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Wise Traditions

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



Volume 26 Number 3

Fall 2025

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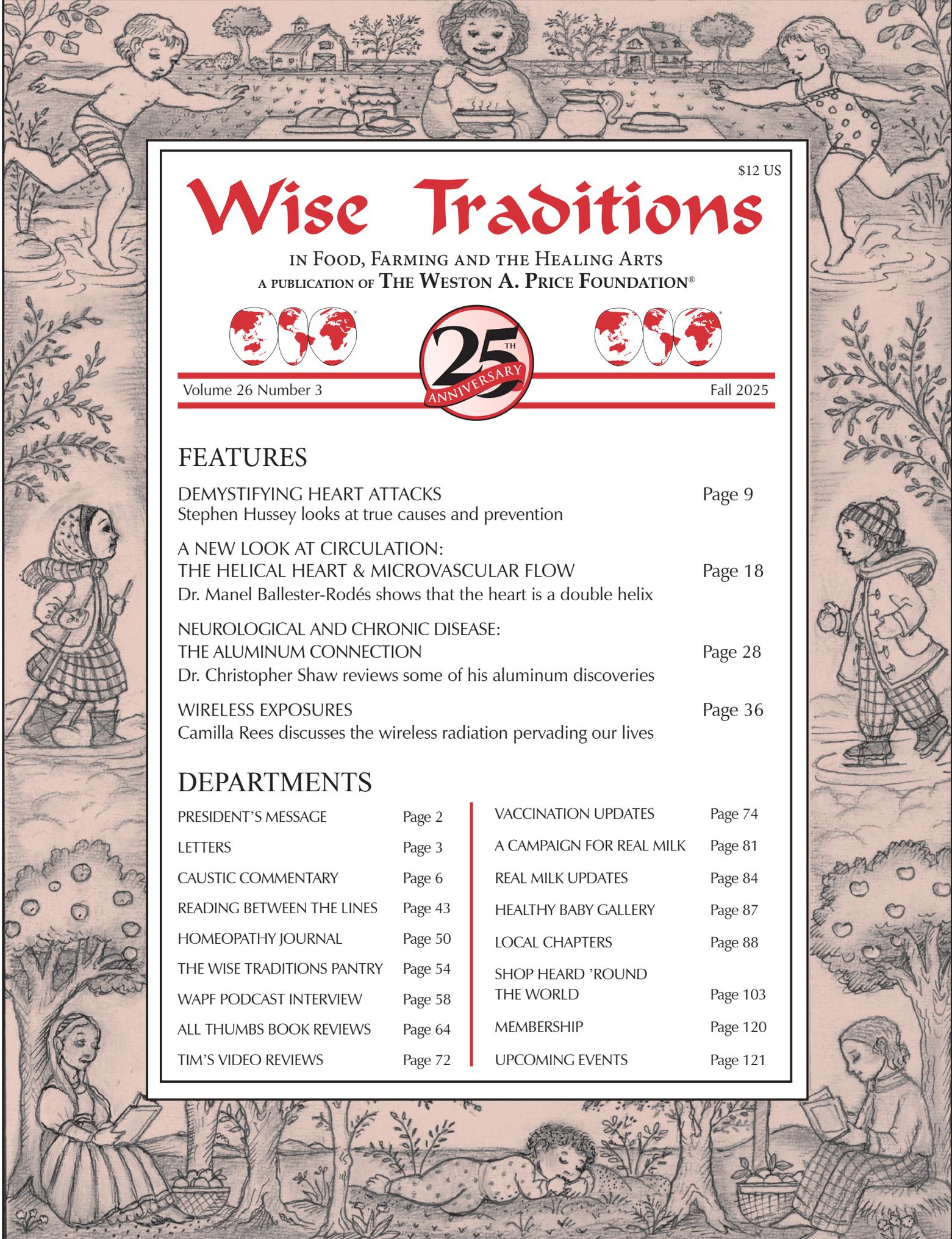
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THE WESTON A. PRICE FOUNDATION®

Education ♦ Research ♦ Activism

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

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

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

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

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



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President's Message

Recently the *Wall Street Journal* ran an article that described the Weston A. Price Foundation as advocating a “carnivore” diet, that is a diet very heavy on meat with little in the way of plant foods. While the Weston A. Price Foundation certainly advocates a diet rich in animal foods, this description of our teachings really misses the mark.

The main characteristic of the Wise Traditions diet teachings is that we advocate for nutrient-density, especially high levels of the “fat-soluble activators” found in animal fats, organ meats and certain seafoods like shellfish and fish eggs. In addition to choosing foods especially high in fat-soluble and other nutrients, we also advocate avoiding foods and dietary practices that block or reduce nutrients in our food.

The practice of eating a lot of meat, especially lean meat, can indeed be counterproductive to human nutrition. That's because when we eat protein, the liver releases vitamin A to process that protein. And if the protein we are eating contains little or no fat, fat that provides vitamin A, we eventually become depleted of this critical nutrient on a high-meat diet. Traditional people never ate meat without the fat!

Another problem with the high-meat diet is that meat contains a lot of methionine. Some symptoms associated with high methionine levels include nausea, drowsiness and irritability. Long-term, too much methionine is associated with cardiovascular risk.

The solution is to eat meat with broth—a reduction sauce or broth-based gravy—or to eat long-cooked stewing meats, which have a lot of connective tissue, with their stewing juices. Collagen in connective tissue and bone broth is rich in glycine, and it is glycine that mitigates any detrimental effects of excess methionine.

So there's a way to eat meat to ensure that it is nutrient-dense and not a nutrient drain: eat meat with the fat and eat it with a good source of glycine. That also means consuming good sources of vitamin A (with its co-factors vitamins D and K₂), such as cod liver oil, liver, butter from grass-fed animals and egg yolks from pastured hens, and not just meat.

In a reply letter to the *Wall Street Journal*, honorary board member Pam Schoenfeld and I pointed out that traditional diets contained varying amounts of plant foods. With plant foods, as with animal foods, proper preparation is key. Bread that is sour leavened will be much richer in nutrients than unleavened or yeasted bread; and the antinutrients that block mineral assimilation and digestive enzymes will be largely neutralized. Cooked vegetables release their minerals for ease of digestion and are lower in irritating components and anti-nutrients. By contrast, milk products provide the best nutrition when they have not been heated.

Attention to these important details ensures a diet that is nutrient-dense and easy to digest. 



Letters



BORON TO THE RESCUE

I am writing about the suggestion to use boron published in the *Wise Traditions* journal (Fall 2024).

I started doing this about a month ago due to a knee injury and I am now pain-free! Who knew something so simple would have such dramatic results?

I have started adding a teaspoon of the boron solution to my mom's water every day without her knowledge because she rejects everything I say, and I have not heard her complain about pain since I've been doing it.

Doctors say that my pain is related to arthritis and nothing about loss of cartilage. They have no answers for me that actually work. I highly suggest that everyone check out that little infographic, and try it for yourself.

Thank you, Weston A. Price Foundation for excellent articles in the journal!

Katrina Fournier
Hazel Park, Michigan

THE WISE TRADITIONS BABY FORMULA

I used the homemade formula, based on raw milk, with one of our daughters. I breastfed exclusively for about six months and then transferred to the formula. It wasn't what I wanted to do, but we were dealing with frequent hospital stays and my full-time job. I just couldn't maintain a good milk supply.

My daughter was born with heart defects that were later corrected (ASD and VSD) by surgery, and then she ended up with a pacemaker as a result of an accident during a surgery. All this

to say that she entered life with some real challenges. She was behind developmentally as a result of having had congestive heart failure for quite some time. At the age of five months (when the surgery was done to repair the holes between the chambers of her heart) she still weighed only nine pounds.

I used this formula, and thankfully even the ladies at the daycare gave it to her even though it certainly looked strange, because I used yogurt (no access to raw milk).

It took a little while for her to get used to it. I introduced it slowly, adding just a little into breast milk, and then gradually increasing the percentage of formula until she happily accepted this formula. I still tried to give her breastmilk as much as I could over the next six weeks or so, and then it was over.

My daughter did great with this formula. She gained weight appropriately. There were no problems with it at all except for the work involved in putting it together. I sometimes froze it in breast milk freezer bags.

My daughter gradually caught up. She didn't begin to stand until about eighteen months of age. By the time she reached kindergarten, she was on track enough to enter with her own age group. She seemed a little immature compared to others, but by second grade she was completely on target. She is a healthy thirteen-year-old today, on the swim team and getting good grades.

I mention all that just because I know she was living on this formula during some critical periods of development and recovery. It did not harm her. She also has no allergies, even though my husband has asthma and strong al-

lergies, and some of her siblings have had milder versions of this. And she was never a picky eater. Maybe it comes from drinking such a strange concoction as a baby?

So, if you are considering using this formula, I highly recommend it. I would certainly use it again if I were unable to breastfeed or needed to supplement breastfeeding.

Krista G.
Los Alamos, New Mexico

INSULIN RESISTANCE

I interviewed a doctor that conducted research on indigenous peoples in Canada. They are an interesting group to study because they have ten times the rate of insulin resistance compared to the rest of Canada's population, and they most recently ate their native diet only fifty to sixty years ago, at which time they were not plagued with insulin resistance.

It was a study funded by Health Canada. The study recruited practically an entire town on Vancouver Island, employing a diet to mimic their former diet. The former diet was high in saturated and monounsaturated fats from oolichan fish, which was a very important part of their diet. The grocery store even stocked the high-fat foods needed for the study.

The results were astounding: complete reversal of diabetic and metabolic symptoms across the board. I think the study was less than a month and the diagnostic tests proving the reversal were quite convincing.

There are many such studies, but I like this one because it was so recent that the native peoples ate their native



Letters



diet, and the results are indisputable.

I do think some people and body types thrive with a little different mix of carbs to fats to proteins. It seems that those in the North like the Eskimos and the native people of Canada do better with a higher fat diet.

Lawren Pulse
Montesano, Washington

THE UBER DRIVER'S STORY

Many are having joint problems and replacements these days. It is unfortunately normalized. At my forty-ninth class reunion last August, one of my classmates confessed to having two replacements already. She is sixty-six. This is definitely not a problem of over-use of the joints, as many try to say!

None of my ancestors had such illness, ever. When they died, my dad was ninety-one, mom ninety-six, my grandfather one hundred two; none had such structural issues. All of them worked into their late eighties. My grandfather rode his bike until he was eighty-six. My mother climbed ladders to pick apples and washed slanted, heavy rooftop windows at eighty-eight, standing on her kitchen sink just to reach, turn them and wash both sides.

I got driven home by an African Uber driver yesterday (about thirty years old) and took the opportunity to ask him questions. He had a heavy accent. He grew up in Africa in a small village, French was his native language. He told me that his family grew everything, had goats and sheep, and he knew about drinking raw milk and blood! The toothbrush was a stick from a tree, prepared by making bristles. There was no sugar. No one in his village had tooth

decay! The oldest in the village was a healthy one hundred forty-five years old and only passed recently! Another was one hundred thirty-five years old.

Because I'm a "completely recycle person", and knowing how bodily waste was collected and always used in gardens by my ancestors, along with animal waste, I asked him about humanure. "Yes! Of course we did this and spread it on our gardens!" Before mom passed, I asked her how long they waited to spread the humanure onto the gardens. She replied, when the holding tank, which was outside next to the garden and below the toilets, was full. You emptied it with the *gohn*, which was a long-handled pole with an attached pot. It was diluted and put on the gardens. At least thirteen people lived at that house, so there was a lot of humanure!

I was thrilled to have had the opportunity to speak with the Uber driver. He mentioned how Americans constantly have "health" checkups, every six months or every year, and he knew that diseases begin with poor, undernourished diets. He knew about GMOs and all the other stuff. If one looks at the food intake, or food diaries, it is not difficult to see how people are malnourished. Got nothing to do with anything else.

I asked him where he shops for groceries. He replied, "It might be more expensive, but we have deliveries direct from my home country—and I pick them up in New York!" Wow! I told him about Dr. Price and he reassured me that he will teach his three-year-old son about good nutrition

Minerals, minerals, minerals, and of course vitamins and no junk food.

That was basically the Uber driver's message, which he was so eager to share with me.

Judith Mudrak
Southampton, New Jersey

WEED KILLERS

Obama's executive order about invasive weeds came out in December 2016 (obamawhitehouse.archives.gov/the-press-office/2016/12/05/executive-order-safeguarding-nation-impacts-invasive-species), and since then almost every state and county is spraying every state road and highway for weeds with Roundup and numerous other pesticides.

Where I was living at the time, in New Mexico, they slowly started spraying a few chemicals, and only in mid-summer. Then they sprayed earlier and earlier every year, and added more and more chemicals to the mix. By the time Covid took off here, in 2020, the New Mexico DOT was spraying as early as February even though it was still freezing and nothing could grow anyway. That year they used up to ten different herbicides in one mixture. In a video, from Covid, they describe the mix of four chemicals they were using at the time, and show how they do it, as everyone on the highway drives by breathing it all in (www.facebook.com/NMDOT/videos/weeds/577894243596339/).

I wonder how many people went for drives into nature when Covid started, to get some fresh air and to feel better, and drove right into the clouds of chemicals left by this kind of spraying? Could exposure to all these chemicals have caused some of what were called "Covid cases" that started in February



Letters



2020? I read the MSDSs for the list of chemicals they were using at the time. At least one of them the NMDOT used illegally off label. The MSDS for the pesticide clearly stated, “Not to be used in residential areas,” and the NMDOT listings said New Mexico was spraying it on residential streets.

They used to list the spray dates and locations on the NMDOT website. I assumed they did that so people could avoid those areas. But in 2021, the state of New Mexico stopped updating the listings. After they stopped updating the listings, I talked to a DOT employee on the phone. They told me that they didn't have anyone in the IT department who could upload a PDF to the website anymore, and the website hasn't changed since then. That doesn't sound believable, does it? The person I talked to said if I wanted to know when, where and what they were spraying, I had to call her on the phone and talk to her personally, and she would tell me the listings over the phone. That sounds way less efficient than uploading the PDFs of the spray dates and places to the website so anyone can read them.

The old listings from 2021 are still up. I guess NM doesn't have anyone who can remove PDFs from the website either. The old listings show the locations and all the different chemicals they were using at the time. They used up to *ten* weed killers in one spot! Those must be some dangerous weeds!

Here's every chemical they were spraying to kill harmless weeds during the week of June 25, 2021, on every state road and highway in New Mexico during the height of Covid: 1) Brush Rhap, 2) Esplanade 200, 3) Weede-

stroy, 4) Garlon, 5) Oust XP, 6) E-2, 7) Tordon, 8) Arsenal, 9) Spec 80, 10) Velpar, 11) Vanquish, 12) Deposition Aid (whatever that is), 13) Roundup Pro, 14) Escort XP, 15) Plateau, 16) Polaris AC, 17) Milestone, 18) Opensight, 19) Vista XRT.

Inhaling a complex, unpredictable and untested mix of twenty different weed killers is exactly what you don't need at the height of a pandemic of respiratory distress. That sure is a lot of different weed killers. How could they need so many? Why would they need to spray ten different ones all at once, for example, on one road (from Unser Blvd. to Tramway Rd.), which cuts through the center of the entire city of Albuquerque? That seems dangerous. Those weeds must be killing people to take them so seriously. They even used Roundup, which Bernalillo County had made illegal to use on county property in 2019 because it was so toxic. Whoops! Guess it's not dangerous if the NMDOT sprays it in Bernalillo County. I wonder whether that's one of the reasons there are so many more addicted and ill homeless people all around Albuquerque now? This of course doesn't include all the weed killer sprayed on many of the properties and most of the businesses in town.

Since the Obama executive order took effect, I met one woman who became unable to drive on any highway in the country in 2017 because of panic attacks—the very first year this executive order took effect. She and everyone in her family thought it was a mental illness of some sort. I'm not sure it was. In fact, I'm sure it wasn't. I've also seen, since then, at least four women become

agitated, aggressive, abusive, confused, panicked and even violent not long after they started driving on a highway. Roundup and many other pesticides are highly estrogenic, so it's like giving people highly variable doses of estrogen treatments. Of course that's going to make some people, especially women, react harshly. I'm guessing these exposures and the new symptoms and odd behavior are not all a big coincidence, but then I'm not a scientist, so I guess I'll have to leave it up to the experts.

Robert Bonadeo
New Mexico

BEST SOURDOUGH

Thank you for the delicious sourdough bread recipe in the *Wise Traditions* journal (Summer 2025, page 5). The bread came out great! Fortunately, I had a sourdough starter on hand to make the bread. I have tried numerous other sourdough recipes with marginal success, but this hit a homerun. I will be preparing this bread often.

I use fresh-milled Kamut flour and bake the bread in a stoneware mini-loaf pan, which makes four loaves, so I can share with others.

As always, the quarterly journals are so full of fantastic information!

Kathleen McIntyre
Avondale, Colorado 

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

Caustic Commentary

Sally Fallon Morell takes on the Diet Dictocrats

WEASLING MEASLES

An article entitled “Measles Treatment Eyed as Cases Rise” appeared in the August 9-10, 2025 issue of the *Wall Street Journal*. In it we learn that Invivyd, a Massachusetts pharmaceutical company, is working to develop a type of drug called monoclonal antibodies for treatment of measles. This is necessary, says correspondent Dominique Mosbergen, because there are more and more people refusing the measles vaccine, but also because some people “don’t respond to the measles vaccine.” (In other words, the measles vaccine doesn’t work all the time.) Monoclonal antibodies are expensive drugs made from mouse proteins that are supposed to build unique resistance to specific diseases. Their success rate has not been dazzling, and they have side effects such as weakness, digestive disorders and rashes. In the last paragraph, the reporter mentions Dr. Ben Edwards, who successfully treated several hundred measles patients during the recent outbreak in West Texas by giving them an inexpensive, widely available thing called cod liver oil. But in the whole paragraph there’s not one mention of cod liver oil! Talk about mendacious reporting!

MEASLES BENEFITS

What we never hear about are the benefits of getting measles and other childhood diseases. A 2015 study from Japan found that there really is a benefit. Over forty thousand men and over sixty thousand women ages forty to seventy-nine years at baseline (1988-1990) completed a lifestyle questionnaire, including their history of measles and mumps, and were followed until 2009. Men and women who contracted measles and had no measles vaccine had an 8 percent reduction in cardiovascular disease; men and women who contracted mumps and had no mumps vaccine had a 48 percent reduction in stroke; those who contracted both and had no measles or mumps vaccine had a 20 percent reduction in cardiovascular disease and a 29 percent reduction in heart attacks (*Atherosclerosis*, August 14, 2015). So let your kids have the measles and let your kids have the mumps—they will thank you for it!

THE “NET ZERO” HOAX

“Net Zero” is the idea that greenhouse gas emissions caused by humans should be exactly balanced by greenhouse sinks

caused by humans; in other words, the implementation of policies that cause no change to the “global warming effects” of greenhouse gases like CO₂ in the earth’s atmosphere. Dr. Richard Lindzen, a world-renowned atmospheric physicist and MIT professor emeritus calls Net Zero a hoax. There will be no climate catastrophe whether Net Zero is achieved or not, he says. The professor warns that the Net Zero hoax “requires devastating public sacrifices for no environmental benefits. If you reach Net Zero by 2050, if you do it worldwide, you avoid about a third of a degree of warming. If it’s just Europe and the Anglosphere, it’s closer to a tenth of a degree. So, you have avoided a tenth of a degree of warming at a cost of probably tens of trillions of dollars. Doesn’t seem like a bargain to me” (www.freedom-research.org, July 9, 2025).

EMF DANGERS

A review published in the 2024 *Journal of Environmental Health and Sustainable Development* found a correlation of “chronic exposure” to cell phones and wireless devices with “increased insulin resistance, oxidative stress and disruptions in hormonal balance, which can exacerbate hyperglycemia [high blood sugar].” The researchers noted that findings of elevated levels of reactive oxygen species (ROS) and alterations in cortisol and glucagon levels might be contributors to these adverse effects (namely diabetes). Along the same lines, a study published in the journal *Cureus* (July 10, 2025), looked at neurodevelopment in infants exposed to different levels of electromagnetic fields: Low (homes without Wi-Fi, few wireless devices and minimal cell tower signal nearby); Medium (homes with a Wi-Fi router, occasional Bluetooth use and moderate cell tower presence); and High (homes with multiple wireless devices and close proximity to a cell tower). Infants in high-exposure houses compared to infants in low-exposure houses had three times greater fine motor skills impairment, problem-solving difficulties and social developmental delays.

VACCINES AND ALUMINUM

It is becoming clear that one of the greatest dangers of vaccines is their aluminum content. Aluminum (with a plus-three positive charge) is a flocculant—it causes solids suspended in a liquid to come out of suspension and flake up.

Caustic Commentary

Negatively charged red blood cells can clump up on exposure to positively charged aluminum, leading to mini-strokes. Vaccine promoters are in something of a panic to defend the presence of aluminum in vaccines, and they got their wish in a Danish study of over one million children, published in the *Annals of Internal Medicine* (July 17, 2025), which claims to find no link between the aluminum in vaccines and autism. But researchers at Children’s Health Defense (CHD) looked at corrected data added after the study’s original publication and found a clear correlation. They found that almost ten of every ten thousand children vaccinated with a higher dose of aluminum (compared to a moderate dose) developed a neurodevelopmental disorder—mostly autism—between the ages of two and five. According to Brian Hooker, PhD, CHD’s chief scientific officer, the Danish study authors “completely obfuscated what they really found—a statistically significant relationship between aluminum exposure and autism” (childrenshealthdefense.org, July 24, 2025). Actually, at least five studies link aluminum vaccine adjuvants to autism, as well as to asthma and sudden infant death syndrome (SIDS) (publichealthpolicyjournal.com), and nine studies of vaccinated versus unvaccinated children, all published in peer-reviewed journals, show that the vaccinated are worse off in every measure (kirschsubstack.com, August 7, 2025).

BITTERSWEET

Lots of folks use the artificial sweetener Splenda (sucralose) in an effort to cut back on sugar and lose weight. The problem is, the stuff is toxic. It’s in the same class as highly toxic pesticides like dioxins and DDT. Studies have shown a correlation of Splenda use with neurotoxicity, liver toxicity and kidney stones. Now comes a study that explains why Splenda users actually have a hard time losing weight. Published in the *European Journal of Nutrition* (March, 2016), researchers found that Splenda depresses thyroid function, which lowers metabolism and has the effect of causing weight gain, not weight loss. The researchers studied three groups of rats, one on a diet of no sugar, one on a diet containing 10 percent sucrose and the third on a diet containing .0167 grams of sucralose per day. The sucralose rats had diminished thyroid activity compared to the other two groups. The sucralose rats also ate more and gained more weight compared to those on sugar or no sweetener at all.

GLYPHOSATE TOXICITY

While Bayer lobbyists try to get legal immunity from any harms caused by the herbicide Roundup, a new study has found that its active ingredient glyphosate is linked with leukemia and fatal, often rare cancers in the skin, pancreas, liver, thyroid, bone, adrenals, uterus and the central and peripheral nervous systems. Published in the journal *Environmental Health* (June, 2025), the research involved over one thousand rats and found statistically significant dose-related increased trends or increased incidences of benign and malignant tumors in all these locations, many appearing in early life. Forty percent of the leukemias in treated animals occurred before one year of age, while the control animals had zero cases of leukemia. Moreover, a recent report found glyphosate contamination in 90 percent of fourteen cereals tested, including many labeled “organic,” cereals typically consumed by children (momsacrossamerica.org, July 7, 2025). (Breakfast cereals with the highest levels are owned by Kellogg’s and General Mills.) Put these two facts together and we have one explanation for the great increase in childhood cancers that we are seeing today.

VITAMIN D SUPPLEMENTS? NO BENEFIT!

An estimated one-third or more of U.S. adults sixty years or older take vitamin D supplements on the promise of forestalling cancer, cardiovascular disease and bone loss. The massive Vitamin D and Omega-3 Trial (VITAL), involving seventeen thousand participants, looked at outcomes of those taking two thousand international units per day compared to a placebo. The long-awaited findings: no benefit at all! Results of analyses from VITAL published in peer-reviewed journals have shown that “vitamin D supplementation did not prevent cancer or cardiovascular disease, prevent falls, improve cognitive function, reduce atrial fibrillation, change body composition, reduce migraine frequency, improve stroke outcomes, decrease age-related macular degeneration or reduce knee pain.” Another recent trial showed that bone mineral density did not differ significantly between participants who received vitamin D and those who received a placebo. The Weston A. Price Foundation has long warned against taking vitamin D supplements on their own—vitamin D needs co-factors to work, and taking large amounts of vitamin D can deplete these co-factors—notably vitamin A and vitamin

Caustic Commentary

K₂, both of which are needed for protection against cancer, cardiovascular disease, bone loss and many other ailments. The study notes that taking vitamin D supplements did not raise vitamin D blood levels, even when very low at less than 20 ng per milliliter and concluded that “there is no justification for measuring . . . vitamin D in the general population or treating to a target serum level.” The researchers didn’t mince words: “[P]eople should stop taking vitamin D supplements to prevent major diseases or extend life” (*New England Journal of Medicine*, July 27, 2022).

CHLORINE DIOXIDE FOR THE BIRDS

Modern chicken and egg production crowds chickens together in cages so that they are constantly breathing fecal particulate material. When they get sick, the authorities blame the illness on an infectious virus that requires euthanizing the whole flock; or, they propose to solve the problem with an expensive “novel mRNA vaccine.” But researchers in Pakistan have come up with a better solution: put chlorine dioxide in their water. They found that adding chlorine dioxide, a dissolved gas, to the water at .5 parts per million resulted in higher gizzard and liver weights, a proxy for improved immune systems. The report concluded “. . . from present findings, [the] addition of chlorine dioxide. . . can serve as an effective tool to improve broiler performance by reducing the load of harmful pathogens and improving gut health of birds.” Of course, our explanation would be that the chlorine dioxide helps the birds deal with fecal material in the air, but however you explain the results, it’s clear that chlorine dioxide offers an effective and inexpensive solution to chicken deaths in the confinement model (naturalnews.com, March 15, 2023).

SCIENCE VALIDATES TRADITION

We love it when we find scientific studies that validate traditional food practices, and a 1994 paper in *Food Research International* did just that. Noting that cereals, legumes and tubers can contain significant amounts of antinutritional or toxic components such as phytates, tannins, cyanogenic glycosides, oxalates, saponins, lectins and enzyme inhibitors that “reduce the nutritional value of foods by interfering with the mineral bioavailability and digestibility of proteins and carbohydrates,” the authors showed that fermentation of plant foods by yeasts, molds and bacteria can reduce

antinutritional components like phytic acid by up to 50 percent and lectins in legumes by up to 95 percent. What wonderful validation of the traditional practices of soaking and fermenting grains and legumes throughout the world.

POURABLE TALLOW

Now that the public is showing an interest in fries cooked in stable tallow (beef fat), the industry has come up with a trick—pourable tallow. Tallow is 50-55 percent saturated, but the pourable tallow is only about 36 percent saturated. That means they are taking some of the beneficial saturated fats out, probably the eighteen-carbon stearic acid, which has many uses in pharmaceuticals and cosmetics. If you are buying fries cooked in tallow, be sure to look at the label. It should show “Saturated Fat” at about half the amount of “Total Fat.” If the amount of saturated fat is lower, that probably means they are using pourable tallow.

HOW TO REDUCE THE WORLD'S POPULATION

Climate change alarmists insist that the only way to save the planet from destruction is to reduce the world's population from eight billion souls to half a billion. . . but how to do this without the unbecoming strategy of wholesale executions? They found a way with the Covid vaccinations, which are emerging as strong anti-fertility agents, as indicated by a recent report from the Czech Republic, where they keep meticulous safety data. The researchers found that in 2022, Covid-vaccinated women were 43 percent less likely to give birth than unvaccinated women; in 2023, it was even worse, with vaccinated women 66 percent less likely to have a baby—population control without a drop of blood spilled! And just as in the U.S., the media are silent about this alarming development (kirschsubstack.com, February 1, 2025). ☹️

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 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.

Demystifying Heart Attacks: Their True Cause, How to Prevent Them and How Western Medicine Has Misled Us

By Stephen Hussey, MS, DC

On January 5, 2021, I found myself in the back of an ambulance and in the worst pain I have ever experienced. I was having a heart attack at the young age of thirty-four. I would later find out that it was a “widowmaker” heart attack, in which there is a 100 percent blockage of the left anterior descending (LAD) artery. Only 12 percent of people who have a widowmaker outside of a hospital setting survive.¹ Fortunately, this is one situation where Western medicine is useful, and I made it to the hospital in time for them to save my life.

The research I have done to understand what happened that day has made me question everything medicine ever told me about heart disease and the cause of heart attacks. It has also made me wonder what particular part of what they did that day in the hospital was actually lifesaving. Further, it is clear that the medications and procedures that Western medicine uses to prevent heart attacks are not working and are one of the reasons why heart disease remains the number-one killer in the world. I detail my frustrating experience in the hospital, as well as many of my thoughts on heart disease, in my book, *Understanding the Heart*.

Researchers who analyzed the composition of plaque in arteries found that it was about 87 percent fibrotic clotting tissue.

CHOLESTEROL: A BROKEN RECORD

While recovering in the hospital, I questioned the doctors about what they thought had caused my heart attack. The answer was the same whether I asked an attendant, resident, medical student or nurse—a broken record of “high cholesterol.” The image of the angiogram done in the hospital that day showed the blockage and what seemed to be less blood flowing into the branches of the artery downstream of the blockage (Figure 1).

At the time of the heart attack, my cholesterol was “high” and had been so for the three years prior. I was very aware of this. I am a type 1 diabetic, and eating a lower carbohydrate diet makes it very easy to control my blood sugar levels. In people who are metabolically healthy, eating a lower carbohydrate diet has been shown to create elevations in their LDL (the so-called “bad” cholesterol) and total cholesterol, but this “tends to occur in the context of otherwise low cardiometabolic risk.”² Research indicates that long-term higher LDL in these individuals does not result in the development of plaque in the arteries of the heart.³

In fact, research shows that LDL cholesterol is not associated with higher rates of cardiovascular disease (CVD). One review article on the topic concluded, “the idea that high cholesterol levels in the blood are the main cause of CVD is impossible because people with low levels become just as atherosclerotic as people with high levels and their risk of suffering from CVD is the same or higher.”⁴ Further, and more pertinent to my situation, 75 percent of people admitted to the hospital having a heart attack have normal or optimal LDL levels,⁵ and a growing number of heart attack events are happening in people without high cholesterol.⁶

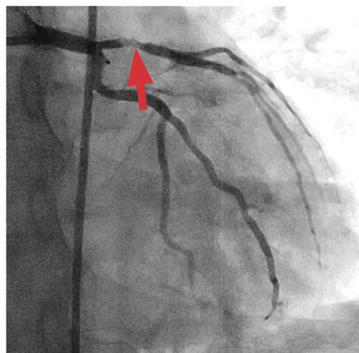


FIGURE 1.
Angiogram image showing blockage (arrow)

In my opinion, LDL-cholesterol and total cholesterol in the blood do not reflect risk for heart disease. Measuring cholesterol in the blood provides insight about only the current metabolism taking place. One group of researchers has described increases in blood lipid levels when relying more on fat for energy (that is, a lower carbohydrate diet)⁷ and decreased LDL-cholesterol when including more glucose and other carbohydrates for a fuel source.⁸ Thus, the focus on lowering LDL to prevent heart disease is not likely to be effective. A study that reviewed twenty-one clinical trials on the efficacy of cholesterol-lowering medications for preventing heart disease and heart attacks found that cholesterol-lowering drugs have very little benefit and that their benefits are largely overstated due to misleading statistical presentation of the data in the studies.⁹

REFRAMING THE QUESTIONS

The conventional theory of what causes heart attacks is that cholesterol builds up in the arteries of the heart in the form of plaque and slowly blocks an artery. However, if total cholesterol and LDL-cholesterol are just a reflection of metabolism and are not the cause of heart disease, and if lowering them doesn't prevent heart disease, what does cause plaque to develop in the arteries? We know that cholesterol is not the driver of plaque formation, but plaque does still occur.

There is plentiful research suggesting that atherosclerotic plaque in the walls of arteries is a result of a clotting response in the blood.¹⁰ One article states, “fibrin [clotting tissue] appears to be a multi-potential component of atherogenesis, intervening at virtually all stages of lesion development.”¹¹ Fibrin is more or less the same clotting tissue response that forms in response to damage to your skin, such as a scab to stop bleeding. Researchers who analyzed the composition of plaque in arteries found that it was about 87 percent fibrotic clotting tissue.¹² In a study of individuals with genetically high cholesterol, some of them developed plaque and some of them didn't; the difference was that those who developed plaque had a genetic predisposition to elevated clotting factors in their blood.¹³

In 1856, Rudolf Virchow showed the world that what causes pathological clotting in blood is damage to the lining of a blood vessel, inadequate or altered blood flow and a situation where the blood becomes too thick or viscous.¹⁴ Medicine today still generally accepts these as the causes of clotting.

