening legal action if Miller does not let USDA conduct a full inspection of his facility.

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Healthy Baby Gallery



This is Asia Seraphine pictured at fourteen months while riding on her goat. Mom and dad followed WAPF dietary recommendations since before her conception, and Asia was born a strong, healthy baby. She was exclusively breastfed for her first seven months, and still enjoys mum's milk at fourteen months. She has been taking cod liver oil straight since four months with no complaints-to mom and dad's surprise! Alongside mum's milk she enjoys a rich diet of bone broth, liver, fish, fermented foods and beverages, and plenty of organic vegetables and fruits. She has never needed a single medicine! "She is a lively, intelligent and social baby, and our greatest treasure. We are grateful to WAPF for all the excellent advice!"



Ryan and Danielle Secrest of Pompano Beach, Florida are the proud parents of their first baby, Chloe Secrest, shown here with a full head of hair at three and one-half months. She was born right on her time at forty-one weeks weighing almost nine pounds. Mama Danielle enjoyed a WAPF diet with fermented cod liver oil, butter oil and raw milk daily.



Isaac Julian Walsh was born in Sydney, Australia on March 12, 2016. At forty-two years old, his mother had an easy pregnancy and was still doing long hikes two weeks before he was born and working until the day with lots of energy. After eating a WAPF diet for seven years of all organic and locally produced foods including cultured butter, full-fat dairy products, bone stock, sauerkraut and grass-fed paddock eggs with occasional liver and raw milk, his mother looks forward to continuing a nutrient-dense diet and observing his development. Isaac was born a strong boy with a full head of hair. Now at ten weeks old he continues to sleep well, has a calm disposition and outgoing personality. He receives many comments on his alertness and movement, in-

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STILL SERVING AFTER SIXTEEN YEARS!

Our first chapter list in the Spring 2000 issue of *Wise Traditions* contained eleven chapters. By the end of 2000, we had thirty-nine chapters. Today, sixteen years later, we now have five hundred twenty-seven!

We have eleven chapter leaders who started in 2000 and are still volunteering their time as beacons of light, educating and guiding people to nourishing, healthy foods. We salute the following:

Started Spring 2000:	Louise Turner (MA originally, now NH)	
	Kim Lockard (MI)	
	Kathryn Stockdale (OH)	
Started Summer 2000:	Doug Flack (VT)	
Started Fall 2000:	Bari Caine (CA now NV)	David Wetzel (NE)
	Thomas Earnest (NM)	Dina Falconi (NY)
	Jill Teibor-Franz (NY)	Silvana Castillo (NS, Canada)
	Joseph Ouimet (ON, Canada)	

"Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only that that ever has." Margaret Mead

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WAPF DC CHAPTER AT THE GROW YOUR HEALTH EVENT

LEFT: Gina Rieg and chapter leader Hilda Gore provide WAPF info at our booth.

RIGHT: Hilda Gore (front right) represents the WAPF diet on a "Healthy Eating" panel, moderated by Jack Moore (back right). Other panelists represented the paleo, raw and vegan diets.



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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 LIST SERVE

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

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> The Weston A. Price Foundation currently has 525 local chapters; 419 serve every state in the U.S. plus the District of Columbia and 106 serve 27 other countries.

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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.
Local Chapters

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WAPF IN CHILE

Cayhaique, Chile chapter leader Ann Michael at the Fundo Panguilemu Holistic Management Food Fair, March 18-19, 2016. She gave away two hundred fifty of the main Spanish brochures and a few of the English ones. The event was held in the Plaza de Armes, through which many people walk to get from one side of the downtown area to the other. Thank you, Ann, for reaching so many new people!



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MS

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Thomas Jefferson

ОН

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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!

DVDS

Share your passion for food with friends and family! The Diet for Human Beings affirms our human requirement for fats, with less emphasis on starchy carbs. "An Hour To Watch - 30 Days To Try - Your Life Will Never Be The Same" on dietandhealth.com.

EMPLOYMENT OPPORTUNITIES

A lovely, well appointed cottage, gardens, pool, labyrinth and more awaits a motivated couple interested in sustainable healthy living and exploring New Zealand. See woof website for how this works. Email Lyn at 1 gardenstone1@gmail.com for more information.

Farm family or individual needed to help set up and live on pristine 164 acre former raw dairy farm and cheese making facility in SW Washington state. If interested, please send email to Lawren@wellaroo.com with subject line: "dairy farm".

HIRE STOOL DONOR- Child with autoimmune disease needs fecal transplants. Donor WAP-type diet. Adult or child over 1 year. FTP used successfully for son. (325) 261-8870 cececebrown@gmail.com. Per GI-doctor, son needs to continue FTP for limited course. Prior donor moved overseas.