Medicine's theory of heart disease says that if enough plaque builds up, it could lead to restricted blood flow and cause chest pain (angina) or block the artery enough to cause a heart attack. In addition, the thinking is that unstable, or soft plaque could rupture and cause an acute blockage. However, there is evidence that even with the presence of plaque, neither one of these situations is likely to cause a heart attack.

There are various tests used to measure the amount of plaque in the arteries of the heart and how narrowed the pathway for blood has become due to that plaque. One such test is a coronary artery calcium (CAC) scan, which measures the amount of calcified plaque in the arteries. Studies show that the higher the CAC score, the greater the risk of a heart attack.¹⁵ The conventional explanation is that this is because more plaque in the arteries increases the chances of someone getting to the point where an artery closes or the plaque ruptures and causes a heart attack. However, the work of Italian researcher Giorgio Baroldi (1925–2007) forces us to question these ideas.

THE BODY KNOWS WHAT TO DO

Dr. Baroldi, a cardiovascular pathologist, spent most of his career investigating the coro-

nary arteries but, as far as I can tell, the field of cardiology has largely ignored his work. He developed a method to cast the arteries of the heart in autopsy with a plastic material so that when he dissolved away the heart tissue, he was left with a perfect representation of the arterial system of the heart, including very small arteries that do not show up on angiogram imaging.

When he studied the casts, what Baroldi found was astonishing. Any time the narrowing of an artery due to plaque got to about 70 percent, the body built collateral arteries around the narrowing that fully compensated the heart tissue with blood.¹⁶ In his book summarizing this work, Baroldi stated, "any severely obstructed coronary artery lesion, even multiple ones, was always found associated with enlarged collaterals."¹⁷ These collateral arteries can form very quickly, within four to seven days.^{18,19} Figure 2 illustrates the formation of these arteries; Figure 3 is an image of the collaterals in one of Baroldi's plastic casts.

When doctors did a heart catheterization procedure on me in the emergency room, they found a 100 percent blockage in the LAD artery. If this blockage had developed slowly enough, according to Baroldi's work, I should have developed collaterals. Because I was indeed having a heart attack, the blockage must have formed very quickly—perhaps even instantaneously—leaving no time for collateral arteries to form.

Conventional medicine says that in a heart attack, a rupture of plaque occurs, which initiates a clotting response large enough to block the artery instantaneously. However, an article

Collateral arteries can form very quickly, within four to seven days.

FIGURE 2. Formation of collateral arteries

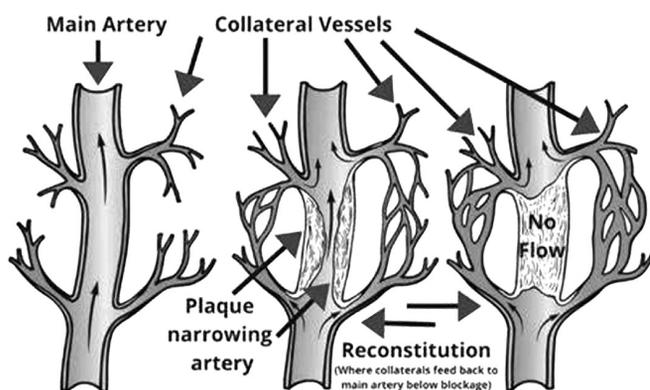
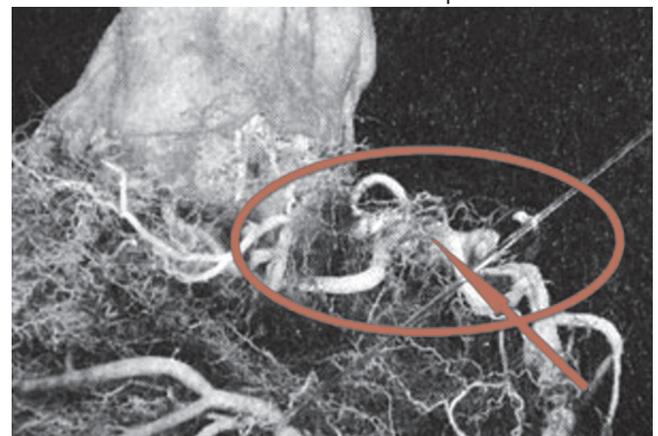


FIGURE 3. Collateral arteries in a Baroldi plastic cast



reviewing evidence on the plaque rupture theory of heart attacks found that while plaques do rupture, the ruptures cause heart attacks much less frequently than generally thought, with an estimated event rate associated with each plaque of “only 0.06 percent per year.”²⁰ Discussing how plaques rupture, the article states that the clotting tissue formed to heal them contributes to further narrowing of the artery with plaque. But Baroldi’s work shows us that if this happens over time, the body will build collaterals to ensure that the heart tissue gets enough blood.

Baroldi’s findings on collaterals and the fact that plaque ruptures are rarely the cause of heart attacks help explain why the procedures that Western medicine uses to try to prevent future heart attacks—like placing preventive stents (to open up a narrowed artery) or conducting bypass surgeries (using a vein to direct blood around a narrowing)—are not achieving their stated aim.^{21,22} If the body is going to build collaterals and maintain blood flow, and if plaque ruptures rarely cause heart attacks, then opening up a narrowed artery with a stent or creating a new route with a bypass is not going to help. These procedures do seem to alleviate symptoms in some people, but in my opinion, they should never be done for the sake of trying to prevent heart attacks in those without symptoms. Some researchers have described the continued use of expensive and profitable procedures that do not prevent future heart attacks as “the elephant in the room” in cardiology.²³

NO-BLOCKAGE HEART ATTACKS

In the paper showing that plaque ruptures rarely cause heart attacks, the authors contend that medicine should shift away from treating narrowing in the arteries and instead focus on

preventing clotting in the arteries. I agree. In my lecture at Wise Traditions 2024, titled “The Biophysics of Heart Disease and Covid Injection Clotting,” I discussed the role of structured water and infrared light in protecting us from atherosclerosis through their prevention of clotting.

It is well known that one of the biggest risk factors for clotting in the bloodstream is stagnant or interrupted blood flow.^{24,25} When thinking about what caused my heart attack, it’s possible that plaque development in the LAD was interrupting blood flow. I was likely dehydrated at the time, as I was dealing with constipation. Dehydration has been shown to negatively affect blood flow by making the blood thicker or sludgy.²⁶ Moreover, about thirty-six hours before the event, I had received stressful family news, and that situation was still unresolved at the time of the heart attack. Stress, too, has been shown to increase clotting risk.²⁷ Combined with some plaque build-up already present, these factors could have created the perfect storm for a clot to form instantaneously without enough time for collateral formation.

Six months prior to my heart attack, a CAC scan had given me a perfect score of zero, meaning that there was no calcified plaque in the arteries of my heart. So, while an acute clot forming due to thicker blood trying to get around already existing plaque build-up could have been the mechanism behind the heart attack, with no calcified plaque present, there could have been another cause as well. Figure 4 again shows my angiogram image from the time of the heart attack, but this time, the arrow is pointing to an area just downstream from the blockage in the artery. It seems to be filled with blood. You can also see that the artery branches downstream from this area seem to have less than adequate blood flow. When a heart attack happens, heart tissue dies, generally thought to be from a lack of blood to that area of the heart. Based on this image, the branches of arteries downstream from where the arrow is pointing don’t have much blood in them, which means the heart tissue they supply isn’t getting enough blood. If this tissue is starving for blood, then why is blood upstream just sitting there? Why is that blood not going down into the heart tissue that is dying due to lack of blood? It’s almost as if the blockage and something happening in the heart tissue are keeping the blood trapped in the artery where the arrow is pointing. How can we explain this?

As it turns out, another type of heart attack, called “myocardial infarction with non-obstructed coronary arteries” (MINOCA), happens without any blockage. Although medicine seems to have no real under-

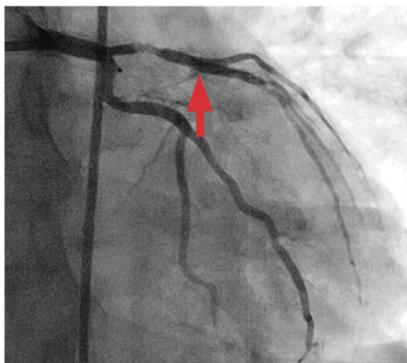


FIGURE 4: Angiogram image showing area downstream from blockage (arrow)

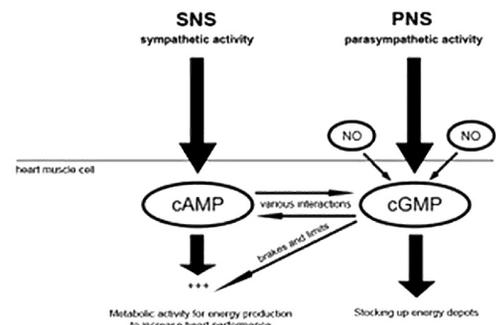


FIGURE 5
Messenger molecule
cAMP and cGMP

standing of the causal mechanism and generally considers this type less common,²⁸ in my research, I have discovered potential mechanisms suggesting that MINOCA may be much more common than acknowledged.

THE ROLE OF STRESS

The cascade of events that leads to MINOCA is largely triggered by a dysfunctional stress response in the autonomic nervous system (ANS). Our evolved stress response is supposed to be activated only when it needs to be (such as when our life is in danger), but the mismatch between how our stress response evolved and our unnaturally stressful modern environment can cause the stress response to become imbalanced. Instead of healthily going back and forth between a stress response and a non-stress state, we can get stuck on constant high alert, altering ANS signaling.²⁹ This could explain why heart attacks are more prevalent on stressful days of the year and on Mondays when people go back to work,³⁰ as well as why heart attacks spike around the time of the daylight savings time change, which is stressful to our nervous system.³¹

The ANS consists of two parts: the “rest and digest” (parasympathetic) side, which is more active in non-stress situations, and the “fight or flight” (sympathetic) side, reserved for those times when a stress response is necessary. Normally, a surge in one includes a lesser surge of the other to maintain balance. The signal for this system is conducted through the vagus nerve. Although a combination of factors has to converge for a heart attack without a blockage to occur, an out-of-balance ANS is a key trigger.

The control of ANS balance in heart tissue relies on two messenger molecules: cAMP and cGMP. cAMP levels rise in the heart cells when we have a stress response, and cGMP levels rise when we are in a relaxation state. When it comes to cGMP (the relax molecule), there is one critical difference: nitric oxide or NO (produced in the cells of the walls of arteries called endothelia)³² is needed to increase its levels. When we experience a stress response and the nervous system causes spikes in cAMP within the heart, then—provided there is enough NO—cGMP also increases to keep the system in balance³³ (see Figure 5).

Think of it like this. If you are walking your dog, and your dog starts to run after your neighbor, holding onto the leash is what prevents a bad outcome such as your dog attacking your neighbor. Your dog’s reaction is like the stress signal of cAMP, and you holding the dog back on the leash is the balancing response of cGMP. If this process works, then all

goes well.

When we have prolonged periods with surges of stress responses that increase levels of cAMP, and there is not enough stimulation of the relax response, then we can lose the ability to move effectively between the two states and can get stuck in a stress state. This is called “decreased vagal tone” because the vagus nerve carries the non-stress signals.

Heart rate variability (HRV) is the best measure of balance in our stress response. The higher a person’s HRV, the more balanced they are. Interestingly, one study showed the complete suppression of HRV preceding 95 percent of ischemic heart attack events (see Figure 6).^{34,35}

When our stress response becomes imbalanced, the fail-safe within the cardiac cells is supposed to be that consistently high levels of cAMP are balanced by also rising levels of cGMP. Again, however, cGMP can do this only if NO is present. If NO gets depleted because our body is in an inflammatory state or the lining of the artery is impaired,³⁶ this can increase the chances of having a stress response without the balance of the non-stress response. In other words, the dog is able to go after the neighbor because you don’t have the dog on a leash.

THE BIG EVENT

When humans experience decreased vagal tone for long periods while also experiencing decreases in NO levels, this can cause a surge in the stress response and subsequent elevation in cAMP in our heart cells without a balanced rise in cGMP (see Figure 7).³⁵ This can set into motion the cascade of events that is a heart attack without a blockage.

The sudden unchecked rise in adrenaline from the stress response causes an increase in

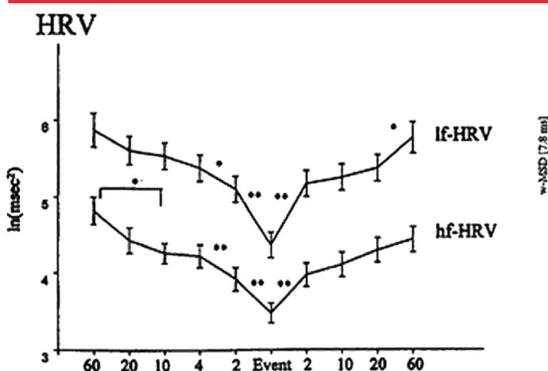
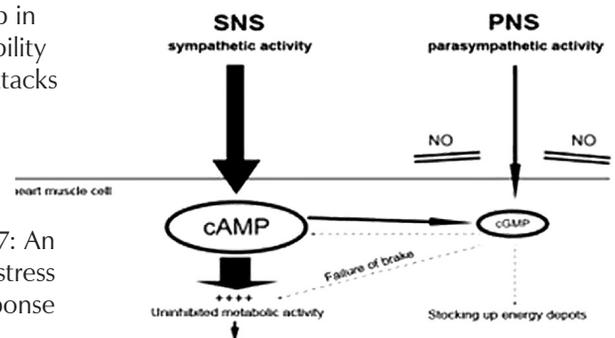


FIGURE 6: Drop in heart rate variability prior to heart attacks

FIGURE 7: An imbalanced stress response



lactic acid production within cardiac cells.³⁷ This happens because the stress response situation persuades the heart, which usually prefers to burn fatty acids and ketones,³⁷ that it needs to burn energy more quickly. It is quicker to burn glucose than to burn the more efficient and preferred energy source of fats and ketones.³⁸ Burning glucose causes a build-up of lactic acid and hydrogen ions within the heart cells, creating a state of acidity. Studies show that the production of lactic acid is increased by a factor of eight in this situation, with no change in oxygen levels.³⁵ This is similar to doing a sprint or a hard, fast workout; lactic acid builds up in the muscles, causing the muscles to have that burning feeling, but oxygen levels are not affected.

In the legs or arms, if we stop moving the muscles, the lactic acid will move along, discontinuing the build-up and the burning. However, the heart can't just stop contracting, so the rapid build-up of lactic acid in the heart tissue causes a major problem, preventing calcium from being able to bind to muscle fibers to create contraction of the heart muscles.³⁹ Low calcium in heart cells results in slower conduction velocity and elevated arrhythmia risk.⁴⁰ This eventually leads to decreased muscle tension and contractility, which then causes a stretching of the wall of the heart that leads to increased pressure.⁴¹ The increased pressure in the tissue prevents blood supply from getting to the tissue.⁴² This results in very quick tissue death before any drop in oxygen is seen in heart tissue—in other words, a heart attack.

Once again considering my angiogram image (Figure 8), it's plausible that these events could have taken place. The complete blockage (A in Figure 8) could have been there well before the heart attack, but collaterals (which are too small to visualize on angiogram imaging) could have formed around it, supplying blood to the area after the blockage (B in Figure 8) and preventing me from having any symptoms of poor blood flow. The stress I was under, which created two poor nights of sleep, imbalanced my nervous system response. In that state, when I did a high-intensity interval training workout on the morning of the heart attack, it could have been the proverbial straw that broke the camel's back, creating a stress response that caused the swelling of the heart tissue supplied by the arteries (C in Figure 8). This prevented blood from entering the heart tissue and caused the blood to pool up at B.

Was this what caused my heart attack? I don't know. When they placed a stent to open up the blockage, my heart attack symptoms imme-

diately went away, which could make one think that the blockage was the cause. However, they also administered morphine, which would have made the pain better and could have calmed the nervous system response and allowed for rebalanced signaling to the heart tissue, stopping the process of heart tissue death.

I will likely never know which of these two situations caused my heart attack, and I don't feel that I need to. F. Scott Fitzgerald once said, "the test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time and still retain the ability to function." I do not have to know which situation caused my heart attack to put myself in the best environment to prevent it from happening again.

MAINTAINING HEART HEALTH

The strategies I use to create the best chance for heart health are helpful in preventing heart attacks in both scenarios—the acute clotting scenario and the imbalanced stress response scenario. To decrease risk of acute clotting, we should do things that help keep blood moving and keep it from getting too thick or viscous. To decrease risk of an imbalanced stress response, we should do things that improve HRV. There are strategies that do both of these things.

In my opinion, the strategies that have the most impact on the causes of heart attacks are not diet-related. Among all the things I recommend, the most important are to focus on sunlight and grounding. For life on Earth to sustain itself, it needs to harvest energy from its environment and use it to create the order that we call "health." The source of all the energy for life on Earth is the sun. Thus, it makes sense that sunlight exposure would be good for us. The sun emits 40 to 50 percent infrared light any time that it is up, and infrared light is most effective at structuring water in the body. Structured water in blood vessels is a primary driver of blood flow.⁴³ Getting sunlight has been shown to increase blood flow in the body.⁴⁴ Further, getting sunlight exposure and setting your body to the day/night cycle of the sun (by being cognizant of artificial light exposure when the sun is not up) have been shown to improve HRV.⁴⁵

Infrared saunas and red/infrared light panels are other ways to boost infrared light expo-

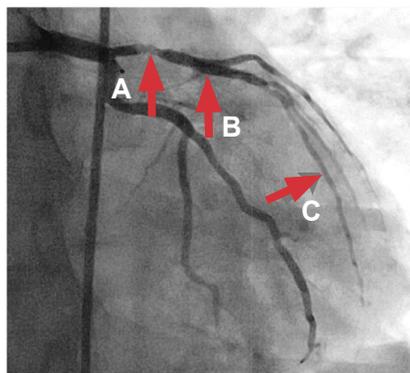


FIGURE 8:
Angiogram reconsidered

sure if you are unable to get enough sunlight. Red-light therapy and infrared sauna are both effective at increasing blood flow.^{46,47} Sauna use also increases HRV.⁴⁸

Grounding is another way to gain energy from the sun. The sun continuously transfers electrons into the ionosphere (the upper atmosphere of Earth that holds ions). During times of excitement (storms), lightning discharges ions and keeps the earth full of negatively charged energy. Physics teaches us that when two conductive entities touch each other, if there is a difference in charge between the two, electrons will flow from the entity with the higher concentration of energy into the entity with the lower concentration.⁴⁹ Living creatures are conductive surfaces, and the earth is a conductive surface. When we put bare skin on the ground, we soak up electrons through the hydrated fascia network in our body, and these are transported to be used in the mitochondria of any cells that need it.⁵⁰

Direct contact with the earth is the best way to ground, but there are also devices that connect to the grounding wire of an indoor outlet. These are often used in research studies. A study that had subjects do six weeks of grounding found that HRV was much higher on average in the grounding group versus the control group.⁵¹ Another study investigated the effects of grounding on vagal tone (HRV) and survival in infants born preterm. Vagal tone increased 67 percent and improved the infants' resilience to stress (and, therefore, their ability to survive).⁵² Lastly, a study tested the effect of grounding on HRV by grounding subjects for forty minutes, designing the study so that participants did not know who was being grounded and who was in the control group. The grounded group experienced an increase in HRV that continued to improve throughout the forty minutes of the experiment.⁵³ These studies clearly illustrate how connecting to Earth's electrical field can improve HRV and increase coherence.

Grounding increases blood flow,⁵⁴ conducting energy not just local to the surface of the body but throughout the body.⁵⁵ Grounding also increases the structured water found on the elements of blood, called zeta potential.⁵⁶ Maintaining a strong electrostatic attraction between

the fluids in the body and the elements in that fluid—by maintaining the zeta potential of the blood elements—increases blood flow and keeps blood from clumping together and clotting.

Sunlight and grounding are important because they are done outside. I think it is no accident that the rise of heart disease and heart attacks seen since the 1950s correlates with the invention of brighter indoor lighting, which has led to a life lived to an ever greater extent indoors. The average person today spends about 93 percent of his time either inside or in an enclosed vehicle.⁵⁷ Our bodies are starving for the energy that we get from being in the sun with our feet on the earth.

Discussion about the prevention of heart disease and heart attacks tends to be dominated by the topic of diet. This is mostly due to the unfounded linking of heart disease with cholesterol and the fact that cholesterol is found in food. In my view, the only way that diet can contribute to heart disease is if someone is eating a processed-food diet full of toxins. The most important thing to do is to center the diet around naturally raised animal foods and whole plant foods in season.

Of course, many things will improve our health and prevent disease. In addition to eating whole foods in season, factors include staying hydrated, avoiding toxin exposure, resolving past traumas, exercising, expressing gratitude and avoiding non-native electromagnetic signals. I feel that the most important thing to do is spend more time outside. This is the way it was for humans before our modern way of life. After my heart attack, my diet and “high” LDL levels stayed the same and I continued to go through a personally stressful time for eighteen months. However, taking no medications other than a blood thinner for six months, my heart function and tissue completely recovered during the two years after my heart attack, and I reversed a 70 to 99 percent narrowing of plaque in an artery in my leg. Imaging showed that the arteries of my heart remained almost completely free of plaque. The only behaviors I changed and practiced consistently during this time of healing were getting sunlight, grounding, using my infrared sauna and being very conscious of artificial light exposure before sunrise and af-

Our bodies are starving for the energy that we get from being in the sun with our feet on the earth.

ter sunset to sync my body up to the day-night cycle of the sun and stimulate healing. This is the power of reconnecting with nature. ☯

Dr. Stephen Hussey MS, DC is a chiropractor and functional medicine practitioner. His story of personally healing heart disease using light and environmental health strategies has become an inspiration to many and a calling for change in healthcare. In addition to chiropractic clinical practice, Dr. Hussey is a health consultant, speaker and the author of three books on health: The Health Evolution, Understanding the Heart, and Pain Sense. Dr. Hussey guides clients from around the world back to health by using the latest research and health-attaining strategies.

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A New Look at Circulation: The Helical Heart and the Microvascular Flow

By Manel Ballester-Rodés, MD

As for many others, my interest in the topic of the helical heart started with a man named Francisco “Paco” Torrent-Guasp (1931–2005), a brilliant Spanish cardiologist whom I met forty years ago at a conference. When I met him, I told myself, “This man is either mad or a genius.”

In a posthumous tribute, British cardiac surgeon Donald N. Ross noted how Torrent-Guasp fundamentally challenged accepted dogma.¹ In the early 1970s, when Torrent-Guasp first started making his unconventional ideas known, the heart “was perceived to be a simple, thick muscular organ.” In his communications with Ross at that time, Torrent-Guasp lamented that “none of his associates took him seriously, nor attempted to study his meticulous dissections aimed at establishing the intricate structure of the heart muscle.” Even after forty years of careful study, no one initially believed Torrent-Guasp when he announced, “The heart is not a pump—it’s a double helix.”

Later, as Ross describes, conventional cardiology belatedly attempted “to keep up with [Torrent-Guasp’s] anatomical revelations,” but by then, the out-of-the-box Spanish cardiologist had “turned his thoughts to not only the structural details but also to the increasingly intriguing action of the heart,” which conventional circles largely viewed as an “unsolved enigma.” In the remainder of this article, I will describe how Torrent-Guasp and pioneers in the field of energy medicine helped to reshape our thinking about the heart’s structure and function.

AN ANATOMICAL MODEL WITH A TWIST

According to the classical understanding of heart anatomy (Figure 1), the heart has two atria, two ventricles, the septum (a wall of tissue separating the left and right atria and ventricles), the aorta coming from the left ventricle and the pulmonary valve that lies between the right ventricle and the pulmonary artery. Seemingly, it’s all very clear. (After all, it’s in the textbooks!)

Following a heart transplant, clinicians and researchers sometimes dissect or otherwise analyze the explanted (native) heart to study its anatomy and pathology.² When I met Torrent-Guasp, I was the medical chief of the Heart Failure and Transplant Unit at Hospital Santa Creu in Barcelona. He told me, to my astonishment, that if you boil a heart for thirty minutes to soften its collagen structure, you can easily separate the atria from the ventricles with your bare hands—no scissors or scalpel needed. I was so impressed by this statement that I told my surgeon, “We must get him here when we do our next heart transplant so that we can watch him unroll an explanted heart before our very eyes.”

When we had a scheduled transplant, I called Paco (who lived six hundred kilometers away in the southern province of Alicante) and asked him to come demonstrate in person. He drove fantastically fast to Barcelona and was in a pathology room at seven the next morning dissecting a boiled heart. He made a film for us demonstrating how to sequentially unfold the ventricular myocardial band with one’s hands. (The only time you need scissors is to cut the left trigone—thick connective tissue—to release the aorta.) When you get to the point of releasing the left ventricular cavity, that is when the “magic” happens because then the heart can be unrolled. In simple terms, you can “unravel” the heart into a “continuous myocardial band that extends from the pulmonary artery to the aorta,”³ with a one-hundred-eighty-degree twist in the middle section (Figure 2).⁴

When Paco was in Barcelona, we repeated the process with bovine hearts and painted the various segments so as to see exactly where the segments were going: from the right ventricle to the left ventricle, then spiraling down the descending segment and then up the ascending segment. Then we re-rolled them and sectioned them in longitudinal and transversal cuts, as though we were doing echocardiography. When we looked at the superposed layers, we could clearly see that the heart is not homogeneous.

Paco had critics who claimed that his manual dissection produced a continuous band merely because of where he placed his fingers, but that is not true. The fibers of the heart are surrounded by structured water, and a type of magnetic resonance called diffusion tensor imaging (DTI) can take advantage of that fact

“The heart is not a pump—it’s a double helix.”

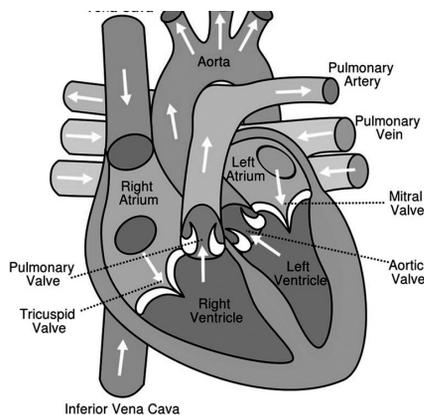


FIGURE 1 (left):
Conventional diagram
of the human heart

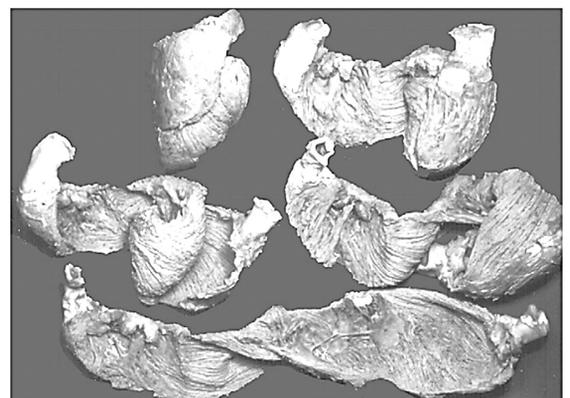


FIGURE 2 (right):
Unrolling the
myocardial band

The real movement of the heart is “twist” and “untwist.”

to study the pathway of the fibers of the heart. I have co-authored papers with a computer scientist named Ferran Poveda from the Autonomous University of Barcelona, who devised a way of summarizing the pathways of all the fibers. In our conclusion to a paper published in 2013, we stated that DTI objectively reveals “a continuous helical myocardial fiber arrangement of both right and left ventricles, supporting the anatomical model of the helical ventricular myocardial band [HVMB] described by F. Torrent-Guasp.”⁵

THIS CHANGES EVERYTHING

In a 2006 article, Paco and I wrote, “The fundamental question should be ‘what do we really know about normal and diseased heart structure and function?’ rather than becoming boxed-in by prior conceptions.”⁶ The fact is that Torrent-Guasp’s HVMB model changed everything and introduced important implications for cardiology. Discussing the first critical implication, we argued in a 2011 paper that the understanding of the heart “as a single myocardial band adopting spatially a double-helical structure” requires a reconsideration of how the ventricles exert their function.⁷

In simple terms, the HVMB model tells us that there is no such thing as “squeeze” or “unsqueeze” the heart, as the conventional understanding would have it—instead, the real movement of the heart is “twist” and “untwist.” In systole, the base comes down, but the apex remains. This is due to the “motor” of the heart, which is the descending segment that contracts in systole. When it contracts in systole, the ascending segment becomes horizontal. In diastole, contraction pulls the base of the heart up for the diastolic movement. Stated another way (and contrary to standard explanations), diastole is mostly active, not passive—it’s a contraction, but in the context of a double-helix heart. It may seem counterintuitive to say that a contraction can expand the heart, but it does. This is why one must understand the helical mechanism.

A second implication has to do with reinterpretation of the electrocardiogram (ECG). The classical interpretation (found in all cardiology and ECG textbooks) defines the ECG’s three waves as follows:

1. The P wave is considered to be a marker of atrial activation.
2. The QRS is interpreted as ventricular “activation” or “depolarization.”
3. The T wave is described as the electrical recovery phase or “repolarization.”

The QRS wave—which shows up on the ECG monitor as the peak—is said to represent a quick electrical impulse that “follows a radial distribution from endocardium to epicardium.”⁸ This interpretation arose because in 1956, someone stuck an electrode inside the heart and another one outside the heart, and the first one to show activation was the endocardium, followed by the epicardium. However, the conclusions reached in the 1950s about the movement of electricity from endo- to epicardium relied on the methodology and technology available at the time³ and also predated Torrent-Guasp’s groundbreaking reconceptualization of ventricular architecture. Through the lens of the HVMB model, it becomes apparent that the electrical pathways cannot pass in this way from endocardium to epicardium. The sequence of electromechanical activation—which is base-to-apex, not apex-to-base⁹ as described by conventional cardiology—is what counts.

In a study published in 2008 by researchers at the Laboratory of Cardiac Energetics at the National Institutes of Health (NIH),¹⁰ the authors include a figure (their Figure 4) showing that when the QRS wave has ended, the myocardium has not even started to contract. If there is no movement in the myocardium yet, it is erroneous to interpret the QRS as the “ventricular activation.” This in turn requires that we rethink the T wave. In a 2016 paper, we wrote, “We believe that the T wave might reflect the electromagnetic field associated with the mechanical activity of the working myocardium and the blood motion.”⁸ In short, the T wave is the electromagnetic counterpart of mechanical activity, not “repolarization.” This is very important because it puts the T wave in the center of ECG evaluation.

HELICAL HEART AS FIELD ANTENNA

A principle of quantum physics is that the heart is both a particle (matter) and a wave or

field. In fact, the heart is the body's most powerful field of magnetic induction.

James Oschman, who wrote *Energy Medicine: The Scientific Basis*, knew of Torrent-Guasp long before I did. Torrent-Guasp gave him a model of the heart, and Oschman immediately understood that the heart is an antenna. Oschman describes this in his 2015 paper, "The Heart as a Bi-directional Scalar Field Antenna."¹¹ Why an antenna? Because the double helix is a non-orientable geometric surface that is essentially a Möbius strip.

The one-hundred-eighty-degree twist described previously is the key to understanding that the ventricular architecture is a Möbius strip. The Möbius strip, in turn, is one of the configurations used to document something called the Aharonov-Bohm effect,¹² which relates non-local quantum space with magnetic fields. As Oschman puts it, "the heart's energy fields. . . are coupled to fields of information that are not bound by the limits of time and space."¹¹

What information does the cardiac antenna convey? This is still an open question, but there are several possibilities. The first possibility is simply emotions. In a 1995 paper,¹³ Rollin Mc-

Craty (executive vice president and research director at the HeartMath Institute) reported on the effects of emotions on heart rate variability (HRV), finding that positive emotions led to beneficial alterations in HRV.

A second role of the cardiac antenna could be the sense of well-being. In 2021, a conference paper I coauthored with Barcelona engineer Joaquim Comas and others discussed the positive short-term impact of polarity therapy on physiological signals in patients with chronic anxiety.¹⁴

Intuition is a third possible role for the antenna. In another paper by McCraty and coauthors published in 2004,¹⁵ they discussed "the surprising role of the heart" in intuitive perception. The authors wrote, "It appears that the heart is involved in the processing and decoding of intuitive information" and is "processed in the same way as conventional sensory input."

Finally, McCraty has written about the heart's role in synchronizing body fields.¹⁶ In Figure 3 (next page), which shows heart rate, respiration and blood pressure, you can see that the left looks a bit chaotic, whereas the right side is almost identical in all three aspects. In the span of five minutes, visualizing a loving situation leads to synchronization of every field of the body via the heart! The heart rate, respiration and blood pressure become coherent and synchronized. A coherent state is marked by the feeling, "wow, it's all one." Everything synchronizes, like an orchestra with an excellent conductor.

Can an orchestra do without a conductor? Yes, but this perfection—this state of coherence—can only be attained with a good conductor in charge.



QUESTIONING THE PUMP

According to the esoteric philosopher Rudolf Steiner (1861–1925), the heart cannot be understood as a hydraulic pump. Ralph Marinelli and coauthors summarized Steiner's observations and presented experimen-

FRANCISCO TORRENT-GUASP

When Spanish cardiologist Francisco "Paco" Torrent-Guasp passed away in 2005, fellow cardiologist Juan Cosín Aguilar, one-time president of the Spanish Society of Cardiology, wrote a tribute to his mentor and close friend in the *Revista Española de Cardiología* (*Spanish Journal of Cardiology*).³² Aguilar commented, "It was [British cardiology expert] Jane Somerville who, in 1970, in London had likened Paco to Leonardo da Vinci in the quality of his paintings (what Somerville did not know was that Paco was indeed a painter; he even once exhibited in Paris) and also in that he was a product that could easily be exemplary of the time and places of the Renaissance. Paco was cultured, wise, extremely curious, imaginative, spontaneous, unconventional, nonconformist, enthusiastic, committed, and well-endowed with common sense. . . . Dr. Torrent-Guasp was a free-minded individual, master of his own time and his own arguments. To know him you had to listen with a mind free from fears and totally without prejudice."

According to Aguilar, Torrent-Guasp became interested in the heart's functioning while still a medical student in the mid-1950s and "thought it strange that. . . an impossible mechanism should be considered viable." That impulse of disbelief in conventional explanations led him to conduct microscope studies and then to dissect hearts "from all kinds of animals," with much of his research self-financed. Aguilar went on to explain:

"In 1973, for the first time in history, [Torrent-Guasp] described the structure of the heart as a band of muscle that starts at the pulmonary artery entry-point and ends below the aorta exit, wrapping itself into a double helical coil that bounds both ventricular cavities with a wall to separate them. Taking this architecture as his basis, in 1997 he presented a theory that provided an explanation as to how progressive contraction of the band accounted for the ejection and suction of the blood. By then, it was 43 years later. . . . Dr. Torrent-Guasp's cardiac structure is now [in 2005] the anatomy of the heart."

The plausible hypothesis is that the heart is magnetic, not mechanical.

tal corroboration in an ingenious 1995 paper titled, “The Heart Is Not a Pump: A Refutation of the Pressure Propulsion Premise of Heart Function.”¹⁷

If the heart is not a pump, we have to ask, what is the force behind the blood’s movement? Austrian-born osteopath, chiropractor and naturopath Randolph Stone (1890–1981), who mentored my polarity teacher Dr. Jim Feil, studied many different health systems, including India’s Ayurvedic system, writing marvelous (though challenging to understand) books about energy therapy and “the conscious art of living well.” He pioneered polarity therapy, a biofield energy therapy that combines Eastern and Western techniques—both hands-on and touchless—to improve the flow and balance of energy within body and mind.¹⁸ Stone said that the circulation has more to do with energy circuits and waves than with mechanical forces of the heart as a pump. In his view, if the blood is not circulating freely, it is really the energy circuit that is at fault, and if you remove blocks in the field, you can restore normal circulation. He wrote, “The outward and inward currents must move in all fields if there is to be health and happiness.” He continued, “The heart center is the pivot for the circulation of these energies through the blood. . . and becomes the control center for these energies.”¹⁹

Another observation about the flawed pump theory has to do with something called the Bourdon Effect. The Bourdon Effect is associated with the pressure elongation of piping and pipeline systems, that is, the “tendency of pipe bends to open up under internal pressure force.”²⁰ You can use a mechanical gauge called a Bourdon tube (a curved, hollow tube that straightens when pressure is applied) to measure pressure.²¹ Dr. Tom Cowan describes

this very well in *Human Heart, Cosmic Heart*, using the example of a coiled hose; if you turn on the water, the hose straightens. Interestingly, in a 1951 paper in the journal *Circulation*, when researchers studied the changes in configuration of the ventricles during the cardiac cycle, they observed, “[I]t is worth noting that, *contrary to the principle of the [Bourdon] tube*, the aortic arch assumed a greater curvature during periods when its luminal pressure was increased” [emphasis added].²² What the authors were pointing out was that during cardiac ejection (systole), contrary to what the Bourdon Effect would lead us to expect, the aortic arch does not open, it *closes*. That fact is impossible to explain if you assume that the heart is a pump.

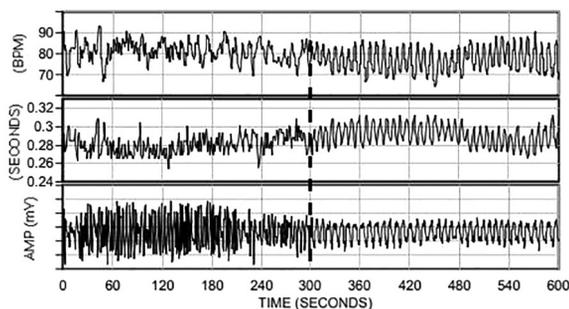
Again, if the heart is not a pump, we have to ask, what is the mechanism? It turns out that the mechanism has to do with negative pressures in the aortic arch and vortex dynamics—like a tornado. Papers looking at the aortic arch have identified vortical mechanisms, showing that correlated with an increased aortic arch diameter is “the presence and strength of supra-physiologic-helix and vortex formation” in the aortic arch.²³

You can use Doppler cardiac imaging of the red blood cells to measure blood flow. Italian researchers wrote in 2014 that evaluation of blood flow “presents a new paradigm in cardiac function analysis.”²⁴ Discussing cardiac “vorticity,” they explained:

“Vortices have a crucial role in fluid dynamics. The stability of cardiac vorticity is vital to the dynamic balance between rotating blood and myocardial tissue and to the development of cardiac dysfunction. Moreover, vortex dynamics immediately reflect physiological changes to the surrounding system, and can provide early indications of long-term outcome.”

What drives this dance of the blood? Recognizing that the heart is the highest magnetic induction organ of the body, the plausible hypothesis is that the heart is magnetic, not mechanical. The idea is that the cardiac field “sucks” the blood along the large pulsatile vessels in the form of vortices.

FIGURE 3: The transition to a coherent state



ENTER THE BIOFIELD

The concept of the magnetic heart gives rise to another question: Could expansion of the energetic biofield increase circulation? I have already mentioned a study we did that validated energy therapy in twenty-five patients with chronic anxiety but a normal heart.¹⁴ Polarity therapy (the intervention) essentially expands the biofield. After a single thirty-minute session, we observed immediate reductions in blood pressure as well as reduced heart rate, reduced body temperature, a reduction in sympathetic activity and an increase in parasympathetic activity. I have stopped giving drugs to my hypertensive patients because all they need are two or three sessions of polarity therapy; the body learns how to not react. When you expand the biofield, the autonomic sympathetic activity goes to sleep. In our study, we also observed increased cardiac coherence and a greater sense of well-being, with the latter reported subjectively but also measured objectively by television monitors that could detect micro-changes in facial expression.

In terms of cardiology, our polarity therapy results showed an increased cardiac pulse and increased efficiency of the ventricular function. Let's look more closely at those. First, when we calculated the area under the curve (AUC) for the cardiac pulse before and after treatment, we found a statistically significant difference. Merely expanding the biofield increased the cardiac pulse.¹⁴ Even in patients who had a normal heart rate at baseline—in other words, a normal ECG—biofield therapy improved circulation.

To assess ventricular efficiency after biofield therapy, we looked at the T wave AUC as a marker of electromagnetic ventricular activity. Before treatment, the T wave AUC was large, and after treatment, the area was smaller. Why? Because the heart works more efficiently when the biofield expands.¹⁴

A LOOK AT THE ARTERIOLES

What about the tiny arterioles and capillaries, which are another critical aspect of the circulation? To understand what is happening there, it is important to know that in the arteri-

Even in patients who had a normal heart rate at baseline, biofield therapy improved circulation.

GIANTS IN THE STUDY OF THE HEART AND ENERGY MEDICINE

In addition to Francisco Torrent-Guasp, there are a number of other intellectual giants—past and present—who have contributed to our knowledge of the heart and energy medicine. Those who are no longer with us include:

- Rudolf Steiner (1861–1925): Dr. Tom Cowan introduced me to Steiner's brilliant thinking about the heart.
- Dr. Randolph Stone (1890–1981): Stone was a doctor of osteopathy, chiropractic and naturopathy who studied the Ayurvedic and Oriental systems of medicine as well as the folk health practices of various cultures. Synthesizing East and West, he developed a type of energy medicine called polarity therapy (polaritytherapy.org).³³
- Harold Saxton Burr (1889–1973): At Yale, Burr made significant contributions to the study of the nervous system and bio-energetic phenomena, building our understanding of the human biofield.³⁴
- Robert O. Becker (1923–2008): Twice nominated for a Nobel Prize, orthopedic surgeon Robert O. Becker was a pioneer in the study of bioelectricity. In 1998, he published the seminal book, *The Body Electric: Electromagnetism and the Foundation of Life*.³⁵
- Valerie Hunt (1916–2014): An emeritus professor of physiological sciences at UCLA, Hunt is credited with being the first scientist to measure the human bioenergy field in a laboratory.³⁶

Important thinkers who are still with us include Dr. Tom Cowan, author of *Human Heart, Cosmic Heart*³⁷ and familiar, of course, to the Weston A. Price Foundation (WAPF) audience. Others include:

- Rollin McCraty: McCraty is executive vice president and research director at the HeartMath Institute. As a psychophysicist, McCraty has broadened our understanding of the physiology of emotion and the influence of emotions on health.³⁸
- Gerald Pollack: Dr. Pollack is widely known for his groundbreaking work on the fourth phase of water.³⁹
- Caroline Myss: Myss writes and speaks about the fields of human consciousness, spirituality and mysticism, health, energy medicine and the science of medical intuition.⁴⁰
- James Oschman: Physiologist, cellular biologist and biophysicist Oschman is the author of the 2000 book, *Energy Medicine: The Scientific Basis*.⁴¹ A second edition was published in 2015.
- Jim Feil: My polarity therapy teacher, Dr. Jim Feil, studied with polarity therapy founder Dr. Randolph Stone and has been training other polarity therapists since 1976.⁴²

Energization of the capillaries by the exclusion zone of the fourth phase of water can explain blood flow.

oles, there is a basal membrane, a thin (but very important) muscle layer and an endothelium. In comparison, the capillaries only have the basal membrane and the endothelium—but no muscle component.

In the arteriole vessel wall, the endothelium is a cellular monolayer (that is, a single layer of cells), and beneath the endothelium is the smooth muscle. A gas called nitric oxide (NO) keeps the arteries open and regulates vascular tone. NO is produced via a very short metabolic pathway: the amino acid L-arginine, via nitric oxide synthase (NOS) enzymes, produces NO, which flows to and dilates the smooth muscle. (In other words, we are constantly being dilated by a gas.)

Decreased NO is a marker of endothelial dysfunction. In fact, a method to detect impairment of NO synthesis is to assess endothelial function using acetylcholine.²⁵ If you see vasodilatation, the endothelium is normal, but if you observe vasoconstriction, that is a sign of an altered endothelium. Again, this is in the arterioles, which have the muscle layer.

Patients who have chronic dilated cardiomyopathy have enlarged hearts that are not contracting—poor function. It is one of the diseases that often points toward a heart transplant, because seemingly there is no other solution. Curiously, however, there appears to be no organic basis for the dysfunction.^{26,27} In 2002, we published a study on coronary endothelial dysfunction and myocardial cell damage in chronic idiopathic dilated cardiomyopathy.²⁸ We found that spasm in the arterioles (or what researchers termed “microvascular hyperreactivity”²⁹ in a 1982 paper) was correlated with myocardial cell damage. The more spasm, the more myocyte damage. We were able to quantify the degree of damage according to the degree of spasm.

FOURTH-PHASE WATER AND THE HEART

What is the cause of the endothelial dys-

function and myocyte damage that we observed in chronic dilated cardiomyopathy? To answer this question, we must turn to the capillary circulation. At the level of the aorta and its main branches, circulation is pulsatile—the vortex dynamics are clear. However, at the microvascular level, pulsatility does not exist because capillary circulation is continuous and, as already mentioned, there is no muscle there.

At the capillary level, energization of the capillaries by the exclusion zone of the fourth phase of water (as described by the brilliant Gerald Pollack) can explain blood flow. Everyone should read Dr. Pollack’s marvelous book, *The Fourth Phase of Water: Beyond Solid, Liquid, and Vapor*.³⁰ Pollack tells us that if you put small particles in a glass of water, the particulated water does not reach the glass. He calls this structured or liquid crystalline water the “exclusion zone” (EZ).

When the EZ is built, water, which is neutral, divides into negative charges (electrons) and positive charges (protons and hydrogen ions). Functionally, this creates a battery, but it’s not free—it requires energy to stay like this. As Pollack writes, “some energy [has] to sustain the charge separation once it [is] established.”³⁰ Where does the energy come from? The sun! Specifically, explains Pollack, “The vehicle of energy supply [is] radiant electromagnetic energy—which the water absorbs and uses for building the EZ and maintaining the attendant charge separation.” In the presence of sun (or infrared radiation), you can create a battery that runs forever. Importantly, EZ size is proportional to the intensity of the light energy. If you illuminate a glass of water, the exclusion zone increases.

The exclusion zone sticks to hydrophilic surfaces, and in humans, the cellular mitochondria are full of hydrophilic membranes. As it happens, the hydrogen ions formed in the exclusion zone are the substrate for ATP (adenosine

IRON AND THE CARDIAC FIELD

The conclusion that helical suction by the cardiac field provides the driving force in the arteries and arterioles leads to the question, what is the element that is the target of the cardiac magnetic field’s suction? I believe that, just as an ordinary magnet attracts iron, it is the iron atom in each one of the four oxygen-carrying hemoglobin molecules. This would explain the severe anemia observed in patients with chronic heart failure,⁴³ which has always been somewhat of a medical enigma.⁴⁴

triphosphate), the body's energy currency. British scientist Peter Mitchell (1920–1992) received a Nobel Prize in Chemistry in 1978 for describing the synthesis of ATP from the hydrogen ions. The elegant implications of Pollack's work are that there is a relationship between the division of charges in the structured water in our body and our production of ATP.

If you immerse a tube with a hydrophilic surface in a glass of water, it will induce a spontaneous flow. The driving force comes from the radiant energy absorbed and stored in the water. This observation takes us back to the capillaries: capillary circulation is the result of the energy absorbed and stored in the exclusion zone. This is the same mechanism that drives water up a three-hundred-foot sequoia tree against the force of gravity.

In a fascinating study published in 2023, Pollack and coauthor Zheng Li showed that an infrared-dependent, blood-vessel-based flow-driving mechanism operates in the circulatory system, “complementing the action of the heart.”³¹ Considering “the possibility that, by exploiting this mechanism, blood vessels, themselves, could propel flow,” they stopped the heart of a three-day-old chick embryo and monitored the microcirculation. They observed that blood continued to flow, albeit at a lower velocity, for fifty minutes—and when they introduced infrared energy, the postmortem flow increased. In other words, in the setting of a stopped heart, flow velocity increased with exposure to infrared energy and diminished without it. The finding that energy in the form of light is a driving force in the capillaries is a major scientific contribution.

Summing up, we can observe that helical suction by the cardiac field provides the driving force in the arteries and arterioles, while capillary flow is made possible by the fourth phase of water, energized by the sun. Blood circulation is a fascinating dance between two energetic forces.

ENERGY THERAPY

Once again, we can ask, does energy therapy increase the efficiency of microcirculation, and how? In a normal biofield, you have normal microcirculation. In a blocked biofield, you have

less energy, reduced exclusion zone, less ATP and impaired microcirculation. Patients say, “I feel blocked.” However, these physiologic indicators are actually defense mechanisms; the person has contracted their biofield because of emotions.

Could emotions be a cause of dilated cardiomyopathy? Medicine does not consider the possibility of emotions being the origin of heart conditions because it deems emotions physiologically irrelevant. However, when UCLA neurologist Valerie Hunt (1916–2014) measured electromagnetism around the body, she unequivocally concluded that emotions organize the biofield. In an expanded cardiac field, your heart is okay, but in a blocked biofield, you may have a broken heart. In the framework of Indian chakras, we're talking about the third (solar plexus) and fourth (heart) chakras. Grief, disappointment, betrayal, solitude and frustration can all close your biofield—and close your cardiac field as well. When the heart's energy field closes, it is like entering a tunnel when you're on the phone—you've lost reception and the information cannot reach you. Another way of describing it is that the conductor is missing the sheet music—and music is directed by the conductor, not the musicians. When you open the cardiac field, suddenly the conductor has the sheet music.

As I began learning about energy medicine, I learned that magnetic induction with the hands is very powerful. With the hands, you can expand the biofield and literally release a broken heart. Without needing years of training, everyone can do this. I taught my daughter how to move energy with her hands when she was fourteen, and when her classmates were anxious, they would come to her to feel better. When you put your hands on a person who is suffering from anxiety, you can relieve it within minutes. People have done this for thousands of years.

Beyond alleviating anxiety, I have three cases that show that you can use energy therapy to reverse more serious conditions like dilated cardiomyopathy. In my very first case, a seventy-year-old woman had been diagnosed with dilated cardiomyopathy at age fifty-five, characterized by progression of heart failure.

When the heart's energy field closes, it is like entering a tunnel when you're on the phone—you've lost reception and the information cannot reach you.

Her clinical symptoms appeared when the first of her four daughters, against her strong religious beliefs, decided to divorce. From her perspective, this was a family disaster, and she experienced great sorrow and anger. One year after polarity therapy opened her third and fourth chakras, her ventricular function had returned to normal—a complete reversal of cardiac dysfunction.

My second case was a forty-eight-year-old man. During a vacation in France, he learned that he had been fired. Experiencing a great sense of betrayal and disappointment, he developed chest pain and breathlessness and progressed to ventricular failure so severe that he was put on the waiting list for a heart transplant. After energy therapy, he gradually improved, and one year later, his heart was normal. He no longer had any need to be on the waiting list.

My third case was a sixty-year-old architect sent for a heart transplant. Severe heart failure had arisen ten years previously, coinciding with the cancer death of his nine-year-old son. After energy therapy, he experienced his son telling him, “Dad, it was not in your hands [to cure me]. Don’t blame yourself. I told you I was going to die.” He had not recalled his son’s death prediction, but this procedure transformed him, relieving him of his grief and guilt. Within a few months, his heart was normal.

These three individuals are but a small sample of the patients I’ve seen over the years. Their cases show that energy therapy can improve and even reverse heart failure. The dramatic reconceptualization of the heart’s structure and function launched by Torrent-Guasp has led us far beyond the confines of conventional cardiology. 

Manel Ballester-Rodés, MD, was trained in internal medicine and cardiology at the Faculty of Medicine at the Autonomous University of Barcelona. He was head of the Echocardiography Lab at London’s National Heart Hospital (1979-1983); medical chief of the Heart Failure and Transplant Unit at Hospital Santa Creu i Sant Pau, Barcelona (1983-1999); chairman of Cardiology Lleida (1999-2003); co-founder of the Molecular Biology Group on Apoptosis; and worked in cooperation with Francisco Torrent-Guasp, MD, on the anatomy and function of the helical heart (1985-2006). He has been involved in energy medicine clinical activities and research since 2006. His book on the heart is forthcoming.

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A NIGHT AT THE OLD BALL GAME

The office staff enjoys a rare Washington Nationals win. Left to right, Becky Bell, Yolanda Hawthorne, Hilda Gore, Sally Fallon Morell and Kathy Kramer.

Neurological and Chronic Disease: The Aluminum Connection

By Christopher Shaw, PhD

As a neuroscientist, I study various kinds of toxicology as applied to human neurological disease. For much of my career, I have focused on a disease called amyotrophic lateral sclerosis (ALS), also known as “Lou Gehrig’s disease.” ALS is a progressive neurodegenerative disease that affects nerve cells in the brain and spinal cord, eventually causing paralysis and death by respiratory failure.

It was my interest in ALS that prompted me to look at a mystery disease that was once prevalent on Guam, called amyotrophic lateral sclerosis-parkinsonism dementia complex (ALS-PDC). As it turns out, the story of ALS-PDC provides interesting clues about aluminum toxicity, though I did not initially suspect aluminum as a culprit. To properly tell the story requires that I address the related topics of aluminum chemistry, aluminum’s distribution in the biosphere and aluminum’s use as the dominant adjuvant in vaccines, including its role in Gulf War syndrome.

A MYSTERY IN GUAM

The Spanish occupied Guam for several hundred years, until America took over in 1898 as a consequence of the Spanish-American War. The individual who first described ALS-PDC in the scientific literature was a neuropathologist named Harry M. Zimmerman, who went to Guam with the U.S. Navy right after WWII. He noticed that a disproportionate number of Guam's indigenous Chamorro people seemed to have ALS.¹

In 1953, Leonard Kurland—considered the “father of neuroepidemiology”—and a neurologist named Donald Mulder arrived on Guam to assess the ALS cluster and then found what they described as “parkinsonism dementia complex” (PDC). Parkinson's disease, a motor disease that originates in the area of the brain called the substantia nigra, had first been described in the early nineteenth century by James Parkinson.² Characteristic symptoms of Parkinson's disease are tremors, gait disturbances and slow shuffling, but what Kurland and Mulder found on Guam was different. Among the unusual features that they observed were a strong dementia component, “frozen” faces and, often, a young age of onset in the teenage years.

Kurland, whose career included stints at the National Institute of Health (NIH) and Mayo Clinic, thought that if researchers could identify the disease's causes, it would be the medical equivalent of the Rosetta Stone (the stele that allowed scholars to decipher ancient Egyptian hieroglyphics), providing clues concerning the rise of ALS, parkinsonism, Alzheimer's and other dementias not just on Guam but around the world. At the time, Guam's indigenous population was small and relatively genetically homogeneous—what Kurland termed a “geographical isolate.”³ When you're looking for causal factors, whether environmental or genetic, it can be like looking for a needle in a haystack, but at least on Guam, the haystack was small. Kurland's assumption—erroneous, as things turned out—was that this would make the disease's etiology easier to figure out.

As the twofold ALS-PDC nomenclature suggests, researchers initially thought they might be looking at two separate diseases. My own research on ALS-PDC has led me to believe

that it was one disease with two separate expressions. Quite unusually, ALS-PDC could present as classic ALS, as the PDC component or as both. Roughly 10 percent had both components, with the ALS part typically manifesting first. This odd variability was evident in various ALS-PDC “family pedigrees.” For example, if one or both parents had ALS, some of the children might have ALS, some might have PDC and some might have both.

ALS-PDC had a seemingly inexplicable twentieth-century rise and fall. Although there are some Spanish records suggesting its presence in the nineteenth century or earlier, it rose rapidly and peaked, becoming the leading cause of adult Chamorro death, from the mid-1940s to mid-1950s.⁴ Then, it declined and disappeared. The Guamanian versions of both ALS and PDC have not been seen in those born after 1960.

THE CYCAD CONNECTION

In the early 1960s, Kurland brought in an ethnobotanist named Margaret Whiting, who lived with Chamorro families to investigate nutritional, environmental and behavioral variables that might provide disease clues. Despite the observed “family pedigrees,” researchers had decided that the disease was probably not hereditary.

After years of research, Whiting decided that the culprit was consumption of the seeds of the cycad palm.⁵ This hypothesis seemed to be consistent with the peculiar incidence pattern of ALS-PDC—the peak in the 1940s and 1950s and ensuing dropoff—which could at least in part be explained by the displacement of cycad seed consumption by a more Westernized diet and American fast food. Moreover, ALS-PDC occurred on Guam and the neighboring island of Rota but not on the Northern Mariana island of Saipan; when the Japanese occupied Saipan after WWI, they cut down the cycads for sugar plantations.

Cycads are a very ancient order of trees, and consumption of cycad seeds in the form of tortillas or dumplings made with cycad seed flour has been going on for a long time, including as a famine food. Typhoons go through Guam all the time; when crops were wiped out, the Chamorros would go to the forest and harvest the cycad. Today, the cycad flour (which the Chamorros call *fadang*) remains a cultural icon, and many still eat it.

Cycads may look like palm trees, but as gymnosperms directly fertilized by pollination, they are actually more closely related to the pine tree. The seeds are fairly large—about the size of a small grapefruit. Perhaps through bitter experience, Chamorro women knew that there was something toxic about the seeds, which indeed turns out to be the case. Consequently, when they harvested the seeds, they would break open the fleshy outer layer (the sarcotesta) and the protective hard shell inside the sarcotesta to access the internal gametophyte layer. Then, they would chop that into pieces and wash it for up to seven days. Only then was it considered safe to grind into flour and eat.

In the search for cycad components that might cause ALS-PDC, Kurland and Whiting extracted an amino acid called cycasin, which has a sugar molecule, glucose, on one end. When you pull the sugar off, you get a toxic metabolite called MAM (methylazoxymethanol), which has

Prior to the mid-1850s when aluminum began to be industrially extracted, it was not geologically available except near volcanic zones.

genotoxic effects. However, when researchers Peter Spencer and Glen Kisby at the Center for Research on Occupational and Environmental Toxicology in Oregon fed MAM to mice and rats, they got interesting results but no ALS-PDC.⁶ So, the answer to the question of whether MAM was the causal factor is, “probably not.”

Spencer and Kisby also looked at a cycad seed component called BMAA (beta-N-methylamino-L-alanine),⁷ but it turned out to be a very weak neurotoxin.⁸ Feeding monkeys a high concentration of BMAA produced some behavioral changes but no dead neurons—a bit of a problem for something you hypothesize to be causing neurological disease. Moreover, the Chamorros’ practice of washing their cycad meant that they were washing out a lot of the BMAA.

Later, a group headed by Paul Cox looked at BMAA and came up with a hypothesis of “biomagnification,” defining it as “the increasing accumulation of bioactive, often deleterious molecules” up the food chain.⁹ Their thinking was that fruit bats, once quite prevalent on Guam, would eat the cycad seeds, and when humans ate the bats, they would get a higher concentration of BMAA. Again, however, when they tested this hypothesis, they found very little in the way of neurological damage. In my view, their findings indicate that while BMAA may have played a partial role, it was not the driving factor behind ALS-PDC.

MY WORK ON CYCAD NEUROTOXINS

In the 2000s, my research group obtained washed cycad seed flour from a Chamorro gentleman who worked with the ALS-PDC consortium with Dr. Ulla Craig in Guam and had harvested cycad both for research purposes and for his family’s consumption. When we extracted a series of molecules and did various toxicology tests on them in a cell-culture model, we found that after all the washing and extraction, three kinds of steryl glucoside molecules seemed to be the most toxic.¹⁰

Our next step was to calculate how much of the cycad starch the Chamorros would have eaten on a daily basis. We made one-gram pellets out of the cycad seed flour and fed it to one group of outbred colony mice, while a second

group of mice got pellets of regular flour.¹¹ We then did a series of motor tests and found that the experimental group very quickly began to lose a reflex considered to be a marker of alpha motor neuron integrity. When you take a mouse and gently lift it by its tail, it should splay out its limbs—if it doesn’t do that, there’s something wrong in the motor system. In our cycad flour group, this reflex fell off very quickly. At the same time, the mice began to move differently, showing a much smaller gait length. Their balance was also affected. In water maze tests, the cycad-fed mice made a lot more errors. Finally, we observed cognitive deficits in a test for different kinds of reference memory.

When we sacrificed the mice and looked inside the spinal cord and brain, comparing the untreated mice fed regular flour with the cycad-fed mice, we observed apoptosis (programmed cell death) in the hippocampus, spinal cord and substantia nigra. Both behaviorally and histologically, the cycad-fed animals looked like ALS-PDC patients.¹² We then synthesized the cycad toxin BSSG (beta-sitosterol-beta-D-glucoside) and found that it did much the same thing, killing motor neurons in the lumbar and thoracic spine and dopamine-containing neurons in the substantia nigra.¹³

THE ALUMINUM AGE

Now let’s turn to a consideration of aluminum. Geologically, aluminum is the third most common element in the Earth’s crust and is mostly found in combination with other minerals, as in bauxite. It binds very avidly to and interferes with elements essential for life such as carbon, sulfur, phosphorus and others.¹⁴ There are no beneficial biological roles for aluminum in any animal species, and although some plants may use it to offset ions such as calcium that can be overexpressed, plants don’t use it for anything else. Christopher Exley, one of the world’s leading experts on aluminum chemistry and biochemistry, suggests that aluminum was “selected out of evolution,”¹⁵ because, prior to the mid-1850s when it began to be industrially extracted, it was not geologically available except near volcanic zones.

Because of aluminum’s properties—it’s durable, lightweight, relatively non-corrosive

and conductive—many people think it’s a great metal, but in the human body, it becomes toxic. It interacts at all levels of the nervous system—from the genes to the organelles, cells and synapses—and affects them all in a negative way. Crucially, it is also a very powerful immune system stimulant. And if it can hyperstimulate your immune system, it can certainly hyperstimulate the microglia in your brain, which are there to maintain neuronal networks and repair damaged cells.

Note that awareness of aluminum’s toxicity is not new. Over a century ago, in 1911, biochemist and dentist William Gies wrote, “These studies have convinced me that the use in food of aluminum or any other aluminum compound is a dangerous practice. That the aluminum ion is very toxic is well known.” Gies was quoting an even older literature. Yet today, aluminum surrounds us and has become part of our human biosphere. Exley calls our era the “Age of Aluminum.”

A seminal paper by my long-time colleague Lucija Tomljenovic has a chart of the major sources of bioavailable aluminum, which include food (aluminum is used, for example, as an anti-caking agent¹⁶), water, pharmaceuticals, cosmetics and the aluminum industry itself.¹⁷ Some water treatment plants add aluminum citrate or aluminum sulfate during treatment because aluminum acts as a flocculant, causing unwanted particles in the water to precipitate.¹⁸ The potential adverse effects on human health have made this a controversial practice,¹⁹ but the chemical industry continues to praise aluminum sulfate as “the unsung hero of water treatment.”²⁰

Pharmaceuticals such as antacids, buffered analgesics, anti-ulceratives and anti-diarrheal drugs contain a fair amount of bioavailable aluminum—and vaccines contain a lot. In fact, roughly two-thirds of pediatric vaccines in both Canada and the U.S. have aluminum adjuvants—anywhere from one hundred twenty-five to over six hundred micrograms per dose.²¹ Aluminum is also found in cosmetics. Exley’s group looked at the incidence of breast cancer in women who exfoliated under their arms and used aluminum-containing antiperspirants, finding that frequent use of the antiperspirants

could lead to aluminum accumulation in breast tissue and increased breast cancer risk.²² When cooking very acidic foods, aluminum is released from aluminum pots and pans and from aluminum foil.

Aluminum is toxic not just by ingestion or injection but also by inhalation. A 2020 study by Chinese researchers looked at the relationship between aluminum plasma levels and cognitive performance among aluminum-exposed workers; they concluded that “aluminum exposure may exert a substantial effect on impairing executive/visuospatial functions.”²³

LIES ABOUT ALUMINUM ADJUVANTS

The story of how aluminum first made its way into vaccines is that people working for Alexander Glenny and colleagues at the Wellcome Physiological Research Laboratories in Britain in the 1920s were trying to get their vaccines to generate a longer immune response. After some trial and error, they reported in 1926 that aluminum potassium sulphate did the trick,²⁴ producing “better antibody responses than soluble antigen alone.”²⁵ Subsequently, aluminum phosphate and aluminum hydroxide compounds came into common use in vaccines. Both are toxic. Merck also makes a proprietary aluminum adjuvant called amorphous aluminum hydroxyphosphate sulfate (AAHS) that is even more potent²⁶ than the other two; it is a central component of the Gardasil human papillomavirus (HPV) vaccine.