Mesa Farm Market, located 12 miles from Capitol Reef National Park in central/southern Utah, needs a farm manager. The current manager is retiring. This is a wonderful longterm opportunity for a person or persons truly interested in a healthy and sustainable lifestyle. Pastured goats, raw milk, cheese, eggs, chickens, pigs, organic produce, orchard, fermentation, artisan sour dough bread etc etc. Small market on site and other business opportunities available. Infinite opportunities. For more information see mesafarmmarket.com; facebook.com/pages/ Mesa-Farm-Market/259163903354?ref=hl or mail us at mesafarm@mesafarmmarket.com

The greatest fine art of the future will be the making of a comfortable living from a small piece of land.

EMPLOYMENT OPPORTUNITIES

WAPF-Inspired Fine Dinig Restaurant Now Recruiting Talent. Farmageddon filmmaker, Kristin Canty is hiring talent for her naew venture, Woods Hill Table, a traditional foods restaurant in her home town of Concord, MA. To our knowledge, this is the first-ever WAPF inspired fine dining restaurant. From frying in beef tallow, soaking grains, and raw fermented foods to serving kombucha flavor of the day on tap, Kristin is implementing the WAPF dietary guidelines and changing restaurant history. If you'd like to be a part of this exciting culinary project, her Concord Restaurant Group is looking for a service manager, servers, reservationists, chefs and line cooks. Contact Kristin@woodshilltable. com 24 Commonwealth Ave. Concord. MA. 01742 woodshilltable.com, jobs@woodshilltable.com, (978) 369-6300.

HEALING ARTS

Integrative Diagnosis (ID) was developed by John Kozinski MEA to help you understand your overall health condition so traditional foods can be used for your healing or health maintenance needs. For ID Classes or a health consultation call: (413) 623-5925 macrobiotic. 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 EF-FORT TO END FLUORIDATION - You have the right to safe drinking water.

KEFIR: Making kefir at home just got easier with KEFIRKO! This innovative new tool from Europe allows you to culture and strain your milk or water kefir grains with ease. And the community at KEFIRHOOD.COM will connect you with others in your area who have kefir grains to share! To learn more about KEFIRKO, visit kefirko.com.

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TRADITIONAL HEALTH FIRST. Offering all Green Pasture's products including Blue Ice Fermented Cod Liver - Fermented Skate Liver Oil - X Factor Gold High Vitamin Butter Oil both in liquid and capsules, Infused (with FCLO) Coconut Oil and Pure Indian Foods Ghee. Prescript Assist Probiotics, **free shipping**. Email or call for information about shipping, referrals, auto resupply, and any general questions or information about these superfood products. Visit THF on Facebook. To order: email John@TraditionalHealthFirst. com or call John Delmolino, Amherst, MA. (413) 210-4445.

VITACLAY Chef Smart Organic Multi-cooker. No lead, no aluminum, no chemicals. Makes perfect germinated rice, quinoa, savory stews, soups and nutritious bone broths or steamed fish or veggies. Plus Bonus low temperature yogurt maker! "Meals are super flavorful and nourishing because VitaClay seals in the beneficial nutrients and enzymes with an ancient secret–organic unglazed Zisha Clay." –Mike Fenster, Cardiologist/ Professional Chef/Author, VitaClayChef.com or call (408) 329-7392.

HOMES & LAND

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For Sale: Pristine Spring with 160 AC in South Georgia. 20 Min from Tallahassee, Fl. It comes with bottling permits. Water test and more info available. If interested, Call Joanne Mendez, Realty (850) 445-1910.

Home Opportunity. Acreage with a 4-bedroom house for rent on organic farm in south central South Dakota. Barn, corrals, and small pastures available. Located on a gravel road 2 ¾ miles off state highway. This is a second farmstead a mile from our farmstead. High speed internet access. Good opportunity for a home-based business. Rental rate depends on what you use. (605) 842-3108.

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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.

WAPF RESEARCH

STUDY ON HEALTHY BABIES: Johanna M. Keefe, MS, RN, GAPs, Advanced Holistic Nurse, & Gena Mavuli, MA., NC are seeking volunteers for a PhD research project in Transformative Studies through CIIS (California Institute for Integral Studies). If you have had a healthy baby using the WAPF dietary guidelines, they would like to hear from you. they would like to interview you by Skype or Facetime, or in person if you are located in New England, Northern California or North Carolina—. https://realfoodsuccessstories. wordpress.com/, growingsuccessstories@ gmail.com, (978) 290-0266.

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