My guess is that in Glenny’s day, researchers may have assumed that aluminum was safe because aluminum potassium sulfate was (and still is) widely available for pickling. Perhaps they reasoned, “If it’s good in pickles, it must be fine in you!” At any rate, aluminum adjuvants took off and became a staple of almost every vaccine. Later, the U.S. Food and Drug Administration (FDA) used Glenny’s assumptions—as well as its own bad modeling (see next paragraph)—to “grandfather” aluminum adjuvants and pronounce them safe. In reality, no regulatory agency has ever tested aluminum adjuvants for safety. “What is found instead,” says Tomljenovic, “are unsubstantiated claims and widespread misinformation about the presumed safety of these compounds, and sadly

If aluminum can hyperstimulate your immune system, it can certainly hyperstimulate the microglia in your brain.

these are propagated not only by the vaccine manufacturers but also by the regulatory agencies.”²⁶

In 2011, the FDA’s Robert Mitkus and his crowd worried that aluminum adjuvants were developing a bad reputation, so they published a paper reporting on some pharmacokinetic studies.²⁷ Their paper is a classic example of bad modeling. They used aluminum citrate as a modeling method, even though aluminum citrate has never been in any vaccine. This allowed them to assert that aluminum citrate “vanishes” the minute you put it in the blood, even though aluminum hydroxide and aluminum phosphate do the exact opposite! In fact, the work of Romain Gherardi and colleagues in Paris has shown that aluminum adjuvants have long-lasting biopersistence, setting the stage for “slow brain translocation and delayed neurotoxicity,” leading to cognitive impairment.²⁸ Gherardi’s research shows that injected aluminum is neurotoxic not just for children but for adults as well.

With lawyers Aaron Siri (of Siri & Glimstad), who works with the Informed Consent Action Network, and Mary Holland of Children’s Health Defense, we decided to do a Freedom of Information Act request and ask the Centers for Disease Control and Prevention (CDC), as well as FDA and NIH, for the data that they rely on to assert that aluminum adjuvants in vaccines are safe for children and infants. We asked all three agencies for “copies of any human or animal studies involving the subcutaneous or intramuscular injection of aluminum adjuvants relied upon by the CDC to establish the safety of injecting infants and children with aluminum hydroxide, aluminum phosphate or amorphous aluminum hydroxyphosphate sulfate.” All three agencies said, “We could find no records responsive to your request.”

Paul Offit and the Children’s Hospital of Philadelphia (CHOP) promote mass vaccination with aluminum-adjuvanted vaccines for all children. CHOP used to have a webpage stating that aluminum is an “essential metal,” which it most assuredly is not! They also said on that page, “It is found in all tissues and is also believed to play an important role in the development of a healthy fetus.” That is not

true either! Ostensibly to prove their point, they cited a 1986 paper in *Environmental Health Perspectives* by Swedish researcher PO Ganrot, “Metabolism and Possible Health Effects of Aluminum.”²⁹ Ganrot’s seventy-eight-page manuscript included nine hundred fifty-nine references, none of which support the idea that aluminum is safe. Quite the opposite: Ganrot concluded, “In no case has [aluminum] been shown to have a definite biological function. Taken together, this suggests that [aluminum] possesses properties incompatible with fundamental life processes.” After I gave a talk referencing this webpage, CHOP took it down (but not before we saved it).

A 2020 paper by James Lyons-Weiler, Dr. Paul Thomas and other colleagues compared the aluminum content in pediatric vaccines over the first two years of life for three different vaccine schedules: the standard CDC schedule, the CDC schedule using low- or no-aluminum vaccines and the schedule as per Dr. Thomas’s “Vaccine Friendly Plan.”³⁰ They found that the standard CDC schedule injects infants with aluminum levels that frequently exceed the declared “safe level” in adults, producing chronic aluminum toxicity.

THE GULF WAR SYNDROME CLUSTER

At a certain point, my research group decided to look for another cluster of neurological disease besides the one on Guam. The Guam cluster had led to insights about cycad and the cycad toxin BSSG, but at that time, we still thought that aluminum had nothing to do with ALS-PDC.

We settled on Gulf War syndrome as our second cluster. We noticed that whether or not soldiers had deployed, they all had one thing in common—they had received a large number of vaccines, including the anthrax vaccine, and many of the shots contained aluminum adjuvants. The military gave some soldiers up to twenty-four vaccines.

When we tried to buy some anthrax vaccines from the manufacturer, they refused to sell them to us (no real surprise there). We decided to look at what was in them instead, and the ingredient that struck us as the most likely culprit for Gulf War syndrome was the aluminum hydroxide adjuvant. Next, we did the same type of animal experiment that we had done with the cycad. We injected aluminum hydroxide into mice in a dose comparable to what the soldiers would have received by weight and looked at various motor behaviors. The aluminum-injected mice very quickly lost motor function; they also behaved very differently on an open field (a test of neural damage and anxiety), and they displayed cognitive deficits. In other words, they behaved a lot like the cycad-fed mice. In addition, our histological examination of the mice injected with aluminum hydroxide adjuvant showed that the aluminum targeted the motor system and killed motor neurons by apoptosis.³¹

NEUROTOXICITY CLUES PILE UP

In 2011, Lucija Tomljenovic wrote the paper that I referenced earlier—for all intents and purposes a meta-analysis of aluminum toxicity—looking at aluminum and Alzheimer’s disease (AD).¹⁷ She concluded, “The hypothesis that [aluminum] significantly contributes to AD is built upon very solid experimental evidence and should not be dismissed.”

The paper included table after table of data showing that aluminum has impacts at every level of the nervous system and at every level of cell and systems action.

That same year, Tomljenovic and I published a paper that asked the question, “Do aluminum vaccine adjuvants contribute to the rising prevalence of autism?”³² The clear answer, with a high degree of statistical significance, seemed to be yes, whether the level of aluminum was low, medium or high. Recognizing that correlation does not equal causation, we also looked at and satisfied most of the Bradford Hill criteria for causality (strength of association, consistency, specificity, temporal precedence, dose-response relationship, plausibility, coherence, experimentation and analogy).³³

Chris Exley’s research group reached similar conclusions about aluminum and its relationship to Alzheimer’s and autism. They did important work showing the presence of aluminum in autistic brains³⁴ and in the Alzheimer’s brain,³⁵ confirming that aluminum gets into and damages the nervous system. Unfortunately, Exley managed to annoy both the aluminum industry and the pharmaceutical industry, and in 2021, he was forced out of his decades-long academic position at Keele University when the university refused to let him take money from private donors to do aluminum research.³⁶ The shutting down of his top-tier lab is a tragedy for aluminum science.

If you have normal kidney function, you will generally be able to excrete over 99 percent of ingested aluminum—although you will get less of it out if you are either very young (and don’t yet have mature kidneys) or elderly (when kidney function is slowly declining). Injected aluminum behaves very differently. Using compounds that aluminum binds to, the Gherardi group has traced injected aluminum hydroxide in mice, showing that it does not remain in the muscle where it’s injected but can travel to the spleen and to different cells in the brain.³⁷ In other words, the trajectory of injected aluminum is entirely different from that of ingested aluminum. Gherardi and colleagues concluded that “continuously escalating doses of this poorly biodegradable adjuvant. . . may become insidiously unsafe,” notably in cases of “overimmunization.”

A dozen or so years ago, Spanish researcher Luis Luján observed that sheep who had received an aluminum-adjuvant-containing vaccine for a ruminant disease called bluetongue experienced severe muscular and subcutaneous body wasting and spinal column necrosis.^{38,39} Luján decided that what he was seeing was a form of “autoimmune/autoinflammatory

syndrome induced by adjuvants” (ASIA), a label originally put forth by Israeli researcher Yehuda Schoenfeld.⁴⁰ Soon after doing his work with sheep, Luján contacted our lab to report that they had encountered the same phenomena that we had observed in mice.

The immune system is used to dealing with pathological organisms, but it doesn’t know how to deal with aluminum. All it can do—because it has been “revved up” by the adjuvant—is go on the attack. With other colleagues, Tomljenovic and I have published a number of papers addressing HPV vaccines.⁴¹⁻⁴³ Notably, the nine-strain Gardasil-9 (now the only HPV jab on offer) contains more than double the aluminum content of the already aluminum-heavy bivalent and quadrivalent formulations originally introduced.⁴⁴ Before the advent of the disastrous mRNA Covid shots, both the four-strain and nine-strain Gardasil shots were some of the most notorious vaccines causing serious adverse events, including autoimmune disease and death.⁴⁵

BACK TO GUAM

The early researchers looking at ALS-PDC in Guam briefly considered a connection with aluminum. D. Carleton Gajdusek, 1976 co-recipient of a Nobel Prize for his studies of kuru in New Guinea, hypothesized in the early 1980s that aluminum was interfering with calcium-magnesium homeostasis, leading to neurodegeneration.^{46,47} In a 1989 study, neurologist John Steele reported that Guam’s agricultural soils “averaged 42-fold higher yield of elutable [extractable by solvent] aluminium” compared to soil samples from Palau and Jamaica, leading his research group to recommend further study of soil aluminum in Guam.⁴⁸ By 1995, however,

TACKLING THE ALUMINUM BODY BURDEN

In his book, *Imagine You Are an Aluminum Atom: Discussions with Mr. Aluminum*,⁵³ and in his peer-reviewed publications,^{54,55} aluminum expert Chris Exley discusses regular consumption of silicon-rich mineral water as a non-invasive method for reducing the body burden of aluminum. In addition, even if the human body has an easier time excreting ingested (versus injected) aluminum, it makes sense to eliminate aluminum-containing processed foods from your diet.

Another interesting observation—anecdotal at this point because no one is funding this type of research—is that hyperbaric oxygen may be able to diminish symptoms of conditions like ALS. Some researchers speculate that in ALS and other neurological conditions, some of the neurons may be simply non-functional rather than “dead and gone.” There is suggestive anecdotal evidence that by putting high levels of oxygen into the cells, hyperbaric oxygen may recover some of those neurons.

Steele was pronouncing the aluminum hypothesis “unlikely.”⁴⁹ And with that, researchers’ interest in aluminum seems to have evaporated.

Because researchers had discounted the presence of aluminum on Guam, I did not initially consider it as a potential causal factor—but it is! A curious fact, never really explained, was that there were ALS-PDC “hotspots” in three southern villages of Guam. This prompted speculation that there was something about the southern region that was different. In 2022, I published a paper with Tom Marler reporting on our analysis of different metals found in cycad seeds.⁵⁰ In southern Guam, depending on growing conditions, we found an aluminum content in cycad seeds that was up to eighty micrograms per gram. In that region, aluminum and selenium accounted for 90 percent of the seeds’ total metal content. Shaded forest microsites had a higher metals content than seeds grown with more sunlight transmission. We know that the southern region had more volcanic soil and, therefore, more aluminum in the soil than elsewhere. In my view, aluminum almost certainly played a role in ALS-PDC.

THE STATE OF ALUMINUM SCIENCE

The multiple strands of research I have just described—by my own lab and research groups around the world—reveal an indisputable role of aluminum (and, notably, aluminum adjuvants) in neurodegeneration. We still don’t know enough about aluminum, but we know that it’s a hyperstimulant and is very toxic. Unfortunately, the research done by independent scientists is always under attack. We get labeled as “pseudoscientists,” which makes it virtually impossible to get grants.

Informed consent, as per the Nuremberg Code and Declaration of Helsinki, requires that people be provided with information about all risks, but that isn’t what happens in practice. Instead, governments respond to safety concerns with “Trust us, we’re the experts.” This has been their standard response every time the public raises questions about chemical, pharmaceutical or industrial products, whether tobacco, lead, PCBs, GMOs, biosolids or, most recently, the Covid mRNA gene products.

The pharmaceutical industry spends more money across both sides of the aisle of Congress than any other lobbying group—even more than defense or agribusiness. When corporations rule, you are essentially looking at fascism, although I agree with Mussolini that it “should more appropriately be called Corporatism, because it is a merger of state and corporate power.” Philosopher Giorgio Agamben has described what he calls a “state of exception”—the space between laws—referring to governments that work outside of their mandates to enforce measures that are usually for the benefit of corporations. The “state of exception” resembles a state of emergency or state of war, allowing governments to adopt control measures without any real justification for what they’re doing.

One result of the corporatism model is that the U.S. and Canada now have a massive chronic illness problem. As of 2023, fully 76 percent of U.S. adults had at least one chronic condition,⁵¹ as did at least 54 percent of U.S. children according to a now-dated study from 2011.⁵² Aluminum is certainly a major contributor to human disease and to neurological conditions, in particular. Our lab’s studies have conclusively demonstrated that we can produce an ALS phenotype by injecting animals with

aluminum hydroxide.

Considering that neurological diseases tend to take a while to emerge (a lot of cell death has to occur before they are expressed), I think what we are seeing currently is only the tip of the iceberg. If you combine the neurological assault from repeat injection with aluminum adjuvants and the new and as yet not-fully-understood neurological assault from injectable mRNA technology, we could soon see a neurological crisis of unimaginable proportions. Alzheimer’s and ALS already impose a heavy caregiving burden on families, with relatives often having to leave the workforce to take care of their loved ones. How will society manage double or triple the number of neurological injuries? Our goal must be to stop putting substances like aluminum adjuvants—and now, mRNA gene products—in our bodies so that we can restore the health of our population and prevent the chronic diseases of the future.☯

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(SMAC). In addition to his academic career, he is a dedicated father of five and a trained paramedic.

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Wireless Exposures Must Be Reduced

By Camilla Rees, MBA

There are signs that a serious evaluation is underway, well overdue, to assess the roots of chronic illness. As a long-time health and environmental activist, this is music to my ears. It has long been obvious that for health care to be sustainable, the industry must move out of a “symptom suppression” model of care and begin looking in earnest for the underlying sources of imbalance that cause biological dysregulation and disease. As the old adage says, “If we do not look, we cannot see.”

I am delighted to encounter more truth-telling about the innumerable ways in which modern society has enabled destructive pollution of all kinds to infiltrate the pristine beauty of the planet’s ecosystem and our bodies. In the process, this assault has disrupted the natural balance of communication throughout the natural world and limited our potential to thrive, both individually and as a species.

The government report titled *Make Our Children Healthy Again Assessment* (“MAHA Report”)¹ lists many underlying factors driving growth in chronic illnesses, including diet, toxic materials, medical treatments, environmental factors and electromagnetic fields. Unfortunately, it won’t be easy to face off against deeply entrenched commercial interests to address them. Many corporations operate without a moral compass, focusing on short-term profits, stock prices and growth for growth’s sake, perhaps checking boxes in the name of being “green” but without concerning themselves with the interconnected whole of which we are privileged to be a part. There is no road map for raising consciousness and motivating society’s political and business leaders to transform whole industries and economic systems to be supportive of life.

There is a need to reimagine, redesign and recreate a world in which humans cooperate with Nature and flourish, rather than struggle with toxic environments. What is it about our culture that encourages us not to think of our bodies as interdependent living systems within the larger ecosystem around us? What is it that

fosters a narrow, materialistic and self-oriented worldview lacking appreciation for the critical responsibility—and opportunity—we have to nurture life? What if our culture were to radically shift its orientation toward a commitment to making the health of biological systems our number-one priority throughout all sectors of the economy—including in the very harmful telecommunications (“telecom”) industry?

CHANGE IS NEEDED

For over fifteen years, my advocacy has focused on the ever-increasing wireless radiation pervading our lives. We desperately need to transform how we use these communication technologies as well as how they are delivered.

There are well-established ways to enjoy advanced communications more safely and responsibly than we do today. Hard-wired

communications technologies such as fiber, cable and, for home-based electronics, Ethernet cables—all readily available today—are faster and more secure, resilient and energy-efficient. In addition, hard-wired technologies, unlike wireless technologies, do not cause biological dysregulation and disease. Except in cases where mobility is legitimately needed, such as with a cell phone, wireless access is an inferior technology, despite much hype.

Although hard-wired technologies are the better option, the telecom industry markets wireless technologies as if they were superior, claiming that each follow-on generation is “faster” and more desirable, without explaining that wireless communication will never be as fast as hard-wired connections because it is a shared medium. We all enjoy the conveniences of mobility, but if we understood the biological science, most of us would not welcome wireless risks in our homes or neighborhoods.



DECADES OF RESEARCH

We are all subject to the widespread marketing of wireless technologies, which persuades us that the technologies are a good thing. We assume that products like cell phones and wireless routers, or the cell towers in our neighborhoods, would never have been allowed on the market if the radiation they emit were harmful. Few of us understand that no U.S. government entity has ever said that wireless radiation is safe.

Actually, decades of scientific research—amounting to thousands of studies, including large review studies by the U.S. government itself—indicate that there are serious biological and health impacts to humans, animals and the ecosystem from exposure to wireless radiation. Way back in 1971, comprehensive government research from the Naval Medical Research Institute documented a wide range of wireless risks,² as did the Defense Intelligence Agency in 1976,³ NASA in 1972⁴ and 1981,⁵ the EPA in 1990,⁶ the U.S. Air Force in 1994⁷ and the Department of the Army in the mid-2000s.⁸ In an unusual move, one branch of the federal government (the Department of Interior) even criticized another federal department (the National Telecommunications and Information Administration in the Department of Commerce) in 2014,⁹ charging that the exposure guidelines set by the Federal Communications Commission (FCC) are inadequate to protect wildlife. Scientists in dozens of other countries have documented wireless risks in many meta-analyses. Yet when the wireless communications revolution began in earnest in the 1990s, this long-standing body of research was overlooked entirely.

We should be asking why no action has been taken to limit wireless exposures. Wireless radiation continuously degrades our physiological

functioning over time, including in less sensitive people who are unable to perceive the effects initially. “Boiling the frog slowly,” as the saying goes. How can it be that today, decades after government research showed a clear connection between radiofrequency radiation and biological harm, dozens of bills are before Congress seeking authorization for still more wireless? Bills seek to authorize more wireless spectrum (which will accelerate cell tower rollout); eliminate environmental reviews; approve funding allocated for high-speed broadband for wireless instead of for fiber; and gain approval for cell towers in national forests and national park recreation areas, despite the known fire risks. There is even a bill to allow antenna installation on any structure without consent.

Why, I wonder, does the federal government still subsidize the deployment of wireless infrastructure and services with taxpayer dollars, when the harms are well-established? Is Congress listening only to the telecom industry and being deceived about safety and sold a bill of goods?

RISING HEALTH RISKS

Seeing the writing on the wall, insurers have long refused to insure telecom service providers for health-related liabilities.¹⁰ Risk from electromagnetic fields has been placed in the highest category of casualty risk,¹¹ and the 5G networks rolling out today have been called a high “off the leash” risk.¹² In the annual reports (Form 10-K) that the Securities and Exchange Commission (SEC) requires from public companies, wireless service providers classify the radiation their transmitters emit as a “pollutant,” informing shareholders that they may incur significant financial losses due to the liability.

Wireless companies do not provide the consumers of these technologies or the people living near cell towers with the same risk information available to insurers or the SEC. Despite the long-standing red flags about risks from wireless exposures, wireless communication technologies continue to experience explosive and virtually unregulated growth, with over seven hundred billion dollars invested in network development to date.¹³ By 2023, wireless data traffic had grown to over one hundred trillion megabytes (MB).¹⁴ That same year, health care costs in the U.S. rose to almost five trillion dollars, up from one and one-half trillion dollars in 2000.¹⁵ Approximately 90 percent of health care costs today relate to chronic illness.

In February 2025, Richard Lear and I published a paper titled *Safety of Wireless Technologies: The Scientific View*.¹⁶ In it, we called attention to the 1971 U.S. Navy findings showing extensive biological and health effects from radiofrequency radiation—the same radiation emitted by today’s cell phones, wireless technologies and infrastructure—emphasizing that the U.S. government’s own research linked many of today’s fastest growing chronic illnesses to wireless radiation exposures long ago.¹⁷ In other words, the Navy’s report,² authored by Dr. Zory Glaser, PhD¹⁸ and titled *Bibliography of Reported Biological Phenomena (“Effects”) and Clinical Manifestations Attributed to Microwave and Radio-frequency Radiation*, forewarned about the wireless risks that have gone on to drive today’s chronic illness epidemic.

Dr. Glaser reviewed over two thousand studies published in the international scientific literature at the time and detailed the connection between wireless radiation and a wide range of biological and health effects. Because this occurred long before there was a consumer cell phone industry, the findings were derived from military and industrial research. Documented effects were body-wide and included central nervous system effects; genetic and chromosomal changes; reduced fertility; blood clotting; gastrointestinal, vascular and metabolic disorders, including changes in blood glucose concentration; and much more.

Antenna infrastructure began rolling out across the U.S. in earnest in 1990. By 2015, twenty-three of the fastest-growing chronic diseases were conditions that Dr. Glaser had identified in 1971 as risks from radiofrequency radiation (see table on opposite page). Had regulators listened, we certainly wouldn’t have as large a chronic disease epidemic as we do today. Other factors certainly contribute to chronic illness, but the weight of the evidence is overwhelming that radiofrequency radiation exposure adds to the risk of most or all of these diseases.

From 1971 on, regulators from the FCC and FDA have turned a blind eye to the damning evidence in the U.S. Navy study and to subsequent U.S. government-funded studies, also ignoring the large and still growing body of research from around the world showing risk. Regulators have appeared to be more interested in advancing the commercial interests of the telecommunications industry than doing their jobs to protect public health. Their inaction adds to the dangerously false sense of safety that many still have today.

In 2015, the Edmond & Lily Safra Center for Ethics at Harvard University published a report titled *Captured Agency: How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates*,¹⁹ detailing the regulatory failure. Results of a poll conducted by the Safra Research Lab on Institutional Corruption, included in the report, showed that most people would make different technology choices if aware of the risks of wireless radiation.

The poll indicated that with adequate risk

U.S. Navy Study Predicted Today's 23 Fast-Growing Chronic Diseases – in 1971

Fast-Growing Conditions	Growth Rate 1990-2015	Reported Cases 1990-2015	Similar Biological Effects Cited in Navy Study in 1971
ADHD	139%	5,312,000	Lack of concentration
Anxiety	104%	40,000,000	Anxiety, Increased irritability
Asthma	142%	28,500,000	Increased blood histamine content
Autism	2,094%	4,664,280	Altered fetal development, Alteration in bio currents of the cerebral cortex, Structural changes in cerebral cortex
Cataracts	480%	20,500,000	Cataracts
Chronic Fatigue	11,027%	8,077,200	Fatigue, Memory loss, Lack of concentration, Headaches, Sleeplessness, Depression
Depression	280%	20,304,560	Depression
Diabetes	305%	29,100,000	Blood glucose concentration
Erectile Dysfunction	150%	18,000,000	Impotence, Hypogonadism
Fibromyalgia	7,727%	6,346	Fatigue, Memory loss, Concentration, Headaches, Sleep disorders, Depression
Hypertension	223%	92,799,900	Hypertension
Hypothyroidism	702%	¹⁵	Thyroid enlargement
Insomnia	123%	48,396,250	Insomnia
Leukemia	588%	327,520	Leukopenia, Chromosome aberrations, mutations, Neoplastic diseases, tumors
Lupus	787%	563,542	Fatigue, Memory loss, Lack of Concentration, Headaches, Sleeplessness, Depression
Melanoma	145%	996,587	Chromosome aberrations, mutations, Neoplastic diseases, tumors
Sleep insufficiency	165%	100,825,520	Sleeplessness, Insomnia, Circadian Rhythms
Squamous Cell Cancer	177%	322,762	Chromosome aberrations, mutations, Neoplastic diseases, tumors
Stroke	262%	6,800,000	Thrombosis (blood clots)
Thyroid Dysfunction	233%	20,000,000	Thyroid enlargement
Heart Disease	--	125,100,000	Myocardial necrosis, Cholesterol and lipid changes; EKG changes; Vagomimetic action of the heart; Alteration of the heart rhythm
Autoimmune Disease *	221%	24,114,643	Changes in Oxidative processes
Celiac Disease	1,111%	60,000,000	Gastrointestinal disorders

Total Incidence of 23 chronic diseases (2015). Each was predicted by the U.S. Navy study in 1971.

549,314,860

information, consumers would likely take action to reduce wireless use, restore landlines and protect children, of course with potentially significant economic consequences for all related industries.²⁰

TIME FOR CONCERTED ACTION

Many of us have felt angry and powerless, not knowing what to do as new small cell antennas go up on utility poles, street lamps, street signs and often just outside our homes. We rationalize, wanting to believe that the smaller antennas must be less dangerous, but nothing could be further from the truth. The antennas may be less obvious than cell towers, but they are still extremely powerful, employing a wider range of frequencies—from 700 megahertz up to 90 gigahertz—and often simultaneously using several different bands. The new technology also has far more intensive modulation and pulsation, which can be just as damaging as the energy itself. The worst part is these antennas are much closer to people than before, and proximity increases the danger. Many families now have small cell antennas within mere feet of their residences, pointing tight beams directly through bedroom windows.

With wireless radiation becoming increasingly hard to escape, it is making life extremely difficult for some people. Students in high-radiation classrooms, people in communal office settings and people near cell towers often have difficulty thinking well. Some people must head to the hills or sleep in cars to get a good night's sleep. People affected in these ways currently may account for a small percentage of the population, but surveys show that they number in the millions, and with each added exposure and new generation of technology, the

number with symptoms gets higher and higher.

In New York City today, thousands of high-powered, thirty-two-foot tall jumbo cell towers are being installed on sidewalks.²¹ The towers contain multiple tiers of antennas beaming into second- and third-floor windows. After my fifteen years of research on wireless risks, the installation of these jumbo cell towers in close proximity to human beings literally looks like murder. In New Jersey, battles are ongoing over thirty-five-foot cell towers planned along the beautiful Jersey Shore beaches.²²

Companies have placed antennas in bell towers, church steeples, on top of apartment buildings and water towers, and have even concealed them in the elevator shafts of high-rise buildings, impacting the health of people living in adjacent apartments without their knowledge.

Whereas wireless radiation may be invisible, cell towers and large antenna farms are not. Most of us can't help but notice the ever-increasing aesthetic blight in our midst from this industrial infrastructure. The sight of antennas disguised as trees or cell towers on school property or antennas on hospital roofs—a pervasive visual infrastructure that is the antithesis of health and healing—is offensive.

Ron Fleming, chairman emeritus of Scenic America²³ and president of the Townscape Institute,²⁴ an award-winning public interest planning organization focused on “conservation and visual enhancement of the built environments,” has discussed the visual impact of cell towers and antennas. Fleming says, “It is essential we acknowledge that the aesthetics of an environment matters. Beauty matters. Architecture matters. Harmonic environments matter. Environments supportive of communities matter. Peace within our soul matters. All support biology and our outlook on life. The aesthetic blight in America today, including the ever-increasing number of cell towers and antennas, impacts us all. I very much support efforts to restore local control over this unsightly infrastructure.”

A RUDE AWAKENING

Since I began my focus on this public health issue, hundreds of new activist groups focused on wireless risks have sprung up in communities all across the country and the world. For almost two decades, these groups have educated the public about wireless risks and about various ways to minimize risks. Whole industries have sprung up to help people, selling meters to assess exposures, shielding paints, protective fabrics and more. Enrollment in the Building Biology Institute's educational and certification programs has ballooned,²⁵ as people seek the technical knowledge to measure radiation levels and serve their communities. At some public libraries, library patrons can even check out a meter on loan.

Despite tremendous interest in the subject of wireless radiation, local communities attempting to fight cell towers and antennas have faced the rude awakening that it is almost impossible to succeed, at least on health or environmental grounds, unless the community has enacted well-drafted protective ordinances. This is because, just prior to President Clinton's signature, lobbyists for the telecommunications industry inserted language in the Telecommunications Act of 1996 (Section 704), that removed the rights of state and local governments to regulate the siting of towers and antennas on health or environmental grounds.²⁶

The federal preemption in Section 704 served an important purpose for the telecom industry. It facilitated rapid, expedited deployment of cell towers and antennas across the country with little resistance, while leaving Americans uninformed about the dangers. It also led courts to dismiss private lawsuits seeking relief from related personal injuries and property invasions, such as health effects, environmental impacts, aesthetic blight, property devaluation, temporary housing needs and relocation costs.

According to Scott McCollough, Esq., chief litigator for the EMR & Wireless Program at Children's Health Defense (CHD),²⁷ “The FCC has authorized the activity, so individual relief would ‘conflict’ with the purposes and objectives underlying the FCC's rules. The result is injured individuals have been deprived of their Constitutional rights and left with no recourse except to relocate, at their own expense, or to submit to ongoing exposure. We contend the FCC does not have the power to issue a license to kill and maim and destroy people's right to object to personal and property invasions of this sort.”

Section 704 has also tied the hands of local authorities who would otherwise restrict cell tower and antenna deployment too close to homes and schools, in recreational areas and near flora and fauna and vulnerable ecosystems.



ises,” not cell towers or small cells. We must protect biological life in our larger home—the environment—as well.

In ancient Egypt (~2925 BC), there were said to be forty-two questions asked of one’s soul at death by forty-two judges. The ethical principles embedded in the questions were thought fundamental to becoming a fully realized human being and to maintaining order and justice. In this self-inquiry process, one looked honestly at one’s relationship to life, taking responsibility for where one had fallen short. The first question asked of one’s soul was, “Hast thou treated thy body wisely and considerately?” while the fortieth question inquired about one’s relationship with the natural world: “Hast thou remembered the plants. . . and quenched their thirst and tended them so that they flourished?”

As a society, it would behoove us to begin a similar self-inquiry process, examining the relationship we have with ourselves and with the planetary biological systems around us. Through expanded consciousness, we may come to better appreciate the harm that has been inflicted by electromagnetic fields and become sincerely committed to correcting our present unconscious and destructive trajectory. ☯☯

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Reading Between the Lines

By Merinda Teller

A Look at Tattoos and Toxicity

If archaeologists are interpreting the evidence from mummies, stone carvings and other artifacts correctly, the relationship of human beings with the practice of tattooing may date at least as far back as 3300 BC.¹ However, the current Western fascination with tattooing as a no-holds-barred form of “self-expression”—what one might call a sort of “tattoo-palooza”—may be a practice without historical precedent. Beauty blogs openly celebrate the fact that tattoos are “everywhere these days,” happily noting, “it seems that everyone is getting inked.”²

Who is “everyone,” exactly? In the U.S., a 2023 Pew Research Center survey of adults found that one-third of respondents reported at least one tattoo, with the phenomenon trending more female than male (38 vs. 27 percent) and younger.³ Over half of women under age fifty reported tattoos—56 percent in the eighteen to twenty-nine age group and 53 percent of those thirty to forty-nine—and one-fifth of currently unadorned men and women under age thirty reported being “very” or “extremely” likely to get a tattoo in the future. By race and ethnicity, a third or more of Whites, Hispanics and Blacks had one or more tattoos, with Asians (14 percent) apparently being somewhat less tattoo-inclined. Those with a high school or less education and lower incomes reported tattooing themselves at roughly twice the rate (39 to 43 percent) of those with postgraduate degrees and higher incomes (21 percent).

The results of a Dalia Research survey conducted in 2018 suggest that the Pew study may even have underestimated U.S. tattoo prevalence.⁴ At 46 percent, Dalia ranked the U.S. third among countries whose residents have at least one tattoo, just behind top-ranked Italy (48 percent) and Sweden (47 percent). Other countries in the top twelve included (in descending order) Australia, Argentina, Spain, Denmark, United Kingdom—all at 40 percent

or higher—and 35-37 percent of residents in Brazil, France, Germany and Greece.

SOME COLORFUL TATTOO HISTORY

Tattoo scholars (yes, there is such a thing) credit explorer Captain James Cook and British aristocrat Joseph Banks (Cook’s natural sciences partner on the voyage and later the decades-long president of the Royal Society), with introducing the word “tattoo” (as well as, ironically, the word “taboo”⁵) into the English language following their eighteenth-century travels (1768–1771), which included a sojourn in Polynesia.^{2,6} One account (likely apocryphal) suggests that the word *tatau* is onomatopoeic, composed of “*tat*” (referring to “tapping the tattooing instrument into the skin”) and “*au*” (“the cry of pain from the person being tattooed”)⁷ Prior to the introduction of “tattoo,” other words used to refer to the practice included “pricked,” “marked,” “engraved,” “decorated,” “punctured,” “stained,” “embroidered” and the French *piquer* or *piquage*—but apparently “tattoo” caught on as none of these other terms had.⁷

Banks wrote in disbelief, “What can be sufficient inducement to suffer so much pain is difficult to say,” speculating that only “superstition” could be “a sufficient cause for so apparently absurd a custom.”⁷ He elaborated on the painful aspects of the procedure after observing the traumatic tattooing of a twelve-year-old girl’s buttocks:

“[I]t provd. . . a most painfull one. It was done with a large instrument about 2 inches long containing about 30 teeth, every stroke of this hundreds of which were made in a minute drew blood. The patient bore this for about one-fourth of an hour with most stoical resolution; by that time however the pain began to operate too stron[g]ly to be peacably endurd, she began to complain and soon burst out into loud lamentations and would fain have persuaded the operator to cease; she was however held down by two women who sometimes scolded, sometimes beat, and at others coaxd her.”⁸

The Cook voyage is reputed to have “changed the course of tattoo history” not just linguistically but in other ways as well. In addition to bringing back detailed records and drawings of the tattoo traditions encountered, Banks abducted a tattooed Polynesian to display him to the English court,⁹ and some members of the crew arrived tattooed themselves.⁷ Reportedly, this launched a new fashion trend among the royals and nobility.⁹ In the nineteenth century, the future King Edward VII and the future King George V both got tattoos, and, late that century, the first tattoo parlor opened on London’s famous high-fashion Jermyn Street.^{8,10}

TATTOO SEMIOTICS OVER TIME

Historically, the rationale for tattoos and the meanings they communicate have varied widely. Historians believe that ancient Arctic and Egyptian peoples, for example, placed intricate tattoos on women's thighs to safeguard mother and child during delivery¹¹ and give newborns something pleasing to look at "as they slid from the womb."¹² However, many groups, such as the ancient Greeks and Romans, used tattooing for less uplifting purposes, viewing it as a method of "labeling"¹³ and penalizing society's outcasts—the wide-ranging category of "outcasts" included "captives, slaves, criminals, deserters and prisoners of war."¹⁴ In ancient China, too, engraving words on a person's face became a widespread form of punishment from the Western Zhou period on (ca. 1056–771 BC).¹⁵

When we fast-forward to twentieth- and twenty-first-century Western society, it is obvious that tattooing has been undergoing significant sociocultural normalization, helped along by visible and incessant promotion on the part of athletes, celebrities and fashionistas. This prompted *Forbes*, in 2023, to write about the "more commonplace acceptance of tattoos in churches, schools and the workplace":

"Companies including Disney, UPS and Bank of America have relaxed rules surrounding visible tattoos, and stigma around the permanent markings has largely faded

in many industries. In 2020, the American Red Cross relaxed its donor eligibility criteria to make it easier for tattooed people to donate blood. The U.S. Army in 2022 eased its restrictions by cutting processing times for new recruits with tattoos and permitting current soldiers to have them in more places than previously allowed."¹⁶

Among Pew's survey respondents, the most common reasons named for getting one or more tattoos were far removed from criminality or outcast status, having more to do with remembrance, political signaling and, in our age of alleged narcissism,¹⁷ appearance. Nearly seven in ten respondents stated that their reason for being tattooed was "to remember or honor someone or something," while the two other most common reasons were "to make a statement about what I believe" and "to improve my personal appearance."³

As social acceptability takes ever greater hold and society elevates the most talented tattooists—one enthusiast, for example, describes "Top 10 Tattoo Artists That Make Me Want to Cover My Skin in Ink"¹⁸—tattoos have become so popular that the practice has even hit the halls of Congress.¹⁹ To bond with her eighteen-year-old granddaughter, Connecticut Rep. Rosa DeLauro, in 2024, had her arm tattooed with a rose at the ripe old age of eighty. That same year, Colorado Rep. Lauren Boebert unashamedly made headlines after posting on social media a bikini-clad picture of herself displaying a tattoo covering a major portion of her torso.²⁰

"GENERALLY INVOLVES SOME PAIN"

A New York tattooer patented the world's first electric tattoo machine in 1891, a motorized device not majorly different in design from some of the "tattoo guns" in use nowadays.²¹ Today's four-step process²² relies on different-size needles that attach to the hand-held "tattoo gun" (which can produce from fifty to three thousand up-and-down rotations per minute and regulates the flow of ink):

SHIFTING MEANINGS, USES AND POLITICS

Perhaps no country illustrates the shifting meanings, uses and politics of tattoos better than Japan. Historians believe that in ancient Japan, tattooing started off as a means of communicating social class or conferring spiritual protection.⁵⁵ In some locations, islanders appear to have used hand tattoos to show that a woman was married.⁵⁶ Around the seventh century, however, the practice seems to have entered into a centuries-long period of official disfavor,⁵⁷ and written records started to document its punitive use to brand criminals with a "permanent mark of shame."⁵⁸

In the Edo period (1600–1868), Japanese tattooing experienced an interesting resurgence, evolving into what fans describe as a "vibrant, narrative-driven art form."⁵⁷ Branded individuals started transforming their markings into "body suit" tattoos called *irezumi*, and woodblock carvers began to lend their "engraving expertise," becoming tattoo artists.⁵⁸ Other subgroups, ranging from courtesans to men in certain trades to kabuki actors, took advantage of tattooists' growing sophistication. For its part, however, the ruling warrior class consistently rejected tattooing due to Confucian prohibitions about "causing injury to one's own body."⁵⁶

By 1872, Japanese rulers wanted to present a "civilized, strong appearance" to Western powers and decided to ban tattoos, but the *yakuza* organized crime syndicate kept the practice going, using tattoos to signify membership (not unlike gangland tattooing in the U.S. today), and in the process, cementing a strong cultural association in that country between tattoos and criminality. Ironically, when General MacArthur's occupying forces lifted Japan's tattoo ban in 1948, it reinforced the general public's negative perceptions of tattoos: "Having the ban lifted by Americans led many Japanese to resent the practice even more."⁵⁵

1. The artist outlines the design on the skin with a stencil, sharpie or markers.
2. Next comes “the fun part”: “The artist will dip the needle into the ink and start puncturing the skin.”²² The needle then “quickly goes in and out of the skin, leaving a trail of ink,” and the artist continues until the tattoo is complete.
3. The third step is to add shadows and shading, using a thicker needle, “to create depth and dimension.”
4. Finally, reverting to a thinner needle, the artist adds color, progressing from the lightest colors to darker ones.

Is “the fun part” actually “fun”? According to *Healthline*, which helpfully supplies a “tattoo pain chart,” getting a tattoo “generally involves some pain,” with pain levels varying by location on the body and “personal tolerance”; areas “with little fat, many nerve endings, or thin skin [are] more likely to hurt.”²³ Areas where pain can be “high to severe” include the skull, neck and spine; rib cage; areola and nipple; armpit and inner bicep; inner or outer elbow; wrist, palm or fingers; stomach; groin and inner thighs; kneecap or behind the knees; shin; ankle, foot or toes.²³ *Healthline* also explains that recipients may experience more than one type of pain:

- Dull or background pain (which can “periodically change or intensify”)
- Vibrating pain (“especially if the needle moves quickly”)
- Burning pain (caused by “the repeated trauma resulting from a tattoo needle piercing your skin in the same place”)
- Scratching pain (“like a cat dragging its claws across your skin”)
- Sharp or stinging pain (like “many tiny bee stings”)

The target zone for the ink is the second layer of skin, the dermis (about 1.5 to 2 millimeters beneath the skin’s surface), where collagen and elastin fibers are supposed to “help anchor the ink in place.”²² However, tattoo sites warn, if an inexperienced tattooist mistakenly goes too deep into the next layer of skin, it “can lead to excessive bleeding, scarring, and prolonged healing times,” as well as a “blurry or ‘blown

out’ appearance.”²⁴ Mastering needle depth, apparently, is a skill that only comes with “time and experience.”²⁴ (Tattoo websites do not discuss the guinea pig clients who unknowingly help tattooists acquire this expertise!)

THE INKS

Individuals who choose to get tattooed often justify their body art decision with the “people-have-always-done-it” argument.²⁵ Few, however, appear to be paying attention to the risks of the newfangled inks and needles that make up the contemporary tattooist’s toolkit—materials strikingly different from those that nature supplied before the advent of the synthetic/industrial era. Pacific Islanders’ traditional tools and pigments, for example, featured a “handled comb made of albatross, frigate bird, or bat-wing bone” (used to “etch lines and figures into the skin”), with the pigment created from a mixture of soot and a botanical oil.²⁶ In the Philippines, needles made from “wood, horn, bone, ivory, metal, bamboo, or citrus thorns. . . created wounds on the skin that were then rubbed with the ink made from soot or ashes mixed with water, oil, plant extracts (like sugarcane juice), or even pig bile.”²⁷ When tattooists moved beyond soot- and charcoal-derived black to other colors, they created reds, browns and yellows “using mostly minerals along with plants and animal parts.”²⁸

The historical record seems to be mostly silent on whether and how often these nature-derived materials may have caused trauma to the skin or body. However, a commenter on Reddit hypothesizes that the freshly made charcoal used for most ancient pigments would have been “initially sterile” as well as “anti-bacterial and mildly antiseptic,” which could have helped “with both the cleanliness of the tools and the wounds themselves.”²⁹

Nowadays, pigments are not only synthetic but manufactured by large corporations making colors that are not tattoo-industry-specific. As researcher Dr. John Swierk explains, “Surprisingly, no dye shop makes pigment specific for tattoo ink. Big companies manufacture pigments for everything, such as paint and textiles. These same pigments are used in tattoo inks.”³⁰ This may be why some researchers have reported finding “exotic” contaminants in

Nowadays, pigments are not only synthetic but manufactured by large corporations making colors that are not tattoo-industry-specific.

Azo pigments are widely used synthetic colorants said to be benign when chemically “intact,” but which can degrade into suspected carcinogens.

tattoo ink such as Texanol, a waterborne paint ingredient.³¹ In addition to the pigments, tattoo inks can contain “dispersants (polymers and surfactants), solvents (water and/or organic solvents), polymeric resins for binding, antifoaming agents (such as fatty oils), wetting agents (surfactants), rheological modifiers to control viscosity, pH modifiers, and biocides to prevent microbiological growth.”³¹

On the topic of contaminants, Swierk’s research team found that corporate manufacturers are consistently failing to disclose the presence of “potentially concerning additives” in their inks.³² In a study published in 2024,^{32,33} Swierk’s lab analyzed fifty-four tattoo inks from nine manufacturers and reported the following disturbing findings:

- Forty-five inks contained unlisted additives (“adulterants”) and/or unlisted pigments.
- Over half contained unlisted polyethylene glycol (PEG), a compound associated with severe allergic reactions as well as kidney failure.
- Fifteen inks contained unlisted propylene glycol, also linked to dangerous allergic reactions.
- Two of the unlisted preservatives were BHT (known to sometimes act as a tumor promoter) and 2-phenoxyethanol, a preservative with “conflicting” safety data.³⁴

Swierk also expressed concern that twenty-three of the inks they analyzed featured an azo-containing dye.³⁰ Azo pigments (used to create reds, yellows and oranges) are widely used synthetic colorants said to be benign when

chemically “intact,” but which can degrade into suspected carcinogens. This phenomenon, called “reductive cleavage,” refers to the breaking of a chemical bond via a “reducing agent.” In organic chemistry experiments, the reducing agent might be a dissolving metal, an electric current or hydrogen gas.³⁵ In the human gastrointestinal tract (following ingestion of azo dyes in food), the intestinal microbiota are the agent creating the carcinogenic metabolites.³⁶ Inside human skin, the cleavage trigger is . . . ultraviolet light, including sunlight.³⁰

A 2022 article in *Toxicology and Industrial Health* called attention to the cleavage problem:

“Tattooists. . . place tattoo ink inside the skin surface and unintentionally introduce a large number of unknown ingredients. These ingredients include polycyclic aromatic hydrocarbons (PAHs), heavy metals, and primary aromatic amines (PAAs), which are either unintentionally introduced along with the ink or produced inside the skin by different types of processes for example cleavage, metabolism and photodecomposition. . . . [T]he various ingredients of tattoo inks, their metabolic fate inside human skin and unintentionally added impurities. . . could pose toxicological risk to human health.”³⁷

The heavy metals mentioned in the preceding quote are also a core component of tattoo inks. A 2022 study explains that “cobalt (Co), cadmium, and mercury are considered bases for the colors green, blue, yellow, and red,” and metals such as aluminum and cadmium are used

TATTOO INKS OF YORE

An article titled “Tattoo Ink Throughout Time”¹¹ describes how some populations and regions made tattoo inks in centuries past:

- Aetius, a Roman scholar and physician, recorded a recipe that used “Egyptian pine bark, corroded bronze mixed with vinegar, gall nut (a type of insect larvae) and vitriol.”
- Celtic and Pict warriors made a blue dye from the leaves of woad (*isatis tinctoria*) by drying and then boiling (twice) the leaves of the flowering plant to make a “thick viscous paste.”
- In the Japanese city of Nara, they burned pine branches with sesame oil, collected soot and kneaded the soot with “bone glue” to make a dough dried in small blocks for several months to years. To make the ink, they then shaved the blocks and mixed the shavings with water.
- Sailors—one of the most storied subgroups ever to engage in tattooing—reportedly have used whatever was at hand, including gunpowder and urine.

“to obtain different tones and brightness.”³⁸ The concerned authors of the study urge greater awareness of the risks of “lifetime exposure” to these and other ingredients, lamenting the fact that because “the different composition, chemical structures, and destiny of the inks in the body are not known exactly, it is difficult to evaluate their effects on health.”³⁸

DESTINIES UNKNOWN

Tattoo inks suspend their pigment in a carrier solution,³⁹ and this fact prompted the authors of a 2024 publication to explain the implications regarding the “destiny of inks in the body.” After injection of “about 14.36 mg of ink. . . per cm² of skin, at a depth of 1-3 mm,” various cells (neutrophils, fibroblasts, macrophages, dendritic cells) “internalize” the pigment; however, tattoo recipients may not be aware that anywhere from 60 to 90 percent of the pigment is then “transported to the lymph nodes via the lymphatic system and to other organs, such as the liver, spleen, and lung, through blood.”⁴⁰ The authors pointing out this little-known fact cite the need for longitudinal studies “to identify the cause-and-effect relationship between tattoo pigments and disorders in the lymph nodes and organs in which they are retained for life.”⁴⁰ Stated another way, “tattoo inks are not as stable in the skin as one might think.”⁴¹

One reason for this instability is the growing technological reliance on nanoparticles. Black remains the most common tattoo color, but in a far cry from the long-ago use of soot, modern black inks can contain anywhere from five to more than fifty components,⁴² including carbon black nanoparticles. Because they are “ultramicroscopic,” these nanoparticles can “penetrate through skin layers into underlying blood vessels and then travel with the bloodstream,” entering organs and other tissues as well as possibly inducing toxic brain effects or nerve damage.⁴³ Scientists suspect that nanomaterials are particularly likely to accumulate in the liver and spleen.⁴¹

Asking, “What Do People Really Know about the Medical Risks of Body Ink?” the authors of a 2018 article in the *Journal of Clinical and Aesthetic Dermatology* outlined other risks as well.⁴³ Serious complications include

allergic and hypersensitivity reactions to tattoo pigments, the formation of lumps that “can occur even years after obtaining the tattoo,” skin pigmentation disorders, inflammation and scarring.⁴³ The FDA, which only started issuing guidance to the tattoo industry in late October 2024,⁴⁴ acknowledges that it has received reports of adverse reactions to tattoo inks not just immediately after the procedure but also “years later.”⁴⁵

Intentional or “unintentional” ingredients such as the PAHs, PAAs and heavy metals mentioned in the preceding section are all associated with “sensitizing reactions” as well as being potentially immunotoxic and carcinogenic.⁴⁶ German researchers have found that when inks contain PAHs (which they warn “possibly stay lifelong in skin”), exposure to ultraviolet radiation decreases mitochondrial activity in the cells and compromises skin integrity.⁴⁷

Nor is it just the inks that can cause problems. Even when tattooists are proficient at reaching the “just right” depth (neither too shallow nor too deep), dermatologists caution that the needles cause abrasion that comes with risks because “the needles contain large amounts of sensitizing elements such as nickel and chromium.”⁴⁶ Tattoo sites also tell tattoo artists to avoid “overworking the skin,” which can cause scarring and “excessive” irritation.⁴⁸ This apparently requires mastering other “just right” techniques such as applying the right amount of pressure, choosing the right needles and taking the time needed.

REGRET AND REMOVAL

In an article examining the tattoo market, *Forbes* reported, “The increasing popularity of tattoos has led to a boom in two industries—those who give them and those who remove them.”¹⁶ The 2023 Pew survey found that one-fourth of respondents regretted their tattoos.³ A study that looked at tattoo regret (titled “Think Before You Ink”), found that factors such as “getting one because of peer pressure” or “being impaired when getting” were predictors of later regret, as were experiencing an adverse event or having a tattoo on a visible location such as the face, neck, hands, wrists or fingers.⁴⁹ Another study of tattoo regret found that two of the most

Anywhere from 60 to 90 percent of the pigment is “transported to the lymph nodes via the lymphatic system and to other organs, such as the liver, spleen, and lung, through blood.”

common reasons for regret were making the decision on impulse or doing it to “look cool.”⁵⁰

Unfortunately, for those whose regret spurs them to take action, tattoo “removal” turns out to be somewhat of a misnomer, masking a pulsed laser process “more painful than tattooing” that does not actually remove anything:

“Laser treatment does not remove the tattoo ink out of the body; rather, the relatively large pigments of the ink are broken down into much smaller particles, which are transported through the body and stored in the lymph nodes or other tissues. The ink does not ever really leave the body, though possibly a portion is excreted via the liver.”⁵³

In an article titled “Tattoo Removal: 14 Things I Wish I Had Known Before Getting It,” a writer for *Glamour* notes that “complete tattoo removal takes a minimum of two and a half years on average”—because the body needs about three months between each session to recover from the laser assault.⁵¹ Describing the forty-five-minute sessions, the *Glamour* author writes, “[W]e take ‘before’ photos, clean the areas, inject them with lidocaine for freezing, laser them, ice them, and then bandage them. Oh, and sometimes a weird side effect happens where I taste metal when the laser hits my skin.” (The author explains that this is a common sensation when laser makes contact with lidocaine.) In addition, she comments, those contemplating removal should know that “the skin that is left might not be flawless.” Another person has more bluntly stated, “First thing to realize is that your tattooed skin will never, ever be able to look normal again, as though nothing was done to it.”⁵²

THINKING CAREFULLY

One of the latest tattooing trends to hit the marketplace is “permanent makeup.” Just like it sounds, permanent makeup (also called micropigmentation) uses tattooing techniques to “replicate the appearance of traditional makeup, such as for eye liner, eyebrows, and lip color.”⁵³ Cleveland Clinic’s webpage about micropigmentation notes that the procedure can be “especially helpful if you are a person who

wants to look their best while avoiding the physical challenges of applying makeup” but includes a special caution to young people to “think carefully,” because “What’s ‘hot’ in beauty fashion today, may not be tomorrow’s trend and you don’t want to be stuck with an undesirable look.”⁵⁴

Others advising young people to “think carefully” have approached the issue from a religious perspective. Offering a “Catholic perspective on body art,” a deacon in the Archdiocese of Portland, Oregon, considers tattoos a form of “physical graffiti”²⁵ and cites St. Paul’s admonition in 1 Corinthians 6: “Do you not know that your body is a temple of the Holy Spirit within you, which you have from God?”

Regardless of one’s tattoo cosmology, the number of unknowns surrounding modern-day tattooing—whether pertaining to adverse events, undisclosed ingredients, sneaky nanoparticles or the phenomenon of regret—suggest that “thinking before you ink” is not such bad advice. 

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Homeopathy Journal

ALUMINA IN HOMEOPATHY

By Anke Zimmermann, BSc, FCAH

Disclaimer: None of the information in this article is intended to diagnose, treat or prevent any medical condition. It is intended for educational purposes only. If you suffer from a health condition, please consult with a qualified health care professional.

Some say we live in the Age of Aluminum.

Aluminum is the third most abundant element in the Earth's crust after oxygen and silicon. It is, however, never found in pure form naturally but only as bauxite, a type of rock made of aluminum-bearing minerals plus iron oxide and silica impurities.¹

For most of human history, pure aluminum was not available, as its production involves a complicated, multistep process which was developed only in the mid-to-late 1800s. Aluminum is lightweight, corrosion-resistant, very reactive and forms incredibly strong chemical bonds. These and other unique properties quickly made aluminum popular in countless industrial applications,² and its widespread use accelerated in the twentieth century.¹ From planes and satellites soaring overhead to the smartphones in our pockets, the antiperspirants in our armpits and the vaccines in our children's blood, aluminum is now everywhere.

Although we do not yet have a full picture of what the cumulative and long-term effects of all this exposure might be, we do know that aluminum has no beneficial functions in the biology of humans or animals, except for some deep-sea crustaceans who can incorporate aluminum into their exoskeletons, giving them superior strength to survive in these environments.^{3,4} Other than that, aluminum is toxic and can accumulate in bones, kidneys and brain tissue.

Aluminum has been linked to neurodegenerative diseases and dementia-like syndromes. Aluminum toxicity can interfere with normal motor neuron function, leading to poor coordination, tremors and unsteady walking.⁵⁻⁷ In the late 1960s and 1970s, it became apparent that patients on dialysis for kidney failure were accumulating high levels of aluminum from aluminum-containing phosphate binders used to control phosphate levels; this caused dialysis-related encephalopathy ("dialysis dementia"), a progressive condition, often fatal, marked by cognitive decline, dysphagia, apraxia and personality changes.⁸⁻¹¹ Other known effects of the medical use of aluminum include the constipation associated with aluminum-based antacids,¹² and the allergies and autoimmune diseases of all kinds caused by aluminum adjuvants in vaccines.^{11,13,14}

ALUMINUM IN ALZHEIMER'S DISEASE AND AUTISM

Professor Christopher Exley, a renowned British biologist and toxicologist, dedicated much of his career to studying the effects of

aluminum on living organisms. He became a passionate advocate for addressing the dangers of aluminum exposure after observing the devastating impact of acid rain. The rain's ability to dissolve aluminum from rocks and contaminate waterways led to significant harm to aquatic life, as the dissolved aluminum damaged fish gills, causing fatalities.

As a result of witnessing the fish dying, Exley began to study aluminum's effect on humans, especially regarding neurodegenerative diseases like Alzheimer's dementia and, later, autism.

After he and his research team at Keele University discovered high levels of aluminum in the brains of deceased persons with autism, he became convinced that there was a connection between autism and the aluminum adjuvants from vaccines.¹⁵

I have long been involved in helping children affected by autism, and one thing is obvious: many of these children show symptoms resembling dementia. Autism and dementia both involve significant cognitive and social difficulties. Those affected often seem confused and unaware of their environment and have poor memories, poor attention spans and poor executive function as well as communication difficulties. Some lose their speech altogether.

ALUMINA IN HOMEOPATHY

Homeopathy is founded on the principle that a substance capable of producing specific symptoms in a healthy individual can, in its homeopathic form, be used to treat similar symptoms in a sick person. In view of the many deleterious effects of aluminum on human beings, is it possible that the homeopathic remedy *Alumina* could be helpful?

The homeopathic remedy *Alumina* has an interesting history and was one of the approximately one hundred remedies that the great

founder of homeopathy, Samuel Hahnemann (1755–1843), “proved” and developed during his lifetime. A homeopathic “proving” is an experiment or trial conducted to discover the medicinal properties of a substance by observing the effects it has on healthy individuals when taken in small, potentized doses. These observations help to create a comprehensive profile of symptoms that the substance can potentially treat when administered to patients with similar symptoms.

Hahnemann practiced during the era of “heroic medicine.”¹⁶ In the eighteenth and nineteenth centuries, the “heroic” treatments popular among many medical practitioners involved extreme bloodletting, purging and sweating to relieve the body of bad “humors,”¹⁶ often instigated with the help of various toxic ingredients such as mercurial compounds. Hahnemann renounced this aggressive form of medical practice and instead set out to develop gentler methods of healing. In the process, he began to experiment with dilutions of the various commonly used medicinal substances of the day, which ultimately gave us the system of homeopathy.

Hahnemann’s idea for homeopathic *Alumina* likely originated from the common medicinal use of alum at the time. “Alum,” a general name for a group of double sulfates of aluminum and another metal, usually potassium or ammonium,

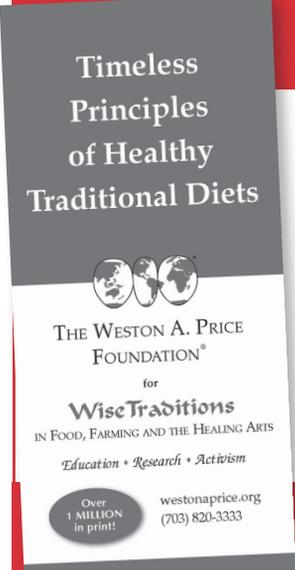
had a long history of medicinal use in many different cultures, ranging from ancient Egypt, China and India to Europe.¹⁷ It was known for its astringent and antiseptic properties, which made it useful for the treatment of sore throats, mouth ulcers, hemorrhoids and diarrhea, as well as for skin infections, acne and to halt bleeding from small wounds. Its drying properties also made it popular as an antiperspirant, a property still captured by commercial antiperspirants today.

Hahnemann conducted the first proving of *Alumina* and wrote about it from 1811 onward.¹⁸ The provers reported a variety of symptoms, including:

- Mental confusion and dullness
- Weak memory and difficulty focusing
- A sense of being spaced-out
- Disorientation and loss of identity
- Lack of initiative, tendency to avoid responsibility
- Irritability, especially with sensory overload
- Constipation, with hard dry stools
- Difficulties swallowing, especially potatoes
- Physical weakness and fatigue, particularly in the lower limbs
- Dry and tight skin
- A tendency to feel cold.

The homeopathic remedy *Alumina* has an interesting history.

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A history of aluminum exposure is not necessary for the successful use of the *Alumina* remedy, as emotional trauma can bring on an *Alumina*-type state as well.

Generations of homeopaths since Hahnemann have continued to expand on the provings, *Materia medica* and clinical findings related to *Alumina*.

HISTORICAL CASE EXAMPLES

Dr. Hahnemann saw a middle-aged man suffering from chronic constipation, with a full, distended abdomen but an inability to pass stool despite intense straining. In addition to the severe constipation, the patient exhibited mental sluggishness, a notable sense of indifference, lack of motivation and an overall fatigued state. According to Hahnemann's writings, after taking homeopathic *Alumina*, the patient was soon able to move his bowels again and reported a renewed sense of energy and mental sharpness.

German-born Dr. Constantine Hering (1800–1880),¹⁹ who after spending time in South America immigrated to the U.S. in 1833, is often described as the “father of American homeopathy.” In one of Hering's cases, a middle-aged woman consulted with him complaining of long-standing constipation, which had been resistant to conventional treatment. She could not pass any stool even though she felt fullness in her rectum. She also experienced exhaustion and mental sluggishness that made daily life challenging and caused her to feel overwhelmed and unable to complete even simple tasks. Hering administered *Alumina* 30C, and, in short order, her bowel function normalized, and her mental fatigue lifted.

Dr. James Tyler Kent (1849–1916) was another American forefather of homeopathy.²⁰ He described a case of a young woman suffering from mental fatigue and chronic constipation of many years standing. She experienced extreme difficulty passing stools and described her mental state as foggy and unmotivated. She also described feeling trapped in her own thoughts. Kent gave her *Alumina* 200C, which relieved all of her symptoms in a few weeks' time.

ALUMINA IN THE TWENTY-FIRST CENTURY

I see *Alumina*-type symptoms in my autism practice every day. Most children on the spectrum appear confused, spaced-out or dull,

have poor memories and often have problems with swallowing and constipation, very similar to the description of *Alumina*.

Although I certainly sometimes use *Alumina* to help these children, most of the time I (and many colleagues working in similar ways) use homeopathic remedies made from the vaccines received by children on the spectrum, the majority of which contain aluminum adjuvants. These homeopathic preparations contain the energetic information of the aluminum compounds as well as all the other ingredients in the vaccines. This can have dramatically positive effects on these children.

In my experience, vaccines are not the only contributing factors to autism. Modern children are exposed to a multitude of medical interventions, stressors and environmental toxins—starting in utero—all of which can add fuel to the fire of developmental disorders. However, constipation seems to be one of the earliest and most common signs of vaccine injury and is one of the most problematic symptoms in autism. Many children on the spectrum do not seem to feel the urge to empty their bowels, which could be an *Alumina*-type symptom.

Consider one of my autism kiddos, who was really struggling with constipation. This darling child came under my care just before she turned three. She had rapidly descended into autism after her twelve-month vaccines. She had been given four different shots, including the MMR and chickenpox vaccines, as well as two vaccines—Prevnar 13 (pneumococcal) and meningococcal—containing aluminum hydroxide as an adjuvant. She had previously received numerous other vaccines as well, many containing aluminum.

In short order after the twelve-month shots, she lost all eye contact, awareness and language; no longer responded to her name; wandered around aimlessly all day; and developed constipation, having a bowel movement only once every seven to ten days. This child had received many different remedies, including homeopathic preparations of the vaccines she had received, yet her bowels continued to be resistant until I gave *Alumina* 30C as needed for some time, which helped. I'm happy to report

that after two and a half years of homeopathic care, this child has fully recovered and is now a very bright, lively and communicative little star who amazes everyone!

I would also note that a history of aluminum exposure is not necessary for the successful use of the *Alumina* remedy, as emotional trauma can bring on an *Alumina*-type state as well, and especially suppression of a person's identity. Homeopath Rajan Sankaran has written that a child's individuality and identity may be broken down by constant criticism,²¹ leading to the potential need for *Alumina*.

POSSIBLE APPLICATIONS FOR ALUMINA

As always, it is important to remember that homeopathy does not treat conditions but rather helps to rebalance the vital force. Symptoms need to match the remedy profiles in the *Materia medica*. Nonetheless, given the rising use of aluminum, *Alumina* may need to be used more frequently in modern homeopathic practice. In essence, *Alumina* may be indicated in symptoms of neurological slowness to the point of paralysis, both physically and mentally. It is more often used in chronic, serious, degenerative states and may, therefore, have application in persons affected by symptoms of ataxia, Alzheimer's disease (and other dementias), autism, depersonalization, chronic fatigue syndrome, multiple sclerosis, Parkinson's disease, myopathies and severe constipation.

Overall, I believe Samuel Hahnemann would be glad to see that his introduction of *Alumina* in the early 1800s is helping us more than two hundred years later in the Age of Aluminum. 

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The Wise Traditions Pantry

THE HIDDEN SIDE OF “HEALTHY” FOODS: ANTINUTRIENTS, GUT HEALTH AND MY JOURNEY TO REAL NOURISHMENT

By Ron Bazar

What if the foods you think are helping you are actually hurting you? That was the unsettling question I had to face after decades of following what I believed was an ideal diet—a mostly vegan, macrobiotic diet based on all the “right” foods. For years, I avoided meat and dairy, embraced soy milk and tofu, ate tons of whole grains and beans and used seed oils and margarines instead of butter. I was convinced that I was on the cleanest path to health. Of course, I did not know much about proper food preparation as taught by the Weston A. Price Foundation (WAPF).

Then came the night when I couldn’t uri-

nate—not a drop—when I woke up to pee. I was in acute urinary retention. Suddenly, the diet I thought had been my salvation was in question. But it took me almost ten years to figure that out!

GUT HEALTH, MENTAL HEALTH—AND HIDDEN HAZARDS

Most people now know that gut health is vital—not just for digestion but for mental and emotional balance. What we eat doesn’t just shape our bodies; it influences how we think, feel and function.

I’ve been inspired by the Foundation’s work on traditional diets and ancestral wisdom. It has helped many people, including me, to move beyond industrial foods and dangerous diets and toward properly prepared, nutrient-dense real food. But even when we eat properly prepared whole foods, problems can persist. Why? The answer may lie in antinutrients.

Antinutrients are naturally occurring compounds in many plant-

TABLE 1. Antinutrients in Foods: A Quick Reference Chart

ANTINUTRIENT	FOUND IN	EFFECT ON NUTRIENTS	REDUCTION METHOD
PHYTATES (phytic acid)	Whole grains, legumes, nuts, seeds	Bind minerals like zinc, iron and calcium, reducing their bioavailability	Soaking, sprouting, fermenting
OXALATES (oxalic acid)	Spinach, beets, rhubarb, almonds, tea	Bind calcium and magnesium, may contribute to kidney stones or calcium deficiency	Boiling, pairing with calcium-rich foods
LECTINS	Raw legumes, grains, nightshades	Can damage gut lining, impair absorption	Cooking thoroughly, soaking, fermenting
TANNINS	Tea, coffee, legumes, grapes	Inhibit iron absorption, interfere with digestive enzymes	Soaking, limiting intake of iron-rich meals
SAPONINS	Legumes, quinoa	May damage intestinal cells, impair nutrient uptake	Rinsing, soaking, cooking
GLUCOSINOLATES	Broccoli, kale, cabbage, Brussels sprouts	Can interfere with iodine uptake (thyroid function)	Cooking (especially steaming)
PROTEASE INHIBITORS	Soybeans, legumes, potatoes	Inhibit protein-digesting enzymes	Cooking (boiling), fermenting
GOITROGENS	Soy, cruciferous vegetables	May affect thyroid hormone production	Cooking, moderate intake
SOLANINE	Green potatoes, eggplant, tomatoes	Can be toxic in high amounts	Avoid green/overripe produce
ISOFLAVONES	Soy products	May mimic estrogen, affecting hormone balance in excess	Fermentation may reduce levels

based foods (see Table 1). Their role in nature is to protect the plant from predators, but in our bodies, they can interfere with nutrient absorption, damage the gut lining and contribute to inflammation or food sensitivities.

In moderation, and when properly prepared, many antinutrient-containing foods are nutritious. However, overconsumption—especially in modern diets that rely heavily on grains, legumes and raw vegetables (see Table 2)—can lead to issues. Potential problems include mineral deficiencies (especially deficiencies in zinc, iron, calcium and magnesium); digestive issues such as bloating, gas or gut irritation; thyroid dysfunction (particularly with high intake of raw cruciferous vegetables); and kidney stones due to excess oxalate intake.

TRADITIONAL CULTURES KNEW BETTER

Many pundits extol the benefits of plant foods using scientific analysis of their nutrients but fail to take account of the detrimental effects of the antinutrients in them. The good news? The very practices promoted by WAPF—like fermenting, sourdough, soaking oatmeal or slow-cooking beans—are exactly what can

mitigate some of these concerns. The solution is not to avoid plant foods but to prepare them correctly. Traditional techniques like soaking, fermenting, cooking, sprouting or pickling deactivate many of these compounds.

The dietary practices of traditional societies around the world reflect a deep, intuitive knowledge of how to make plant-based foods safe and nourishing (see Table 3). Soaking and fermenting grains and legumes reduces phytates, lectins and tannins. Sprouting seeds and nuts enhances enzyme activity and nutrient bioavailability. Cooking (as opposed to consuming raw) deactivates lectins and saponins. Pairing high-oxalate foods with calcium-rich ones reduces oxalate absorption. And using healthy traditional fats like butter, ghee and olive oil slows carbohydrate absorption, supporting stable blood sugar and enhancing nutrient assimilation. In traditional cultures, these time-tested methods weren't just about flavor—they were vital to ensuring nutrient density and digestibility.

WHEN SUPERFOODS BECOME SUPER PROBLEMS

Members of the Weston A. Price community already emphasize nutrient-dense animal

The dietary practices of traditional societies around the world reflect a deep, intuitive knowledge of how to make plant-based foods safe and nourishing.

TABLE 2. Foods Highest in Antinutrients

FOOD	MAIN ANTINUTRIENTS	EFFECT
Soybeans	Phytates, lectins, trypsin inhibitors	Block mineral absorption and protein digestion
Legumes (especially kidney and black beans)	Lectins, phytates, saponins	Can cause digestive issues, reduce mineral uptake
Whole grains (wheat, oats, rye, barley)	Phytates, gluten, lectins	Bind to iron, zinc, calcium
Spinach and Swiss chard	Oxalates	Bind calcium and magnesium
Nuts and seeds (almonds, peanuts, flax)	Phytates, tannins	Reduce absorption of zinc, iron
Nightshades (tomatoes, potatoes, eggplant)	Lectins, solanine	Potential gut irritation, inflammation
Sorghum and millet	Tannins, phytates	Reduce protein and mineral bioavailability
Cassava (raw/poorly prepared)	Cyanogenic glycosides	Can release cyanide; must be properly prepared

Only one food came back as incompatible: homegrown, organic kale—the darling of health food blogs.

foods and animal fats, whole foods, raw dairy and properly prepared grains, nuts and beans. This dietary wisdom is an advantage. However, as modern exposure to environmental toxins and gut-disrupting medications (like antibiotics) increases, even the healthiest eaters may find that sensitivity to antinutrients rises. For those struggling with autoimmune conditions, thyroid issues or mineral deficiencies despite a “perfect” diet, antinutrients may be a hidden piece of the puzzle.

In my case, my health improved significantly after I transitioned to a Weston Price-inspired diet. Every few months, however, I would still get a urinary blockage, seemingly out of nowhere. It turned out that proper food preparation was not enough.

Bioenergetic testing is a method that assesses the compatibility of a food or supplement with your body’s energy field. (Think of it as an advanced form of muscle testing, but more nuanced and accurate.) Having learned to test myself, after one blockage, I tested every food I’d eaten that day. Only one food came back as incompatible: homegrown, organic kale—the darling of health food blogs. I couldn’t believe it! That was a profound moment for me. I realized that it doesn’t matter how “healthy” a food is perceived to be or even how well prepared or cooked it is—if it’s wrong for your body, it can do harm. I removed kale from my diet so as not to experience another nightmare.

Many functional practitioners recommend elimination diets, which can help but are slow and imprecise. You cut out a suspect food for weeks, reintroduce it and monitor symptoms. If the symptoms return, then you have found a culprit. This method can work, but it is neither fast nor easy.

Bioenergetic testing changed everything for me. It’s fast, precise and best of all, empowering. I found that I could test whole foods of all types, supplements and even dosages (such as how much is too much and even how many eggs to have for breakfast). It helped me to stop second-guessing myself and fine-tune my diet with confidence. I then began to see that other people might be stuck in similar situations—following all the best advice but still feeling unwell or triggered at times. Years ago, I wrote a short guide on bioenergetic testing in simple language and downloadable for free.

**THE BIG PICTURE:
REAL FOOD, PERSONALIZED**

The Weston A. Price Foundation offers a strong foundation: real food, prepared with traditional wisdom. That alone transforms lives and mitigates many of the effects of anti-nutrients. However, if you are still dealing with stubborn symptoms—especially gut-related—antinutrients may be sabotaging your recovery. This is where the GAPS diet can be a huge help, starting you off with non-reactive foods like short-cooked meat stocks and slowly building up your microbiome to deal with plant foods.

When it comes time to reintroduce new foods, the simple technique of testing biocompatibility may make it easier to take the next steps. We all need nutrient-dense, properly prepared foods, but we also need to ask, “Which of these real foods are right for me right now?” Understanding antinutrients can help in your healing journey, and bioenergetic testing can help you tweak your inputs. It helped me move from confusion and crisis to confidence and healing.

TABLE 3. How to Reduce Antinutrients

METHOD	EFFECTIVENESS
Soaking	Reduces phytates, tannins, some lectins
Sprouting/Germinating	Decreases phytates, increases nutrient bioavailability
Fermenting	Breaks down lectins and phytates
Cooking/Boiling	Reduces lectins, oxalates, trypsin inhibitors
Pressure Cooking	Especially effective for legumes and grains

BIO-ENERGETIC TESTING

Biocompatibility is the fit between your body's current state and any input—food, drink, supplement, preparation method, product or practice. An input is biocompatible when it strengthens or leaves you neutral; it's incompatible when it triggers subtle inflammation, fatigue, brain fog, flare-ups (digestive, skin, urinary), sleep disturbance or other “off” signals.

It is personal (what helps me can hinder you), context-dependent (season, stress, gut status), and dynamic (today's “yes” can become tomorrow's “no”). Dose and preparation matter.

How to assess biocompatibility? Use personal testing such as muscle testing or a pendulum to get a quick yes or no before you ingest, then test the dose, and re-test as your needs change. Pair that with careful attention to early body cues.

This is the lens I use throughout my work: the only thing that truly matters is whether an input is compatible for you right now. Antinutrients such as phytic acid in grains and legumes illustrate the point—they're not “bad”

in the abstract; their biocompatibility depends on the individual and the preparation method (soaking, sprouting, fermenting, pressure cooking, thermal processing, etc.), and it can shift over time.

As I finished writing this article, a wild deer came right up to my glass door and looked in at me with her huge brown eyes. She was looking for some more of the potato peelings that I had left out the night before. Her stomach, but not ours, can easily digest them. Her heaven may be our hell. Watch out for antinutrients! And to your health! 

Ron Bazar writes about practical, traditional nutrition drawn from his own path—starting with macrobiotics in 1974 to heal chronic stomach issues. Learning firsthand how antinutrients and a long-term vegan approach can backfire, he turned to Weston A. Price principles and bioenergetic testing to restore health. A Harvard MBA and long-time entrepreneur, Ron grows much of his own produce on a small island off the B.C. coast and is the author of several natural-health books on Amazon. Ron's book on Personal Testing Via Body-Energetics can be accessed at drive.google.com/file/d/1KnzVtPMYyomBuzsi0zZaZfS51ZzScpfZ/view?usp=sharing

HOW TO REDUCE ANTINUTRIENTS IN SPECIFIC FOODS

Even though antinutrients are naturally occurring, there are proven traditional methods to reduce or neutralize them—often practiced across cultures for centuries. Below, I list some of the options.

LEGUMES (beans, lentils, chickpeas)

- Soak for eight to twelve hours and discard the soaking water.
- Cook thoroughly (boiling).
- Sprout for two to three days to reduce phytates and lectins.
- Ferment (e.g., tempeh, miso) for best results.

WHOLE GRAINS (wheat, oats, brown rice)

- Soak with a bit of lemon juice or vinegar to activate enzymes.
- Ferment (e.g., sourdough bread) to reduce phytates.
- Sprout grains to improve mineral availability.

NUTS AND SEEDS

- Soak overnight (especially almonds, walnuts, sunflower seeds).
- Dry or lightly roast after soaking.
- Sprouting further reduces antinutrient content.

HIGH-OXALATE FOODS (spinach, Swiss chard, beet greens)

- Boil and discard the cooking water to reduce oxalate levels.
- Pair with calcium-rich foods to bind oxalates in the gut.

SOY PRODUCTS

- Choose fermented forms (tempeh, natto, miso).
- Cook raw soybeans thoroughly to neutralize inhibitors.

CRUCIFEROUS VEGETABLES (broccoli, kale, etc.)

- Steam or lightly cook to reduce goitrogens and glucosinolates.
- Avoid them if you have thyroid issues—moderation is key.

Wise Traditions Podcast Interview

INTERVIEW WITH NINA TEICHOLZ
THE U.S. DIETARY GUIDELINES



Hilda Labrada Gore is the host and producer of the Wise Traditions podcast for the Weston A. Price Foundation. Hilda is a certified integrative nutrition health coach who has traveled extensively—to Mongolia, Peru, Ethiopia, Ecuador, Kenya, Australia and many other countries—to continue uncovering ancient health practices. Besides WAPF podcast interviews, she shares information from experts, experiences and epic adventures on her Holistic Hilda YouTube channel, social media platforms and in person as a speaker at conferences and retreats. Hilda has energy to spare in part because she keeps her feet on the ground and her face to the sun.

HILDA LABRADA GORE: The U.S. dietary guidelines are failing Americans, who have dutifully followed them but have become more unhealthy and obese than ever before. The Nutrition Coalition, the non-profit organization founded by Nina Teicholz, is working to ensure that nutrition policy accurately reflects the best and most current scientific evidence. A science journalist and the *New York Times* bestselling author of *The Big Fat Surprise*,¹ Nina explains why the guidelines are doing us a major disservice.

NINA TEICHOLZ: I got interested in the dietary guidelines when I realized that they were the “North Star” on nutrition in America. The guidelines are our nation’s most influential nutrition policy and the key lever determining what Americans think is healthy to eat. They are downloaded to all health practitioners, doctors, nurses, nutritionists and dietitians as the “gold standard.” This means that many doctors in large practices cannot deviate from the guidelines. The guidelines also drive all the federal feeding assistance programs: school lunches; feeding programs for the elderly; the Special Supplemental Nutrition Program for Women, Infants, and Children; food for the military (which has an obesity problem equal to the general population); and even K-12 nutrition education. One in four Americans eats one of those meals every week.

The first guidelines came out of a Senate Select Committee, which in the late 1970s decided to look at the rising tide of heart disease, cancer and other chronic diseases in America. In 1980, the U.S. Department of Agriculture and the Department of Health and Human Services jointly issued their official guidelines, but they didn’t know exactly what to recommend. Strongly influenced by senior scientists from the American Heart Association, they advised a diet reduced in saturated fat, dietary cholesterol

and total fat, and literally recommended that everyone eat ten slices of bread every day. That is still largely what we have now.

The National Institutes of Health (NIH) and the American Heart Association have always been very close, with intertwining directorates going as far back as 1948. In some ways, they operated almost as a single entity. Beginning in 1961, the American Heart Association told Americans to cut back on saturated fat and dietary cholesterol to prevent heart disease. That marked the beginning of all the policies nationwide telling us to reduce animal foods and increase grains and other plant foods for optimal health.

HG: How has that recommendation served us?

NT: Not well! In 1960, only 9.6 percent of American adults were obese. As of 2014—which is the latest government number—it was almost 43 percent. Today, if you factor in the Covid lockdowns, obesity alone could be around 50 percent, and obesity plus overweight is easily over two-thirds of American adults.

The dietary guidelines have clearly failed to prevent chronic disease or protect health in America. After their introduction in 1980, the rate of obesity took an immediate, sharp upward turn, and it has continued upwards ever since, as have rates of diabetes, non-alcoholic fatty liver syndrome, polycystic ovary syndrome, cancer and heart disease, which is still the number-one killer in America. Virtually every diet-related disease has continued to go up. According to an estimate made some years ago, 88 percent of American adults had at least one chronic disease. It’s an appalling picture.

HG: How strictly do Americans follow the dietary guidelines?

NT: A common claim that I hear is, “Nobody

follows them.” However, I have two charts on the Nutrition Coalition homepage (Nutrition-Coalition.us) showing that between 1970 and 2014, in every category of food measured by the government, Americans have followed the guidelines. Intake of fruits and vegetables is up by 20 to 35 percent. Whole-grain consumption is up. Refined grains are down. Red meat is down by 28 percent and beef by 35 percent, whereas fish and shellfish intake are up. Whole milk consumption is down by 79 percent. Butter is down by around 18 percent and eggs by a similar amount. Vegetable oils (“seed oils”) are up 89 percent. In addition, there’s a paper on macro-nutrient intake since 1960, which shows that as a percentage of total calories, carbohydrates (all grains, starches and sugars) are up 30 percent, whereas fat is down by 20 percent. There is not a single category measured by government data where Americans have not followed the guidelines to a “T.”

HG: Please explain the evolution from the food pyramid to MyPlate.

NT: The original pyramid that came out in 1992 prescribed eight to eleven servings of grains a day. Later, they revised that down to six to eleven grain servings per day (including three servings of refined grains) and also recommended five and a half teaspoons of soybean oil every day and up to 10 percent of calories in the form of sugar. In 2011, when the food pyramid started to lose its “cachet,” they switched to MyPlate, a kindergarten-like graphic showing a plate with four brightly colored sections. In the late 1950s, half of a person’s plate would have been animal foods, but MyPlate drops “proteins” to a quarter of the plate—and those proteins are no longer just from animals but also from peas, beans, lentils, seeds, nuts and soy. They shrunk and diluted that entire category. Half of MyPlate is fruits and vegetables, and a quarter of the plate, again, is grains. In other words, plant foods have taken over at least three quarters of the plate, and proteins have been confined to a quarter of it.

There are so many things that are confusing and wrong about the guidelines. Here are a couple of examples. First, in 2015, the expert committee for the guidelines decided that there

was no reason to have a cap on dietary cholesterol anymore (meaning that we no longer needed to avoid nutritious shellfish and egg yolks, which we did for so long). However, though they eliminated the numeric cap on cholesterol, they still say that their formal dietary patterns are “lower in cholesterol.” That is confusing and contradictory.

Second, when the results came out in 2006 from the Women’s Health Initiative—the largest nutrition trial ever undertaken on some forty-nine thousand women lasting eight years—the findings showed no benefits of a lowfat diet for preventing heart disease, any cancer, type-2 diabetes or other chronic disease outcomes. At the end of all that time, the women following the lowfat diet weighed a mere two pounds less than the control group. Can you imagine how dispiriting that must have been after eight years of dieting? Following publication of these results, the dietary guidelines dropped their lowfat language, but all of the modeling on dietary patterns remains low in fat according to the scientific definition. Between 31 and 33 percent of calories as fat is still a lowfat diet.

HG: In other words, they are still emphasizing a lowfat diet and promoting more grains, plants and vegetables than ever before, with very little saturated fat and even fewer sources of animal protein.

NT: Yes. There has been a need for reform of the guidelines for decades. For a decade, my group has been one of the only ones sounding the alarm about this, and we’ve helped raise awareness about the guidelines’ problems. We have done a lot of work to try to establish the fact that the guidelines need reform.

For example, we got Congress to allocate two million dollars to get reports from the National Academy of Sciences, Engineering, and Medicine, and those reports produced eleven recommendations. One recommendation was to improve transparency, because there is currently no disclosure of conflicts of interest or disclosure of how the guidelines expert committee is chosen. Another recommendation was to improve the rigor of the systematic reviews, which don’t follow any recognized or validated

MyPlate drops “proteins” to a quarter of the plate—and those proteins are no longer just from animals but also from peas, beans, lentils, seeds, nuts and soy.

The science supporting the needed changes actually exists, but successive committees have refused to acknowledge it.

methodology. For instance, they do not prioritize clinical trial data over observational or epidemiological data, even though observational data are weak and best suited for generating hypotheses. Only clinical trials can reliably show cause and effect, but the expert committee treats all study designs the same. They will even discount clinical trial results and elevate the epidemiology. They do this consistently.

The USDA has not fully adopted any of the eleven recommendations. My group funded a paper by a team of top methodologists from around the world who did a peer review of the guidelines and looked at eight of the most important systematic reviews cited to support the dietary patterns from the 2020 guidelines.² The paper found that the reviews were of critically low quality, with all kinds of problems and shortcomings. For example, in trying to repeat the literature search, the authors found three times more papers than the expert committee had found! Imagine if you were trying to replicate a recipe, but you had three times more ingredients. Replication is the hallmark of good science. We have plenty of evidence to show that the guidelines are not good science and need reform. We don't have to pause and assess—we have done that.

There are a lot of things that need to change, including the cap on saturated fat at 10 percent of calories. That cap is a rate-limiting factor on animal foods and on how much and what kind of meat and dairy people can eat. That's why we don't have whole milk in schools, and it's partly why people think red meat is bad for their

health. That needs to change; it's based on such outdated science. Another sad and depressing part of the story is that the science supporting the needed changes actually exists, but successive committees have refused to acknowledge it. They either actively suppress it—as they did with the low-carb diet—or they refuse to accept and recognize it.

HG: Why?

NT: That is a complicated question, and I can only speculate. First, there is bureaucratic inertia and cognitive dissonance. There are about thirty-five people in the USDA office that run the guidelines, and most of them have been there for twenty-five or thirty years. They are career “believers.” Related to this, there are a lot of industry and ideological interests lined up behind these guidelines. Many experts do not want to be wrong and do not want to have to reverse their advice, including the American Heart Association. This has been their dominant paradigm for so long. There is a lot of natural resistance to change.

HG: You said earlier that refined grains were included as part of the dietary guidelines. Why is that?

NT: It's a good question. In the expert committee meetings, when they got to the refined grains recommendation, one committee member piped up and asked, “Why are we recommending this?” The committee chair answered, “Only refined grains are enriched and fortified.” If you

HELP US MAKE THE WISE TRADITIONS PODCAST BETTER THAN EVER!

This is the tenth year of the Wise Traditions podcast, and we've had a lot of success! Here are some recent milestones we've accomplished:

- The podcast episodes are now available on our Weston A. Price Foundation YouTube channel.
- We recently passed the sixteen-million download mark.
- We are averaging 407K daily downloads!

But we're not resting on our audio laurels, so to speak. We want to hear from you. If you have guest recommendations, please go to the “About the Show” page on westonaprice.org and fill out the “Recommend a Guest” form. And if you have topic ideas or general suggestions, please email us at podcast@westonaprice.org.

The podcast has been a wonderful tool for education because of your support. The impact of WAPF is growing. Thank you for making the Wise Traditions podcast known to more and more listeners!

do not have refined grains, the dietary guidelines do not meet the nutritional targets for vitamins and minerals. However, our Nutrition Coalition homepage shows that even if you follow the dietary guidelines perfectly, you will not be able to meet the goals for potassium, magnesium, vitamin D and maybe choline. It seems to me that one of the rules should be that the guidelines deliver basic nutrition!

Understand, too, that some of the nutritional targets are bare minimums. For example, the protein standard is the absolute bare minimum to prevent starving to death. The standard is 0.8 grams per kilogram of ideal body weight, but there is a lot of literature to show that what we actually need is almost twice that—1.2 to 1.6 grams per kilogram of body weight—for optimal health, growth, muscle metabolism, development and healthy reproduction. Not only do we need more protein, but ideally we need those proteins to come from animal sources because they are complete and, therefore, more bioavailable. In short, even if you follow the guidelines perfectly, you are still at a deficit. Those are not standards for good health.

HG: You want the guidelines to include more protein and more saturated fats. What other changes would you like to see made?

NT: Here's what I would do. First of all, the guidelines need to be based on an internationally recognized systematic review methodology, so that they're credible and trustworthy. Secondly, they need to be designed to meet all nutrition goals—all minerals and all vitamins. That would be my basic framework for all guidelines going forward.

As far as specific recommendations, the cap on saturated fat has to be revisited, as does the sodium cap. The data on sodium have been exclusively on middle-aged hypertensive men. There are no data on children or virtually any other group, yet the sodium cap is applied to one and all and is set at a level shown in multiple large studies to increase the risk of heart disease. There's a moderate amount of sodium that is ideal. If you go too high, your risk of heart disease increases. If you go too low, your risk increases. There's a J-shape curve. That

has been well established. Finally, as we have already discussed, the protein category needs to be strengthened and probably the level needs to be increased.

Also urgently needed is a dietary pattern for people with metabolic diseases like obesity and type-2 diabetes. Once you have tipped over into metabolic ill health, you can no longer eat the same diet that a nineteen-year-old boy on a football team can eat. That's because you have developed insulin resistance, which I believe is the root cause of all chronic diseases. Insulin resistance means you can no longer tolerate as many carbohydrates in your diet as you used to. There is an enormous body of literature showing that if you reduce carbohydrates—sugars and starches and high-sugar fruits—you can reverse type-2 diabetes, often within weeks. You also can sustainably lose weight. Hunger is not part of this kind of diet, because protein and fat are more satiating. You can reverse hypertension and the vast majority of heart disease risk factors. Reducing carbohydrates also has been shown to reverse non-alcoholic fatty liver disease and polycystic ovary syndrome. It is the way of eating that has generated the best evidence for reversing disease.

According to Secretary Kennedy, Trump wants us to reverse chronic disease with measurable results within two years. The only way you can get there is by having the government officially recognize low-carbohydrate or ketogenic diets for people with those metabolic diseases. I am the lead author, with eighteen other authors, on a 2025 paper titled "Myths and Facts Regarding Low-Carbohydrate Diets,"³³ which addresses common concerns people have about the diet. People ask, "Does it have side effects?" "Is it affordable?" "Is it sustainable?" "Does it cause heart disease?" "Should I worry about my LDL cholesterol?" As part of that paper, we present the first-ever, peer-reviewed, low-carbohydrate/ketogenic food pyramid, designed for people with metabolic diseases. I didn't realize until I started working on the paper how much something like that was needed.

HG: All of this aligns very well with the Wise Traditions diet. We have eleven dietary principles that we point to, based on the work of Dr.

Once you have tipped over into metabolic ill health, you can no longer eat the same diet that a nineteen-year-old boy on a football team can eat. That's because you have developed insulin resistance.

The American Heart Association's endorsement gave [seed oils] a tremendous boost, because now they were seen as a medical product.

Price and some additional research the Weston A. Price Foundation has done. There seems to be growing interest in these topics, and in particular, many people are clueing into the fact that seed oils are bad. Tell us why saturated fat is preferable to seed oils, and why you would remove the cap on saturated fat.

NT: Going back to the American Heart Association's 1961 declaration, that was the first time Americans were told to reduce saturated fats and replace them with "polyunsaturated vegetable oils." The research in my book was the original research showing that these oils used to be used as machine lubricants. I talk about how they entered the food supply via Crisco in 1911 and how their use in the U.S. food supply grew through various campaigns. The American Heart Association's endorsement gave them a tremendous boost, because now they were seen as a medical product. In my book, I have a reprint of an old ad showing Wesson oil, saying, "Take this oil to your doctor," like a prescription pad.

I also reveal the incredible story about how Procter & Gamble basically launched the American Heart Association in 1948 by donating the equivalent of what today would be \$20 million. At the time, heart disease was relatively new and rare, and the American Heart Association was a tiny, sleepy organization. According to the American Heart Association's own official history, when the Procter & Gamble money floated into their coffers, it transformed them overnight into the national powerhouse that they are today. My book describes a letter later sent by an American Heart Association expert scientist, who accuses the organization's president, saying, "I can't believe you're posing with a bottle of Crisco oil in the promotional video. You look like an advertisement." The last time I looked, the American Heart Association was still taking money from seed oil manufacturers.

To explain why seed oils are potentially harmful, I need to explain several things. First, in the 1960s and 1970s, researchers all over the world conducted a series of randomized controlled trials (RCTs) on a total of seventy-six thousand people—a huge number—to test the idea of reducing saturated fats and replacing them with unsaturated fats. In these trials,

one group would get about 18 percent of their calories as saturated fat (regular meat, dairy and cheese), while the other group got soy-filled burgers, soy-filled milk, imitation ice cream and what we would now consider vegan versions of animal foods.

What were the initial findings of these clinical trials? First, researchers found no effect on heart disease mortality, meaning that switching to a seed oil diet did not spare someone heart disease. The most unequivocal result was that all-cause mortality was the same, regardless of which diet participants were on. However, remembering that RCTs are the most rigorous science we have, capable of demonstrating cause and effect, consider that one of the trials (the Minnesota Coronary Experiment) later found data showing that the more someone lowered their cholesterol, the more likely they were to die from heart disease—and by a rather astonishing amount.

A persistent finding that is not well known—and it may only be in my book—is that in six of the trials, including three NIH studies, the people on the seed oil diet died at higher rates from cancer. This led to high-level meetings at NIH throughout the 1980s, where the top scientists got together and said, "What is going on with seed oils and cancer deaths?" More generally, this finding relates to lower cholesterol. There are quite a lot of data to show that, beyond just seed oils, lower cholesterol is linked to higher rates of death from cancer. Although the meetings were reported and published in journals, ultimately, those scientists decided, "Our public health mission to prevent heart disease via a low-saturated-fat diet is so important that we're just going to ignore these results on cancer." That's where things have stood ever since.

There is a tremendous amount of data on the oxidation effects of seed oils, which are more well-known now. I found out about those effects when doing research for my book. In the beginning, my book was going to focus on *trans* fats. I spent the first couple of years hanging out with seed oil scientists, including going to their industry meetings and subscribing to their publications. (Everything they do is behind a paywall, so you can't get to it without joining.) I learned that for them, oxidation is an obvious

and well-known effect of these oils. They have all kinds of measures and tools to deal with it. For example, they put nitrogen blankets over fryers in fast-food outlets like McDonald's and Burger King to prevent the peroxidation products from releasing into the air, because if they get into the air, they solidify like shellac on the walls. They can't get them off. The peroxidation products also harden and clog the drains of the fryers. These chemicals are so volatile that when they take the workers' uniforms to be cleaned, they can spontaneously combust in the back of the truck en route to the dry cleaner! Even after they are cleaned, they will spontaneously combust in the dryer because they are still highly volatile.

Let me explain why that happens. The "poly" in polyunsaturated fats means multiple double bonds in a molecule. Each of those double bonds that are between the carbons will open up and attach to oxygen under conditions of heat or even just light (such as when oil sits on your counter for a while). That's what oxidation is. And because they have multiple double bonds, these fats oxidize a lot. In contrast, the word "saturated" in saturated fats refers to the saturation of those double bonds with hydrogen atoms, meaning that saturated fats have no double bonds and, therefore, no chance for oxidation. In olive oil, the fatty acid only has one double bond, so there is only one chance for oxidation. That's the chemistry of it. That is why you don't want to have polyunsaturated fats in your foods.

Polyunsaturated fats are in most nuts and seeds, which is why nuts and seeds go rancid over time, and they are a lot higher in chicken than they are in red meat. However, the main source—the tsunami we are seeing—comes from all of the seed oils. Although new terminology will never take hold, I would note that these oils actually should be called "plant oils," because while most come from seeds, some of them come from beans. The most common oil used in America is soybean oil.

HG: Does the fact that there's now a spotlight on the need to reform these guidelines, thanks to the work that your group has been doing for a decade, mean that there is a light at the end of the tunnel in terms of where these guidelines may end up?

NT: I think it's too early to say. I know that there are good people at USDA, and I know that Secretary Kennedy wants things to change, but

I don't know whether the folks with the best science will rise to the top or be able to prevail over what are enormous forces against change. We're up against Big Pharma, Big Food, the climate change folks who think there should be no more (or far less) consumption of animal foods and want to eliminate animals from agriculture, the animal rights folks and the Seventh Day Adventist Church, which is surprisingly influential and had a member on the dietary guidelines advisory committee for USDA. The forces that influence nutrition are large. I don't know what will happen.

HG: Thank you for remaining in the trenches and not giving up. We're not giving up either. Our message has stayed true for twenty-five years! For my last question, if the reader could just do one thing to improve their health, what would you recommend that they do?

NT: Do not fear fat, and choose natural whole animal fats over seed oils. ☺☺☺

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This was Wise Traditions podcast #521 (April 7, 2025)



WISE TRADITIONS PODCAST IN SPANISH

Alberto Medina and Anette Ruiz, our Spanish podcast hosts, dropped by the WAPF office during their June visit from Puerto Rico. The WAPF staff was delighted to be part of their itinerary! Pictured from left to right: Tim Boyd, Anette Ruiz, Alberto Medina and Kathy Kramer.

All Thumbs Book Reviews



The Hungry Ghost Bread Book: An Offbeat Bakery's Guide to Crafting Sourdough Loaves, Flatbreads, Crackers, Scones, and More
By Jonathan Stevens
Chelsea Green Publishing

Although Jonathan Steven's Hungry Ghost Bread bakery in Northampton, Massachusetts has been nominated seven times for a James Beard award, he is prepared to "sit on your kitchen counter" and spill all his hard-won breadmaking secrets. He approaches writing as he does bread, with hyper-focused attention to detail, elegance and dynamic energy, caressing the English language as he does grain and flour, like a smitten lover. As far as Stevens is concerned, sourdough bread is the only real bread. Though learning how to bake with live yeast (sourdough "starter") might be intimidating at first, he encourages us to dive in and engage in trial and error. "There is no shame in being an amateur: the word means 'lover of,'" he explains, and most of us are indeed "lovers of" a good loaf of bread. His suggestion is to dedicate a slice of our time to learning how to do it right.

This book might be the catalyst you need to take the plunge into a ball of dough, or, if you have already made a few loaves, to refine your techniques and recipes. The first part gives a general approach to sourdough breadmaking, introducing the basics of measurement, temperature, tools and formulas. Stevens writes in all caps: MORE HYDRATION, MORE FERMENTATION, MORE HEAT IN THE OVEN! He means business. Although he clearly takes breadmaking seriously—after all, his family-run brick-and-mortar bakery is his personal "bread and butter"—he lets us know that he is joyous throughout the process, listening to music, twirling and spinning in the kitchen, feeling like he is part of something grand and even spiritual with every loaf he makes.

The second part gives recipes for loaves sold at Hungry Ghost Bread, such as his Rosemary, Fig and Sage, Rye and Eight-Grain breads.

There are also recipes for fougasse, naan, pizza, folds, crackers, scones, bagels, biscuits, muffins, shortbread, challah, matzoh, French toast, stuffings, pasta and more.

Stevens houses his starters in five-gallon buckets. For curious children, he takes off the lid and lets them sniff what is bubbling away. "The whole bakery runs on ghost farts!" he proclaims with glee. He feeds his Hungry Ghost twice a day. He also reverently calls it "Mother," denoting the respect, love and care due to this special life-giving entity. Other terms include leaven, biga, poolish and chef. The scientific terminology: a symbiotic community of wild yeasts and *Lactobacilli* maintained in a medium of wheat flour and water, where the yeasts are omnipresent single-celled fungi populating our environment, with specific ones suited to specific areas (gosh, this is getting complex). Whatever you call your starter, make sure you treat it well, as it is the ineffable key to the whole thing.

Stevens didn't start out planning to become a baker. A poet, songwriter and cyclist, he tried various trades before discovering his passion for making mouth-watering sourdough. His dedication to perfecting the process and an engine-like work ethic have made him into an expert. Luckily, he wants the world to follow in his flour-dusted footsteps, discovering the magic alchemy of milled grain, water, leaven and salt, and feeling what it is to shape a loaf, transform it with heat and consume it with ecstasy.

Hopefully, reading his poetic descriptions will cause you to salivate enough to feel that you, too, could participate in this ancient ritual (if you get it right, your family, friends, neighbors and coworkers will thank you profusely). We can eat substandard, mass-produced, unimpressive, health-sabotaging, so-called "bread" from supermarkets, or we can eat the real thing.

The closing poem lets you know how Stevens feels: "The bread just might make you whole." Thumbs up for the dedication he brings to his life craft and his generosity in sharing tricks of the trade. Review by Jennifer Grafiada, NTP

This book might be the catalyst you need to take the plunge into a ball of dough.

All Thumbs Book Reviews

Pharma Food – Biotech on Your Plate: The Next Chapter in Big Money’s Battle to End Food Sovereignty

**By Elze van Hamelen with
Catherine Austin Fitts
The Solari Report**

The great poisoning continues. Pesticides, preservatives, artificial colors and flavors, etc. were not enough. Then there was genetic modification. Still not enough. So, let’s just forget about traditional food and start making it in a lab. We can do anything in a lab, right?

As the World Economic Forum puts it, “In the Synthetic Age, it is not just the Earth’s products that are impacted by human actions. Earth’s formative processes themselves become open for redesign. . . . The Synthetic Age reconfigures the essential background substrate out of which all of human history has been crafted. It calls for replacing a world that is ‘found’ with a world that is ‘made.’ It cuts Homo Sapiens loose, perhaps, from important psychological anchors located deep in the recesses of time.” Or as Harvard Professor George Whitesides put it more succinctly, “it would be a marvelous challenge to see if we can outdesign evolution.”

Does anyone else think these people need to get over themselves? Since childhood, we have heard about what a great idea it is to unleash such sorcerer’s apprentices on the world. They don’t think about whether something *should* be done; they only ask, “*Can* it be done?” To put it mathematically: (science > morality) = doom. (The engineering part of me just had to do that.)

As Solari’s *Pharma Food* report documents, many billions of dollars are being spent on this bizarre idea. Experiments being performed to support this agenda are barbaric, to put it nicely. The report speaks of experiments done on near-term aborted babies without anesthesia.

These ghouls would have us believe that they can produce meat from synthetic ingredi-

ents that is “slaughter-free,” “clean,” “guilt-free” and “animal-friendly.” They do not mention that in their quest to develop lab meat, there is no way to do it without live cell lines from calves, other animals or humans (Soylent Green, anyone?). Immortal cell lines are considered the secret sauce for fake meat. Immortal cells that readily proliferate sound kind of like cancer cells to me.

Tiamat Sciences is a biotech company involved in supplying the lab meat industry. Tiamat was a goddess sometimes associated with a serpent or dragon. You have to be taking mental illness to new lows to want food based on cancer cells from a company with a name like that. While governments and rich donors pour billions into this food perversion, traditional farms are being regulated out of existence.

Dutch reporter Elze van Hamelen explains how this is all part of the transhumanist agenda. Body parts can be synthetically produced and replaced. Operating systems can be installed in your body, and RFID chips can track your every move. They would like you to believe this synthetic age will lead to eternal life. This isn’t eternal life—it is anti-life.

So far, according to the polls, most people are not up for being a part of this experiment. Reports like this can help ensure that this dystopia doesn’t happen. The thumb is UP.

Review by Tim Boyd



While governments and rich donors pour billions into this food perversion, traditional farms are being regulated out of existence.

All Thumbs Book Reviews



The Ultimate Vaccine Timeline – A Fact-Packed History of Vaccines and Their Makers
By Shaz Khan & Children’s Health Defense
Skyhorse Publishing

We live in a culture that demands that we trust the science. This is the mandate of the scientific high priesthood of ultimate truth. This priesthood is aided by news media parakeets with nice hair who cluster in their comfy echo chambers and squawk in unison, “safe and effective,” “safe and effective,” “AWK”!

Fortunately, gaping cracks are forming in this perverse narrative, and people are waking up. *The Ultimate Vaccine Timeline* can only encourage that trend. This book is mainly in the form of a chart of dates and events, not chapters and text like you might read to your children before bed. So, it is more of a reference source. Here is a brief summary of the kind of information you see (the book’s tone is relatively dispassionate, the snarky comments are mine):

- 1721: Variolation in England spreads disease and death. Fortunately, it is banned—in 1840. (Wow, that was quick.)
- 1816: Sweden mandates severe smallpox vaccination for children under two. Mandate ends in 1976. (Sigh.)
- 1853: Alexander Wood develops the first glass syringe. (I think he should have been shot. Get it? Get it? Never mind.)
- 1858: British Medical Act is passed, establishing a council to supervise vaccination services.
- 1859-1922: Over sixteen hundred deaths in England follow smallpox vaccination. (Good thing they passed that British Medical Act.)
- 1929: Eli Lilly & Company patent Merthiolate (mercury-containing thimerosal),

licensed for use in childhood vaccines from 1935 to 2000. (Double sigh.)

- 1937: The National Cancer Institute Act is passed. (Have they solved the cancer pandemic yet? Maybe if they lock everyone down. . . or social distance.)
- 1955: Cutter Laboratories produces a polio vaccine that causes forty thousand polio cases, ten deaths and paralysis in one hundred sixty-four children. The vaccine campaign is temporarily suspended.
- 1957-1962: Thalidomide is unleashed on the public, leading to one of the worst medical disasters in history.
- 1962: President John F. Kennedy signs the Drug Efficacy Amendment requiring that all drugs be safe and effective. That fixes everything (or not).
- 1963: Pfizer releases a measles vaccine, withdrawn in 1968.
- 1969: Nixon orders an end to biological warfare. The Defense Department begins ignoring that order immediately.
- 1976: The swine flu vaccine causes fifty-eight deaths, and the vaccine is quickly pulled off the market.
- 1977: An estimated fifty to sixty million women are fitted with contraceptive devices (IUDs). (The message here? Stop making babies, you bad, bad girls!)
- 1980: FDA removes three thousand ineffective drugs.
- 2007: Merck agrees to pay \$4.85 billion in penalties for the deadly Vioxx drug. By 2011, that number is up to about \$6 billion. (Poor Merck.) But they made \$11 billion in Vioxx sales. (Poor Merck.)
- 2020: Covid fiasco. (Most of us remember that. . . if we survived.)
- 2021: Data accumulate showing thousands dying from new mRNA vaccines. Due

Fortunately, gaping cracks are forming in this perverse narrative, and people are waking up.

All Thumbs Book Reviews

to steep devaluation of human life since 1976, original mRNA vaccines are slow to be pulled, and boosters using the same unproven technology continue to be promoted.

- 2025: The search for intelligent life on Earth continues. (Meager results so far.)

A case could be made that medical science has caused more death and suffering than war. How can this be? What is going on? One interesting insight hinted at comes when you study the word *φαρμακεία*. If that looks all Greek to you, that's good, because it is a Greek word meaning "witchcraft" or "sorcery." When you transliterate the Greek letters into English letters, it looks like this: *pharmakeía*. Look familiar? Yeah.

Medical science is a long litany of buffoonery, clownery, oxymorons like "medical safety" and cult-like prompts to "trust the science." I've heard that the great thing about science is that it may make mistakes, but it corrects itself.

Maybe, but if those corrections take years or even centuries, I don't have much use for that kind of science.

As the book points out, the East India Company was chartered in 1600. By 1839, it controlled the most traded commodity in the world—opium. The modern medical industry is the largest drug pusher in the world but still has not shown that anyone is suffering from a drug or vaccine deficiency. Drugs do relieve you of your symptoms, immune function and several IQ points, making you think you are healed. Never mind the complications to follow. It is deception and greed, and some might say it is evil. Birth rates are down, and all-cause mortality spiked to historically unprecedented levels in 2021 and 2022, just after mRNA shots were forced on the population. Whether you think that is coincidence or not, that track record is hardly inspiring. Many are waking up, but many more need to wake up. My thumb is UP.

Review by Tim Boyd

A case could be made that medical science has caused more death and suffering than war.

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

All Thumbs Book Reviews



Germs Are Not Our Enemy: Why the NEW Terrain Medicine Is Best for Optimal Health
By Marizelle Arce, ND
Arcebel Press

If you have read *Virus Mania* (Engelbrecht and others) or *The Final Pandemic* (Mark and Samantha Bailey), you may ask why we need another book on germ versus terrain theory. Well, germ theory has been around since the 1800s, so a lot of “unlearning” still needs to take place.

Germs Are Not Our Enemy has a place in this important task of reeducating the public and many medical professionals. It may help reach those who dutifully get their annual flu shot, wear masks on public transportation and call in sick to avoid passing on a “bug.” What a different world we’d have if we lost our fear of germs! This is naturopath Marizelle Arce’s mission, and ours, should we choose to accept it.

Arce kicks things off with pleomorphism, the idea that bacteria and fungi alter their appearance under certain toxic conditions. This sets the stage for the fact that most diseases have to do with the environment *inside* the body. As Arce puts it, “Diseases aren’t *caught* from microbes outside the body. Microbes like bacteria and fungi are products of the changing of the environment within.” Are we unwittingly labeling as “viruses” organisms that have shape-shifted within us? Have we been blaming foreign invaders for what are simply products of the body’s innate and natural defense mechanisms?

Pasteur got the ball rolling with the “one-germ-one-disease” idea. He not only got it wrong but intentionally manipulated his experiments, yet somehow his perspective has shaped conventional medicine’s approach and public opinion on germs ever since. Western medicine also views the body as a machine; when a body part wears out or becomes dis-eased, it advises replacing it with a new part (say a mechanical knee or hip) without exploring why the body began breaking down in the first place. It overlooks the body’s complexity, displays no

curiosity about how bodies heal and ignores epigenetics; instead it promotes fear of enemy attacks on a fragile “machine” vulnerable to assault. Traditional cultures, Arce says, see the body as “part of nature and the cosmos, but one that is its own microcosm that constantly interacts with nature.”

She points to the many dissenters who have challenged the notion of contagion and mechanistic germ theory, from Florence Nightingale (convinced that illness resulted from “poor environmental conditions, the buildup of filth, putrefaction and decay in hospital wards, lack of exposure to clean air and sunlight, and [lack of] fresh water to clean wounds”) to Dr. Weston A. Price. About smallpox, once considered (and by many, *still* considered) contagious, Dr. Price stated: “The [Native Americans] died of small-pox because they expelled their blood salts by the use of liquor introduced by [Europeans] in excess without replenishing salt in due proportions.” Price considered the blisters the result of an imbalance of salts and proteins. Arce also re-examines other diseases considered contagious, such as cholera and typhoid, and in each case, identifies a plausible terrain theory explanation.

In the chapter, “The Better Way to Create Optimal Health,” Arce lifts up many truths that align with WAPF for cultivating health and well-being. She even includes a list of terms that can replace old ways of thinking and speaking. Instead of, “I caught a cold,” we can say, “I need to detox, upgrade, purge or cleanse.” Though the food section is not strong, Arce reminds us that to assist the body’s efforts in restoring equilibrium: “Food is the real medicine. Toxins and trauma that alter our bodies’ terrain are the real sources of disease.” Consider reading and then sharing the book with those who are still afraid of germs. Maybe you can give it to them before the so-called “cold and flu season”! This book merits a thumbs up for its educational value and practical, applicable recommendations.

Review by Hilda Labrada Gore

Western medicine overlooks the body’s complexity, displays no curiosity about how bodies heal and ignores epigenetics; instead it promotes fear.

All Thumbs Book Reviews

Radiance of the Ordinary: Essays on Life, Death, and the Sinews that Bind

By Tara Couture
Chelsea Green Publishing

A mentor of Tara Couture's had an Alberta accent that caused him to say words in an odd way. One of those words was "beautiful," which he would pronounce "beauty-full." At first, this quirk made Tara chuckle, until she realized that his assessment was absolutely correct. Much of life, most of life, is simply beauty-full.

This is the crux of what Tara communicates in *Radiance of the Ordinary*. She puts into words the essence of the Weston A. Price Foundation's heartbeat: food, farming and the healing arts. With unflinching candor, she sheds light on our complex relationships with spouses, children, death, animals, hard work and the land—what hurts, what heals and why most experiences do both.

It's not often that you come across a book ostensibly about homesteading that makes you tear up, yet this book did so for me. Tara's reflections on motherhood and how it changes over the years; her commitment to saving her marriage when it was on the brink of falling apart; her profound conviction of the need to embrace the realities of processing animals for life to continue; and the heartbreaking reality of her teen daughter's death and her parents' divorce all moved me deeply.

I felt as if I were with Tara through it all and rejoiced in the little reminders of what she calls the radiance of the ordinary—the fact that life has its mysterious purpose, that God is in control and that walking slowly alongside nature and those we love is enough to fulfill us in a way that the superficial vagaries of society and social media can never do.

If I'm making it all sound too good and too deep, this doesn't do the book justice, because Tara refuses to romanticize homesteading life. Life on Slowdown Farmstead might sound idyl-

lic. . . at first, but the reality is both romantic and hard.

Tara puts it this way: "There's nothing wrong with romance—I quite like it myself—but to only show that side of things is dishonest, and it's important to identify that dishonesty wherever it exists, especially in this time, in this world, where we are inundated with images of endless pleasures. Where our culture sells us on the idea that hard work is beneath us or out of reach. Where entertainment is our highest calling. That strife and disappointment are wrong, frustration something to run from, discomfort something to avoid at all costs. None of these things are true and they keep us locked in a perpetual chase with no fulfilling destination."

Tara opens up her world in this book. She shows us what it takes to become a milkmaid with an ornery cow called Clementine. She watches and participates in the taking of a bison's life and its processing, getting covered in its blood and guts. We walk with her as she feeds her family with what she produces and harvests on her farm. She shares her recipe for bone broth and for a contented life.

Again, this doesn't mean that her life is easy. She describes vividly an episode with her newborn baby that was heart-wrenching but led her to stop vaccinating her children. She paints in detail the horror she went through when she learned of her daughter's death and describes how she and her husband navigated the pain.

I see Tara as a unique blend of farmer, communicator, wordsmith and friend. Like Wendell Berry, Tara brings to life all that makes homesteading, parenting and choices made with conviction worthwhile. If you'd like to hear her articulate why food, farming and the healing arts matter, you might want to listen to her interview on the Wise Traditions podcast. This book and Tara's heart, in my estimation, are absolutely beauty-full. Two thumbs up.

Review by Hilda Labrada Gore



Like Wendell Berry, Tara brings to life all that makes homesteading, parenting and choices made with conviction worthwhile.

All Thumbs Book Reviews



Doctors Are More Harmful than Germs: How Surgery Can Be Hazardous to Your Health—And What to Do About It

By Harvey Bigelsen, MD, with Lisa Haller
North Atlantic Books

“We have been convinced that allowing nature to take its course may be dangerous to our health. And, now we. . . have come to accept surgery as a first resort, rather than a last resort.” Early in this 2011 book, Harvey Bigelsen sets the stage for a compelling and revolutionary argument: that chronic conditions are the body’s attempt to deal with an injury (be it from surgery or an accident) and that surgery is another attack on the body. Rather than promoting healing, surgery creates an energetic brick wall, which can cause complications down the road.

Even the crunchiest among us is likely to have undergone procedures (including those dubbed “minimally invasive”) that will compromise our long-term health. Everything from orthodontic work to arthroscopy to cosmetic and exploratory surgeries affect the body in the long term. Bigelsen suggests that even scans are ill-advised. Unfortunately, many of us willingly submit to “early detection”—x-rays, ultrasound, MRIs and CT scans—just to “check things out” and avoid sicknesses we fear might sneak up on us. Scans assault the deep tissues of the body with abnormal energy waves. Bigelsen implies that we are looking in the wrong direction with these interventions, quoting osteopath Dr. Andrew Taylor Still: “To find health should be the object of the doctor. Anyone can find disease.”

Consider how people often respond to a cold. When the body starts creating mucus and invites rest as it deals with the “upgrade,” people decide to go to work anyway, so they take meds to tamp down the symptoms. Because they have interrupted the body’s healing process, the cold lingers. Now the body has to deal with the medicine thrown its way as well as whatever it was originally trying to expel.

Surgery interferes with the healing process on a larger scale. The body, in its infinite wisdom, sees the cuts as an attack and rushes to aid the injured areas. “Surgery is an assault with a knife. Surgery creates scars. These scars trap the inflammation designed to heal an injury. Trapped inflammation settles deeper and deeper into the body’s tissues over the years. Scars permanently alter the structure of the body.”

Lest you think this hyperbole, consider how many layers a surgeon has to cut through to get to the abdomen: the outer skin; connective tissue; nerves and tiny blood vessels; soft tissue; connective tissue; more nerves and small blood vessels; the inner layer of skin tissue; fatty tissue; connective tissue; muscle tissue; nerves and blood vessels; the first fluid layer (a buffer between the inner structural membranes and the outer layers of skin); three or more layers of myofascial tissue; more muscle tissue; more nerves and blood vessels; another fluid layer to lubricate surfaces; a mucous membrane that encases each major internal area; another fluid layer; more connective tissue (the primary “trusses” and slings that hold organs, glands, blood vessels and so on where they belong—some of these are called ligaments and tendons); major blood vessels and large nerves; and the organ, bone, gland or other component.

We are never the same after surgery. Bigelsen does offer detailed stories of those who have found relief and healing without surgery and even post-surgery. Injuries and traumas may not be reversible, but you can release trapped energy to promote healing using modalities like neural therapy, osteopathy, cranial therapy and myofascial release. “Release stagnation, open up your flow, and healing will follow.”

Bigelsen’s insights deepen our understanding of disease, healing and surgery. My main criticism is that the book is too short and not very well known. Perhaps this review will help it gain more popularity. It merits an enthusiastic thumbs up. Review by Hilda Labrada Gore

Everything from orthodontic work to arthroscopy to cosmetic and exploratory surgeries affects the body in the long term.

All Thumbs Book Reviews

The Tech Exit: A Practical Guide to Freeing Kids and Teens from Smartphones

By Clare Morell
Forum Books

The Tech Exit is both the most disturbing and hopeful book I've read in quite a while. It closely aligns with two major priorities of the Weston A. Price Foundation—nourishing our children and using “Technology as Servant.” Author Clare Morell not only has a name in common but has followed in Sally Fallon Morell's footsteps by doing for technology what Fallon Morell has done for food: clearly delineating the dangers of our “standard diet” of screens and social media and providing “recipes” (step-by-step guidance) for us to create a nourishing environment for our families.

Scholar-researcher Clare Morell is passionate about protecting children from online dangers and has been advising lawmakers and working to change public policy for the past decade. She is also a mother living the challenges of raising children in our tech-driven world. *The Tech Exit* is an excellent guide to help parents take back the power that screens have acquired over our children. Thorough and fact-packed, yet a quick and compelling read, it intersperses a plethora of well-referenced data with heart-wrenching and heart-warming real-life examples. The valuable information and resources in the Appendix alone are reason enough to get this book.

Morell starts by documenting the many disturbing problems resulting from technology's overpowering role in our children's lives, exposing the “parental controls” myth (they don't really give you control), soundly denouncing the ineffectiveness of “screen time limits” (no matter how limited, screens often dominate our children's thoughts) and convincingly making a case for change. By now, we all intuitively know the addictive appeal and negative impacts of social media's “likes” and doom-scrolling, but

the research-backed facts that Morell provides may bolster our motivation to act.

To cite a handful of examples, consider that in crisis situations, children have been shown to focus on their phones rather than pay attention to what is going on around them or identify avenues of escape. In school, children learn better and process written text more deeply without screens. In terms of physical health, the disappearance of eye oil glands (typically only an issue for adults in their seventies) is showing up in children as young as eight. As for mental and emotional health, children are exposed to porn, on average, by age twelve, mostly accidentally on social media, in advertisements and in gaming (and even Bible) apps. One in three minors has had an online sexual encounter, and three of four who do, don't tell anyone. Today's porn is often violent, sadomasochistic and dehumanizing. Finally, Morell notes that the instant gratification furnished by digital technology reduces children's capacity to delay gratification, solve problems and deal with frustration and pain. Excessive screen use can even cause brain damage similar to alcohol addiction and drugs like heroin and cocaine.

The good news is that Morell doesn't leave you in the bleakness of these findings. The rest of the book, almost two hundred pages, offers practical guidelines to motivate and energize us to fight back against the harmful impact of smartphones. Continuing with the food parallel, Parts II and III are titled “Fast” and “FEAST” “Fast” is a short, encouraging section offering multiple paths to take a “detox” break from screens. The full benefits require a thirty-day commitment, but one can start with as little as one mealtime without screens. Morell recommends the non-profit ScreenStrong, which offers educational downloads and a free seven-day challenge, as well as more comprehensive paid programs.

“FEAST” offers a cornucopia of hope and (Continued on page 73.)



In school, children learn better and process written text more deeply without screens.

Tim's Video Reviews



Follow the Silenced

Produced by Mikki Willis &

Matthew Lynn Guthrie

<https://www.youtube.com/watch?v=wWZ2VyAU3Iw>

Pfizer. Perhaps you've heard of them? Is it Pizer or Fizer? Maybe they couldn't decide, so they put both letters in there and you figure it out. Pfizer is one of the largest drug and vaccine producers in the world. They are also known for receiving the largest criminal penalties ever. You would think they would not be granted immunity from liability for any new vaccines they come up with.

You would think, but no. And if you want to see their safety test data, you are told you should just trust them and the FDA and wait seventy-five years to get it. That'll happen when pudgy little porkers levitate.

People who suffer "minor" side effects like heart attacks are told they are just having anxiety attacks and sent to a psychiatrist. However, a lot of doctors and nurses have seen these attacks and seem to think they really are heart attacks, among other things. Many doctors don't know about the Vaccine Adverse Event Reporting System (VAERS) where they are legally required to report. Some doctors have been fired for fulfilling their legal obligation; others know about VAERS but ignore it. In the end, only a small percentage of adverse events are reported. Even so, that system shows a massive jump in adverse events since 2021—including "minor" events like death.

In addition to life insurance data, the U.S. military database shows the same thing. When he found out about it, Senator Ron Johnson ordered the DOD to preserve the data. Of course, they immediately shut down the database and changed data for the five years preceding 2021 to make them look like the 2021 data. One might be suspicious when one notices that, during that period, military health has been significantly worse than the health of the general public.

This video follows a group of people with severe side effects who tried to get help from big pharma and big government for years. To their credit, they learned a key lesson. Those who created the problem will not be involved in solving it. So, this group set about creating a grassroots organization because, unlike big government and big pharma, they want to help people. The thumb is UP.

In the Shadow of Flexner

Produced & Directed by Justin Smith

<https://tubitv.com/movies/100031400/in-the-shadow-of-flexner>

A long time ago, Rockefeller, Carnegie and a gang mostly recruited from Johns Hopkins U and the American Medical Association came up with a clever scheme to take over the medical field. They set up organizations to promote and certify pharmaceutical-based approaches. They recruited Abraham Flexner, who was not a doctor, to produce a report that was very critical of alternative medical institutions. Up to that time, options like herbalism, nutrition and homeopathy were on the table. With the help of Flexner, the gang largely eliminated the competition.

As the video points out, mainstream medicine is very impressive at putting you back together when you are sliced, diced, punctured or broken. That is a small fraction of overall medical needs. According to the CDC, around 60 percent of adults have some chronic disease. Big med can't help you there and, if you give them a try, they will probably just make things worse.

In the Shadow of Flexner treats us to a brief history of how we got here and the philosophy underlying modern medical paradigms. This reminded me of one of my favorite TV shows back in the 1970s, *The Six Million Dollar Man*. "A man barely alive. We can rebuild him, make him better, stronger, faster," blah-blah-blah. Little did I realize at the time that I was being introduced to transhumanist ideas. The message has now

According to the CDC, around 60 percent of adults have some chronic disease.

Tim's Video Reviews

been amplified to the point where big pharma is actually talking about downloading an operating system into human beings. Artificial intelligence is adding more fuel to the fire. The message is that we are just robots. Body parts can be artificially replaced, and we can be programmed like a computer. Cookie-cutter treatment is fine because there is not much difference between us humans. Even male and female have become interchangeable.

The video makes an interesting point about how many people are instinctively afraid of doctors. Do these people have the same fear of

homeopaths, herbalists or nutritionists? I can understand how nutrition could be a little scary if they try to make you eat kale, but a good nutritionist would never do such a horrible thing. Still, if I had to pick between kale and needles or knives, I would probably go for the kale, although it is a tough choice.

At this point, many shadows have been cast over the medical field, from Jenner and his vaccines to Pasteur, Flexner and Fauci. But “trust your doctor.” The thumb is UP for this video.



(The Tech Exit, continued from page 71.)
practical ideas in a world increasingly controlled and subsumed by technology. Building out the acronym FEAST, while perhaps a bit contrived, is an effective framework for explaining the key components of breaking free: Finding community, Educating on the dangers of technology addiction, Alternatives to smartphones, Screen rules and Trading screens for real-life experiences.

Part IV, “Collective Solutions,” is valuable for activists working to change schools, communities, laws and regulations. Focusing on the detrimental impact of smartphones and porn, Morell points to organizations like Mothers Against Media Addiction and the Phone-Free Schools Movement, as well as providing inspiring stories of communities that have addressed both successfully. But this is one area where WAPF readers should be alert! Morell credits digital IDs with effectively curtailing child access to porn and speaks positively about it, saying, “This innovative technology both allows adults to verify their age anonymously, protecting their privacy, and provides an effective means of keeping adult content from children, since children don’t have and can’t easily falsify digital IDs.”

Morell closes with a beautiful vision of

family life and community, highlighting stories of flourishing families who have tamed the technology monster. I am reminded of Dr. Price’s description of the mental and emotional well-being he found in the highly nourished groups he studied. In Chapter 21 of *Nutrition and Physical Degeneration*, he wrote, “I have found a universal expression of love, happiness and peace. . . . Children are trained in kindness and unselfishness. . . . The individuals of these races live together in a spirit of cooperation and mutual helpfulness.” Imagine a world where our children and grandchildren are fully nourished in body, mind and spirit. Isn’t that what we all truly want? Don’t delay in reading and sharing this book—both thumbs up!

Review by Kathy Frisch

[*Editor’s note: Whatever Morell’s intentions, please do not allow cover stories about “protecting children” to persuade you that the technocratic push for digital IDs and central control is a good idea. If you have a REAL ID and live in a state where it is not required (most states), turn it in and revert to a normal driver’s license. You do not need a REAL ID to fly if you also have a passport or other form of government ID. Visit the Citizens’ Council for Health Freedom website for more details.*]

Vaccination Updates

THE TERRAIN OF TRUTH: RETHINKING MENINGITIS AND THE ROOTS OF HEALTH

By Kendall Nelson, Director, *The Greater Good*

Few diagnoses strike fear into the hearts of parents like meningitis. Stories of sudden fever, rapid decline and devastating consequences circulate like folklore, reinforced by headlines and public health campaigns. Although U.S. rates of meningitis have fallen precipitously since the 1990s,¹ health officials continue to echo this urgency, presenting vaccines as the surest line of meningitis defense—an unquestionable safeguard against catastrophe.

Fear, while a potent motivator, often narrows the lens through which we see. What gets lost when this type of anxiety becomes the frame? And what truths emerge when we begin to look more closely—not just at the disease, but at the terrain in which it takes hold? It's important to explore the medical framework that officials use to define meningitis, for this foundation shapes the public's perceptions and responses.

THE OFFICIAL STORY

Meningitis (also called spinal meningitis) refers to inflammation of the membranes that cover and protect the brain and spinal cord, known as the meninges. These membranes play

a vital role in shielding the central nervous system, offering structural support and housing nerves, blood vessels and cerebrospinal fluid.²

According to the World Health Organization (WHO) and Centers for Disease Control and Prevention (CDC), meningitis can be acute (defined by sudden onset and severity) or chronic (symptoms lasting a month or more) and either infectious—caused by bacteria, viruses, fungi or parasites—or non-infectious, triggered by factors such as head injuries or cancer.²⁻⁴ Interestingly, medicine also acknowledges one form of iatrogenic meningitis, called drug-induced aseptic meningitis (DIAM), linked to medications like nonsteroidal anti-inflammatory drugs (NSAIDs) and antibiotics.⁵ The perceived cause and the duration of a person's symptoms determine how a meningitis case gets classified.

Public health organizations state that the most common form is “viral” meningitis. In addition to enteroviruses, we are told that a wide range of other viruses can cause meningitis, including herpes simplex (types 1 and 2), varicella-zoster (chickenpox), Epstein-Barr, mumps, measles, influenza, HIV and West Nile.⁶ Bacterial meningitis is described as far less common but significantly more dangerous, requiring urgent medical care due to its rapid progression and potential for severe complications and even death.

The most common symptoms attributed to meningitis include sudden fever, headache and a stiff neck. Other frequently reported symptoms are nausea, vomiting, increased sensitivity to light (photophobia) and confusion or difficulty concentrating. As the illness progresses, individuals may experience seizures, sleepiness (or difficulty waking) and, in severe cases, coma. In babies, instead of these “classic” symptoms, meningitis

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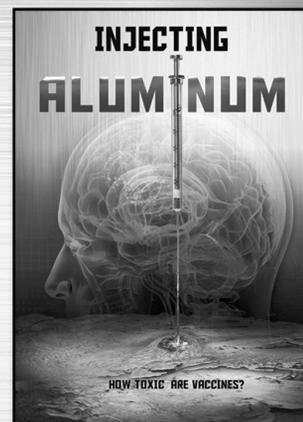
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is said to manifest as unusual fussiness, sleepiness and a bulging soft spot (fontanelle) on the head; infants may also be hard to comfort and may feed poorly.⁴

Public health officials assert that both bacterial and viral meningitis are contagious—that is, spread through various forms of close personal contact (bacterial) or via coughing, sneezing or touch (viral).^{7,8} As with other diseases of recent memory, they also warn that a person can transmit the bacterium or virus in question while being asymptomatic themselves.⁹ Following this all-too-familiar logic, warnings about meningitis go hand in hand with promotion of certain vaccines,⁷ particularly for populations deemed to be more at risk, such as infants, young children and college students.¹⁰ First-year students living in campus housing are a particular target for vaccination because shared or crowded living conditions are said to facilitate bacterial and viral transmission.

In reality, the CDC’s own surveillance data indicate that the risk of meningitis in adolescents and young adults is exceedingly low. In 2023, the Enhanced Meningococcal Disease Surveillance (EMDS) system received reports of four hundred thirty-seven “confirmed and probable” meningitis cases across all age groups, only thirty-eight (8.7 percent) of which were in sixteen- to twenty-three-year-olds.¹¹ More than half of all “confirmed and probable” cases (54 percent) were in adults aged forty-five or older. (See sidebar below for a look at the doubtful methods used to count a case as “confirmed” or “probable.”)

REVISITING GERM THEORY (AGAIN)

One of the most persistent and least questioned assumptions about meningitis is the

germ-theory-derived belief that most types of meningitis are contagious. Germ theory, popularized by Louis Pasteur in the nineteenth century, posits that bacteria and viruses invade the body and cause disease. These are the ideas that gave rise to the pharmaceutical model we live with today: one disease, one microbe, one drug or vaccine.

As Daniel Roytas explains in *Can You Catch a Cold? Untold History & Human Experiments*, in a chapter titled “Béchamp versus Pasteur,” Pasteur’s contemporary, Antoine Béchamp, proposed a radically different theory.¹² Béchamp held that disease originates from within the body and that microbes represent a symptom of illness, not the cause. He believed that tiny particles in the blood, which he called “microzymas,” were the fundamental building blocks of life and could transform into various microbial forms depending on the condition of the body’s internal terrain. According to this concept, known as pleomorphism, bacteria and other microbes do not exist in fixed forms but adapt based on what is going on in their environment. When the body is under stress from toxins, nutritional deficiencies, trauma or other insults, microorganisms may change form to metabolize toxins and break down damaged tissue. In this model, bacteria are not enemies to eradicate but an adaptive cleanup crew that supports the body’s efforts to return to equilibrium.

Tom Cowan and Sally Fallon Morell suggest in *The Contagion Myth* that what we call “infectious disease” is actually a misunderstood and misrepresented detoxification process.¹³ They also point to historical examples of diseases such as scurvy, beriberi and pellagra—once thought to be infectious, later shown to be caused by nutrient deficiencies. Within this framework, “outbreaks” of illness arise not from contagion but from shared exposures, environmental conditions or physiological stress. In *Can You Catch a Cold?*, Roytas details, in a lengthy appendix, investigators’ repeated failure—in over two hundred experiments—to demonstrate person-to-person transmission of influenza and other diseases, even when directly exposing healthy subjects to the blood, mucus, saliva or breath of the sick.

If one accepts that microbes are nature’s cleanup crew, it is evident that our focus should move away from eradication and toward restoration—strengthening the body’s natural defenses through lifestyle and environmental changes and supporting the body’s innate capacity to maintain or restore a healthy internal environment. The human body is not static; it is a responsive, self-regulating system that continuously adapts to internal and external stimuli to preserve balance. This dynamic

HOW DOES THE CDC DEFINE MENINGITIS “CASES”?

According to the CDC, a “confirmed” case of meningitis involves either “isolation of *Neisseria meningitidis* or detection of *N. meningitidis* by PCR from a normally sterile body site.”^{10,43} “Probable” cases are defined as “detection of *N. meningitidis* antigen by latex agglutination or immunohistochemistry.” As faithful readers of *Wise Traditions* know, there is ample reason to question the use of these methods for purposes of valid diagnosis.⁴⁴

Interestingly, CDC does not discuss how it monitors “viral” meningitis cases or cases attributed to the other bacterial species that it says are common causes of meningitis. Instead, adopting a catch-all approach, the agency tells health care providers to “maintain a heightened index of suspicion” and “be aware of atypical presentations” of meningitis, stating that patients “may present without typical meningitis symptoms.”²¹ Not surprisingly, the CDC’s other key recommendation is to “ensure up-to-date vaccination.”

process—homeostasis—allows the body to heal, detoxify and recover. History has taught us the significance of improved sanitation, living conditions and nutrition; those are the factors that led to the steep declines documented for major nineteenth- and early twentieth-century killers such as cholera, typhoid and scarlet fever.¹⁴

From this perspective, let’s consider some of the real reasons why we might observe illness in college students. Many of today’s students are navigating immense mental, emotional and physical stress. Poor sleep, erratic eating habits, a diet of mostly processed food, alcohol and drug use, high academic and social pressure and disconnection from nature are factors that can compromise students’ terrain and weaken their resilience.

VACCINE PROMOTION: A CORE FEATURE OF THE MENINGITIS NARRATIVE

If microbial expression is a response to internal imbalance rather than the root cause of disease, then the logic of targeting microbes with vaccines—and promoting vaccination as the first and often only line of defense—demands close scrutiny. When it comes to meningitis, public health organizations’ logic is particularly flawed, because although meningitis vaccines target only certain bacterial strains and not putative viral or fungal causes, officials persist in presenting vaccination as the most effective preventive measure.³

Public health agencies hold four types of bacteria responsible for most cases of bacterial meningitis and for at least half of all meningitis deaths globally: *Neisseria meningitidis* (meningococcus), *Streptococcus pneumoniae* (pneumococcus), *Haemophilus influenzae* type b (Hib) and *Streptococcus agalactiae* (group B streptococcus or GBS).³ Existing meningococcal conjugate, pneumococcal conjugate and Hib vaccines target the first three, and vaccine manufacturers also have a maternal vaccine within their sights to address risks of mother-to-child transmission of GBS during childbirth.^{15,16} In the U.S., there are three types of meningococcal vaccines and seven different approved formulations to address different combinations of bacterial strains (called “serogroups”): two monovalent MenB vaccines (Bexsero and Trumenba), three quadrivalent MenACWY vaccines (Menactra, MenQuadfi and Menveo) and, approved in 2023 and 2025, respectively, two pentavalent MenABCWY vaccines (Penbraya

TABLE 1. Ingredients in seven U.S. meningococcal vaccines

INGREDIENTS	MenB		MenACWY			MenABCWY	
	Bexero	Trumenba	Menactra	Men-Quadfi	Menveo	Penbraya	Penmenvy
Aluminum		X					
Aluminum hydroxide	X						X
Aluminum phosphate		X				X	
Amino acid					X		
Ammonium sulfate			X	X			
Bovine casein			X				
Bovine, casamino acid			X				
Dextrose						X	
Formaldehyde			X	X	X		
Histidine	X	X				X	X
Kanamycin	X						
Phosphate buffer			X	X			
Polysorbate 80		X				X	
Potassium phosphate							X
Salts, mineral	X			X		X	
Sodium acetate				X			
Sodium chloride	X			X		X	X
Sucrose	X					X	X
Trometamol						X	
Yeast					X	X	

and Penmeny).¹⁷⁻¹⁹

The CDC recommends routine vaccination with multiple doses of PCV and Hib vaccines in the first fifteen months of life, two doses of meningococcal vaccine for preteens and teens at ages eleven to twelve and sixteen,²⁰ one dose of meningococcal vaccine for military recruits and first-year college students living in dorms (if not previously vaccinated at age sixteen or older) and PCV vaccination for adults age fifty years or older (with recommendations varying according to vaccination history).^{21,22} There are additional meningococcal recommendations for children and adults with certain medical conditions (including babies as young as two months of age) as well as for children and adults traveling to countries with “hyperendemic or epidemic meningococcal disease.”

The WHO has preferentially recommended mass vaccination with the pentavalent Men5CV vaccine in Africa since 2023, arguing that the vaccine can conquer the so-called “African meningitis belt.”²² In lower-risk settings, WHO’s somewhat more selective approach targets trav-

elers, immunocompromised individuals and certain occupational groups.

MENINGITIS VACCINE INGREDIENTS AND ADVERSE EVENTS

As Table 1 shows, the disclosed ingredients of meningococcal vaccines approved in the U.S. include problematic substances such as aluminum adjuvants, formaldehyde, polysorbate 80 and sodium chloride.^{23,24} All of these come with risks, particularly when injected. The Mayo Clinic warns, for example, that injected sodium chloride can cause serious allergic or infusion reactions, fluid overload and overhydration (leading to fluid in the lungs) and low or high blood sodium levels (associated with a variety of serious problems).²⁵

As for aluminum adjuvants, peer-reviewed studies link aluminum to neurotoxicity, allergic sensitization and autoimmune responses—effects especially troubling for infants and young children with developing brains and immune systems.²⁶ Unlike aluminum that is ingested (most of which is poorly absorbed and rap-

The disclosed ingredients of meningococcal vaccines approved in the U.S. include problematic substances such as aluminum adjuvants, formaldehyde, polysorbate 80 and sodium chloride.

ARE THEY TRYING TO HIDE SOMETHING?

Though regulatory agencies project confidence about the U.S. vaccine program, its scientific underpinnings—particularly as regards safety in children—are surprisingly incomplete. Consider the following:

- There has never been a large-scale, government-funded study with a randomized, double-blind, placebo-controlled design to compare long-term health outcomes between fully vaccinated and completely unvaccinated children.⁴⁵ However, over one hundred smaller-scale “vax-unvax” studies published in the peer-reviewed literature point to superior health outcomes in children and adults who forego some or all vaccines.⁴⁶
- Most vaccine safety trials use another vaccine or an adjuvanted solution as the comparison, rather than an inert placebo such as saline, limiting their validity.⁴⁷
- Health providers administer vaccines according to complex schedules that result in multiple exposures to various ingredients, yet no study has assessed the combined toxicological impact of the full U.S. childhood vaccination schedule as actually given. Independent research increasingly indicates that vaccines and vaccine ingredients can interact synergistically—raising toxicity in ways that trials of individual ingredients or vaccines are not designed to detect.^{48,49}
- The widely cited concept of vaccine-induced “immune memory” remains theoretical; it has never been directly observed or measured in a living human system over time.
- Pre-licensure trials routinely exclude the populations most vulnerable to vaccine injury—such as pregnant women and children with cancer, autoimmune disease or diabetes—yet after a vaccine receives approval, officials often recommend that these same high-risk individuals be first in line to receive it.
- Most safety studies monitor participants for only days or weeks—periods too brief to permit detection of long-term effects or delayed adverse events.
- Post-licensure surveillance, meanwhile, is passive and incomplete, capturing only a fraction of incidents.⁵⁰

In any other area of medicine, such scientific gaps would halt widespread use. But with vaccines, the public is expected to let assumptions of safety stand in for rigorous proof.

idly excreted), injected aluminum bypasses the body's natural filtering mechanisms, entering directly into tissues and circulation where it can accumulate and persist. (For more on aluminum adjuvants, see the article by Dr. Christopher Shaw in this issue of *Wise Traditions*.)

Vaccine manufacturers list a wide range of adverse reactions to meningococcal vaccines in their package inserts, reported in clinical trials or during post-marketing surveillance,^{27,28} ranging from milder symptoms like injection-site pain and swelling, fatigue, nausea and fainting to more severe outcomes such as seizures, anaphylaxis, Guillain-Barré syndrome and mystery conditions like Kawasaki disease.²⁹ Internationally, administration of a meningococcal vaccine developed specifically for use in sub-Saharan Africa, called MenAfriVac, left at least forty of five hundred Chadian children paralyzed in 2013.³⁰ In a 2022 paper, an enthusiastic Italian researcher extolled MenAfriVac's "high immunogenicity" (ability to stir up an immune response), making no mention of adverse events.³¹

In the U.S., adverse events following vaccination are reported through the Vaccine Adverse Event Reporting System (VAERS). Although VAERS data do not establish causation, the volume and severity of reports submitted following meningitis-related vaccination raise valid concerns—particularly given that severe meningitis is rare in the U.S. As of July 25, 2025, nearly two hundred sixty-three thousand reports had been filed related to meningitis-associated vaccines (Hib-containing, pneumococcal and meningococcal vaccines combined),³² with almost forty-six thousand classified as serious. These include hospitalizations, permanent disability and deaths, with reported symptoms ranging from myocarditis and seizures to multisystem inflammatory syndromes. Recall, too, that vaccine injuries are vastly underreported; a government-funded study by Harvard Pilgrim Healthcare found that VAERS captures fewer

than 1 percent of adverse events.³³

Word about the risks of meningococcal vaccines has trickled out. One law firm openly describes "a host of dangerous meningococcal vaccine side effects" on its website, citing a nearly threefold risk of developing Bell's palsy or another neurological disorder within twelve weeks of the first dose.³⁴ The attorneys also warn that the "dangers increase significantly when the meningitis vaccine is administered in conjunction with another vaccination," which is often the case.

SEEING THROUGH THE FEAR

Research published in July 2025 reveals that children in the United States face an 80 percent higher risk of death compared to their peers in other industrialized nations, with nearly half receiving ongoing medical treatment for chronic health issues.³⁵ The study, published in *JAMA*,³⁶ analyzed hundreds of millions of health records and found that within the U.S., children were 15 to 20 percent more likely to have a chronic condition as of 2023 compared to 2011—including conditions like autism and developmental delays. The study's first author told CNN, "In the '90s, when [I] started taking care of children [I] hardly ever saw one with a

WHAT ABOUT Hib-CONTAINING VACCINES?

CDC claims that *Haemophilus influenzae* type b (Hib) was the leading cause of bacterial meningitis prior to the introduction of "effective" vaccines. As with many other CDC assertions, this merits a closer look. In the early 1980s (before the vaccine's rollout), CDC received reports of roughly twenty thousand Hib cases annually (about forty to fifty per hundred thousand), largely in children under five.⁵¹ However, a Swedish study showed that in children exclusively breastfed for at least thirteen weeks, the pre-vaccine risk of serious outcomes from this low-incidence disease was minimal, about one in one hundred forty-three thousand.^{52,53}

The same cannot be said about current Hib vaccines (ActHIB, Hiberix, PedvaxHIB and combination products like Pentacel and Vaxelis), which contain aluminum and other adjuvants. The aluminum adjuvants are present in amounts (for example, two hundred twenty-five mcg in PedvaxHib) that vastly exceed "safe" daily exposure levels for infants.⁵⁴⁻⁵⁶ As with other childhood vaccines, package inserts also disclose that no Hib vaccine has been evaluated "for carcinogenic or mutagenic potential, or potential to impair fertility."

Reported Hib vaccine side effects range from fever, vomiting, ear infections, rash and upper respiratory infections to seizures (conservatively estimated at 1 in 1,098 children), type-1 diabetes (1 in 1,852 after four doses), neurological disorders and so-called "sudden infant death syndrome."⁵⁷ As of July 25, 2025, VAERS had received almost ninety-eight thousand reports of adverse events following Hib vaccination, including over twenty-nine hundred deaths.⁵⁴ The former Institute of Medicine (now called the National Academy of Medicine) admitted in 1994 that available evidence can neither prove nor disprove links between Hib vaccination and several severe outcomes,⁵⁸ and there is no research to confirm CDC's claim that Hib vaccines cause less permanent disability and death than Hib itself.⁵² On the contrary, studies show that combination vaccines that include a Hib component are associated with an alarming increase in the risk of infant death.^{59,60} However, it is impossible to know whether Hib, another vaccine component or the interaction of various ingredients is responsible.⁶¹

chronic condition.” In absurd response, we are now witnessing the widespread normalization of childhood chronic illness, as evidenced by the debut of Mattel’s “Diabetic Barbie,”³⁷ who comes complete with an insulin pump and teaches children that disease is not only normal, but to be expected.

Mainstream news coverage of the *JAMA* study was careful to remain within the Overton window, steering clear of discussing the changes in the childhood vaccine schedule that have coincided with the deterioration in children’s health. Instead, and around the same time, one of the *Washington Post’s* most reliable vaccine cheerleaders came out with a new fear-mongering article about meningitis titled, “Meningitis B is rare but deadly. Parents who lost children to the disease wonder why no one mentioned a vaccine.”³⁸ Adding symbolic weight to this narrative, a group called Meningitis Awareness promotes World Meningitis Day—held annually on October 5—to reinforce the perception of meningitis as an urgent threat solvable only through vaccination.³⁹

More than just a medical tool, vaccination is marketed as a moral imperative, particularly for populations deemed “high risk.” In July 2025, FDA signaled the continuation of this type of messaging, approving Moderna’s Spikevax for “vulnerable” infants and children.⁴⁰ As with Covid-19, messaging about meningitis and other diseases elevates fear, while dismissing terrain theory and positioning pharmaceutical solutions as both inevitable and unassailable. This is not a science-based model of health, but a compliance-based system shaped by corporate and other more hidden interests. If vaccines

were truly safe and effective, there would be no need to coerce.

Until recently, the fear and guilt that are deeply embedded in vaccine messaging—whether about meningitis, measles or other diseases—have been all too effective in promoting compliance and persuading the public that pharmaceutical interventions are the only path to safety. This may be changing; a recent survey found that the percentage of U.S. adults supporting vaccine exemptions—whether for philosophical, religious or medical reasons—roughly doubled between 2019 and 2025.⁴¹ As more people step back, ask hard questions and seek a deeper understanding of what it truly means to be healthy, the germ theory paradigm is cracking. This may be why a panicked American Academy of Pediatrics (AAP) is now lobbying for federal mandates on childhood vaccines, seeking to eliminate all nonmedical exemptions.⁴²

We do not need another booster or another fear-based campaign. We need a new model, one that honors informed consent, supports vitality and recognizes the sacred individuality of each human being. We don’t need to fine-tune a broken system—we need to build something new. ☯

As a documentary filmmaker, Kendall Nelson directs, produces and distributes media that matter. With over thirty years of television and film experience, her commitment is to bring about awareness through her work, including advocating for health freedom, simple living and real food. She is a member of the International Women’s Forum and holds certifications in health coaching, Simplicity Parenting and yoga instruction, reflecting her lifelong dedication to wellness, conscious living and the wellbeing of children. She also serves as a consultant for the Weston A. Price Foundation.

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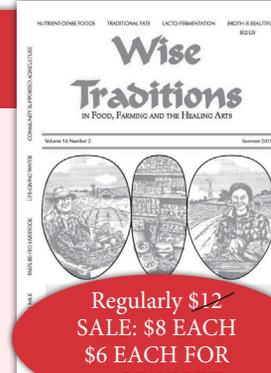
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A Campaign for Real Milk

DISTORTIONS AND MISINFORMATION ABOUT RAW MILK

By Peg Coleman

On May 8, 2025, the North Carolina Department of Agriculture and Consumer Services issued a press release entitled, “With raw milk in the news, here is background information and studies on raw milk.” The document provides invalid conclusions, half-truths and distortions of scientific evidence that may misinform and intentionally deceive the public.

The claims made in the press release are not supported by the current body of scientific evidence on benefits and risks of raw and pasteurized milks. Study after study in the peer-reviewed literature dispute the claims made in the press release. The press release offers North Carolina citizens entrenched beliefs masquerading as scientific facts that are not supported by scientific evidence. In reality, neither pasteurized nor raw milk is risk free.

Here are the facts that the NC press release left out, each with references that you are encouraged to review and fact-check.

1. The press release does not provide a valid scientific evidence base for claims that raw milk poses inherent public health threats from potential bacterial and viral hazards.
2. Pasteurized milk is a highly processed food that is linked to adverse health effects.
 - a. CDC reported two thousand one hundred eleven pasteurized milk illnesses and four deaths for 2005-2020.¹
 - b. Significantly higher outbreaks, hospitalizations and deaths were reported in pasteurized dairy from 2007-2020 of listeriosis compared to raw dairy.²
 - c. Stillbirth, miscarriage and premature delivery were reported for pasteurized dairy, not raw dairy.²
 - d. Heating milk (boiling and pasteurization) denatures milk proteins, increasing allergenicity and contributing to inflammatory disease.^{3,4}
3. Approximately fifteen million raw milk consumers benefit from access.
 - a. A recent government survey estimated that 4.4 percent of U.S. population consumes raw milk.⁵
 - b. Multiple sources report that consumption of raw milk is increasing, not decreasing (NielsenIQ figures^{6,7} and California production data⁸).
 - c. CDC reported one thousand six hundred ninety-six raw milk illnesses for 2005-2020,¹ but not inflammatory disease.⁹
 - d. In one study, children with an allergy to pasteurized milk tolerated raw milk, whereas pasteurized milk induced adverse effects.³
 - e. Raw milk has a dense and diverse microbiota, similar to the breastmilk microbiota. Both benefit the gut microbiota and immune system function and suppress growth of pathogens.⁸⁻¹¹
4. CDC data indicate that illness associated with raw milk is not increasing in North Carolina or any state.
 - a. No significant increase was reported for illnesses linked to raw milk (see upper panel of Figure 1 in the referenced study).¹²
 - b. No significant increase was reported for state outbreaks or illnesses associated with raw milk, nor are rates by state increasing¹ (see Figures 11, 12, and 13 in the referenced study).¹
5. Consuming raw milk complete with intact natural microbes (microbiota) is beneficial to children's health.
 - a. Just as children benefit from raw breastmilk and its protective microbiota, children (and adults) also benefit from raw cow or goat milk complete with their protective microbiota that strengthen gut, immune, nervous and respiratory systems.^{9,13}

- b. CDC data for 2005-2020 indicate that no child died in the U.S. from consuming raw milk.¹
 - c. Children with allergies to pasteurized milk tolerate raw milk with no adverse effects.³
 - d. In multiple large cohort studies, children exposed to raw milk developed no diarrheal illness, had significantly fewer respiratory and ear infections and were more protected from inflammatory disease.^{9,14,15}
6. Emeritus Professor Rodney Dietart at Cornell University and colleagues have provided the only peer-reviewed systematic analyses to date of both benefits and risks for raw and pasteurized milks.⁹
- a. Claims in the NC press release that raw milk is “inherently dangerous” and that “risks exceed benefits” are not supported by the body of scientific evidence.^{9,13}
 - b. These claims appear to be “risk perceptions,” that is, “a person’s subjective judgement or appraisal of risk”¹⁶ and “a blending of science and judgement with important psychological, social, cultural, and political factors”.¹⁷ Thus, risk perceptions are social constructs reflecting ideology, beliefs and economic interests, not estimations based on the accepted framework for evaluating and incorporating scientific evidence^{18,19} and quality analysis²⁰⁻²² for robust risk analysis.
7. Scientific evidence fails to support the hypothesis that avian influenza H5N1 transmits to humans by ingestion.
- a. Avian influenza H5N1 is not a fooborne pathogen that causes stomach flu in humans, but a respiratory infection and eye inflammation (conjunctivitis).²³⁻²⁵
 - b. All lines of evidence for assessing influenza transmission²⁶ fail to support the hypothesis about oral transmission of avian influenza.
 - i. Avian influenza H5N1 is not highly pathogenic or highly virulent for exposed dairy workers.^{25,27} Mild eye inflammation was reported for forty-one dairy workers in five states (thirty-one in CA, two in MI, one each in CO, NV and TX) exposed to reportedly infected cows.²⁸ No oral infections or pneumonia were documented in dairy workers or consumers.
 - ii. No disease transmission was observed for non-human primates inoculated with a high oral dose of H5N1,²⁹ while the same dose caused mild illness by the nasal route and severe illness with pneumonia by inoculation into the deep lung of non-human primates. This study was one of forty-four available inoculation studies recently reviewed.⁸
 - iii. No epidemiologic evidence documents oral transmission of H5N1 to raw milk consumers, even though more than two hundred sixty-three thousand gallons of H5N1-positive raw milk (~4.6 million servings) circulated in the CA retail market last November before a raw milk recall.⁸ No human influenza cases were reported.²⁸
 - iv. Validated models of transmission for respiratory and ocular exposure exist for influenza A²³ but no mechanistic models exist for oral transmission of H5N1. 

Peg Coleman, MS, MS, is a medical microbiologist and risk analyst who consults on microbial benefits and risks via food and all potential transmission sources. She serves as a Fellow of the Society for Risk Analysis and a peer-reviewer for many scientific journals. Ms. Coleman provides expert testimony on evidence for microbial benefits and risks. For more information, visit Coleman Scientific Consulting (colemanscientific.org).

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Grandchildren of Alexandria, Virginia chapter leader, Janice Curtin, with their first batch of sauerkraut, with a little help from their dad. The boys love it!

ARKANSAS - Liability Waiver for Raw Dairy Products

One of the biggest obstacles to meeting the explosive demand for raw milk is the lack of affordable product liability insurance. A Colorado dairy farmer who recently tried to obtain a policy said that the cheapest premium she found was six thousand dollars per year, an amount that is not cost-effective for the many micro-dairies with under ten cows that are seeking insurance. A California insurance broker who provides product liability policies remarked that the minimum payment for product liability from his company would be about nine thousand dollars, which would cover the premium and other costs. Many companies who write policies for raw milk producers write policies for only licensed and inspected producers; there currently are over twenty states where, by statute, an unregulated producer can legally sell or distribute raw milk.

Insurers, such as Farm Bureau, won't write a policy for a farm that produces and distributes raw milk, not even issuing a policy that has an exclusion for that activity. Raw milk has a good track record for safety. In 2020, a year when demand for raw milk went up substantially, there were five foodborne illness outbreaks attributed to consumption of the product totaling twenty-eight illnesses, one hospitalization and no deaths. According to CDC data for 2005-2020, leafy greens accounted for nearly fifteen times the number of illnesses that raw milk consumption did, yet leafy green growers haven't been reported to have had anywhere near the problems that raw milk producers have had in obtaining product liability insurance. The lack of affordable insurance, or lack of insurance—period—has deterred potential high-quality raw milk producers from getting into the business; it has also moved high-quality producers to leave the business.

Insurance industry practices are a major barrier to health for Americans; it's way past time for Congress to revoke that industry's antitrust exemption. The insurance problem raw milk producers have raises the question of whether state legislatures should immunize them from liability to provide the protection that insurance companies refuse to offer, as well as to facilitate bringing enough product into the market to meet the booming demand. State bar associations have usually been able to stop liability waivers for producers from passing into law, but there is one state that has adopted a liability waiver for raw milk products. Arkansas statute requires that a sign at the point of sale and a label on the milk container include the following statement, "The consumer assumes all liability for health issues that may result from the consumption of this product."

Before 2025, the Arkansas law (Arkansas code 20-59-248) allowed the unregulated on-farm sale of an average of five hundred gallons a month of raw milk. This year the state legislature amended the law substantially, taking the cap off sales and expanding venues to include farmers markets, "natural food stores" and delivery from the farm where the milk was produced.

The new law also allows sales of any raw milk product. Producers selling a raw dairy product at farmers markets, natural food stores, or through delivery must include the following statement on the label, "Warning: This product, sold for personal use and not for resale, is a product that has not been pasteurized and may contain harmful bacteria that can cause serious illness. The consumer assumes all liability for health issues that may result from the consumption of this product." In addition, a consumer obtaining raw dairy at any of the venues added by the new law must sign "an acknowledgment of risk that the consumer assumes all liability for health issues that may result from the consumption of the raw milk product."

With the new law, Arkansas joins Wyoming as the only states to allow the sale of raw dairy products from unregulated producers in retail stores. The Arkansas legislature would not have undertaken this significant expansion of the law if it didn't think the statutory liability waiver was working effectively. If raw milk producers can't get a fair shake from the insurance companies, liability waivers could be the needed step to meet the unprecedented demand that currently exists for raw dairy products.

States could try to set up their own insurance pools for raw milk producers, but that's a long shot. If the consumer has a clear warning that there is no legal recourse for illness, the liability waiver should be an option for state legislatures to consider.

FLORIDA - KEELY FARMS DAIRY

Raw pet milk, as far as is known, has never been implicated in any foodborne illness outbreaks in Florida before, but that changed this past August when, in a series of press releases, the Florida Department of Health (FDH) accused

Keely Farms in new Smyrna Beach of sickening twenty-one people with *Campylobacter* and Shiga toxin-producing *E. coli* (STEC). According to FDH, there have been twenty-one cases since January 24, 2025, including six children under the age of ten, and seven hospitalizations linked to consumption of raw milk from Keely Farms; severe complications have been reported in at least two cases.¹

While there were complaints from customers claiming that their milk had made them sick, the FDH press releases provided no evidence linking Keely Farms to the illnesses. If a government agency alleges that a dairy has made people sick, the usual procedure is for the agency to issue or obtain an order shutting down the farm until it shows it has rectified the conditions that led to the outbreak. FDH did not serve Keely Farms with an order or a notice of violation, never conducted a farm site visit, nor notified Keely directly that it was under investigation²; the dairy continued to produce raw milk. There was no indication that FDH had taken any milk samples for testing; the dairy sent milk samples to a lab to test for *Campylobacter*, STEC and mastitis, all of which came back negative.³

The Keely Farms milk was all labeled with a warning, stating “not for human consumption.” The farm website warned customers: “Since federal law prohibits the use of raw milk for human consumption, please DO NOT discuss this issue with us.” Despite the label and website warnings, on August 14, Rachel Maddox filed suit against Keely Farms and a store where she purchased the milk, seeking compensation for illness suffered by Maddox and her two-year-old son; the lawsuit alleges that Maddox lost her pregnancy due to consuming the milk.

If a jury were to find that Keely Farms milk was responsible for the illnesses, the “not for human consumption” warning on the label would not likely exempt the dairy from liability. Under tort law, a producer can be found liable not only if the illness was caused by an intended use of the product but also by a “reasonably foreseeable” use (such as the use of pet milk for human consumption).

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BACK ISSUES OF *Wise Traditions* AND OTHER INFORMATIVE LITERATURE

Summer 2015	Vaccination Dangers Issue.
Spring 2016	Folic Acid and Glyphosate; Why We Need Saturated Fats; Cod Liver Oil Testing; Flint, Michigan Cautionary Tale.
Fall 2016	Recovery from a Low-Carb Diet; Why We Need Carbs; Salt; Nutritional Yeast; Big Box Stores; Addictions.
Spring 2017	Type 2 Diabetes; Couch Potato or Marathon Runner?; Weight Loss; Costa Rica; Moving Heavy Loads; MSG.
Winter 2017	The HPA Axis; A Primer on the Thyroid; Recovery from Bioidentical Hormones; WAPF in Peru.
Summer 2018	Treating GERD; Gallbladder Health; Herbal Bitters; Hidden Histamine Problems; Constipation.
Fall 2018	Seniors on Drugs; Chronic Hyperinsulinemia; Dangers of Daily Aspirin Use; Incontinence; Nepal.
Spring 2019	Surviving in the Aluminum Age; The Cannabis Craze; Fluoride Dangers; Risks from Tablet Use.
Fall 2019	Why We Cook; Mitochondria and Health; Prenatal Ultrasound, Not So Sound; Dissecting Fake Burgers.
Winter 2019	Dietary Support for the Alcoholic; Vitamin B6 and Nutritional Dependencies; Switzerland's Sourdough Bread.
Spring 2020	Vitamin A-Mazing; Sunlight and Vitamin D; Vitamin K2 MK-4, Dr. Price's X Factor.
Summer 2020	Is Coronavirus Contagious? Air Pollution, Biodiesel, Glyphosate and Covid-19; The Current Health Crisis.
Fall 2020	Toxic Iron, Arsenic and Anthrax, Traditional Foods of Morocco; Modified Food Starch.
Winter 2020	Chlorine Dioxide Controversy; Coconut and Encocados; Infant Constipation; The Elder Plant; Arsenicum.
Spring 2021	Bringing Up Baby; MSG-Glyphosate Connection; Advice for the EMF-Sensitive; Colonoscopy Risks.
Summer 2021	Hidden Food Ingredients; Glyphosate and the Gut; Questioning Covid; Foodways of the Australian Outback.
Fall 2021	Sound Frequency Therapy; Covid Vaccine Shedding; Outlawing Meat in India; The Batwa Pygmies of Uganda.
Winter 2021	Money and Public Health Policy; Cell Phones and Thyroid Cancer; DIY Covid Treatment; Low-Fodmap Diet.
Spring 2022	The Great Virus Debate; Solving the Mystery of TB; RFK, Jr. Speech; Covid and Mechanical Ventilation.
Summer 2022	Devil in the Garlic; MSG and Obesity; Sunscreen Dangers; Reducing EMF Exposure; Mediterranean Diet.
Fall 2022	Salt, Dopamine and Health; Gallbladder Health; Lung Health; A Soy Prison Saga.
Winter 2022	Optimal Hormonal Development in Your Child; Living in the Plasticene; Gender Surgery; Scottish Porridge.
Spring 2023	What Makes Us Sick?; Transcending the Narrative; The Kazakh Eagle Hunters; Medical Testing.
Fall 2023	Vitamin A for Fertility; Vitamin K ₂ , MK-4; Dr. Price's Remedy; Weight-loss Drugs; Adrenal Fatigue.
Winter 2023	An Update on GAPS; A Cannabis Suicide; The Lyme Disease Lie; Dangers of Stevia.
Spring 2024	The Gut Microbiome, Oxalate and Your Kidneys; Reducing Anemia in India; Snapshots from Omo Valley Tribes.
Summer 2024	The Curse of Cottonseed; Staying Out of the Emergency Department; Contagion in Jewish Law.
Fall 2024	Effects of Glyphosate; Dental Metals and Neurodegenerative Diseases; Kayaking the Greenland Coast.
Winter 2024	Blood Pressure Scam; 5G Survival; School Kids and Sardines; Cost of Climate Change Measures.
Spring 2025	U.S. Dietary Guidelines; The Oyster Is Our World; Chlorine Dioxide; Bioremediation.
Summer 2025	Measles; Dietary Practices in India; Blood Thinners; Germ Theory; Raw Milk for IV Infusions.

HEALTHY BABY ISSUE: Traditional Remedies for Childhood Illness; Baby Food and Formula; Vitamins for Fetal Development; Wrong Advice in Baby Books; Vaccinations; Baby Food; Gut and Psychology Syndrome.

HEART DISEASE ISSUE: What Causes Heart Disease? Benefits of High Cholesterol; Oiling of America and more.

All articles from all journals are posted at westonaprice.org.

Back issues are \$12 (includes shipping). Discounts: \$8 for 10-49; \$5 for 50 or more.

HEALTHY 4 LIFE DIETARY GUIDELINES AND RECIPE BOOK in English, French, Spanish and Italian
\$10 each (includes shipping) or \$6 each for 10 or more.

11 DIETARY PRINCIPLES: \$10 each (includes shipping) or \$6 each for 10 or more.

TIMELESS PRINCIPLES OF HEALTHY TRADITIONAL DIETS 28-page booklet in English, French and Spanish
\$1 each (includes shipping), 60¢ each for 100 or more.

2025 SHOPPING GUIDE 89-page booklet listing 2,000 products in categories: Best, Good, Avoid
\$3 each (includes shipping) \$1 each for 10 or more.

TRIFOLD FLYERS

Suggested donation for flyers is 25¢ each (includes shipping), 15¢ each for 50 or more

The Dangers of Industrial Fats and Oils	Cod Liver Oil, Our Number One Superfood	Butter Is Better
Dangers of Vegan and Vegetarian Diets	How to Protect Yourself Against Cancer with Food	Soy Alert!
Myths & Truths About Cholesterol	Nutrition for Mental Health	Sugar Alert!
A Campaign for Real Milk	A Message to Grandparents	Vaccination Dangers
	Covid-19: Contagious Virus or 5G Microwave Technology?	

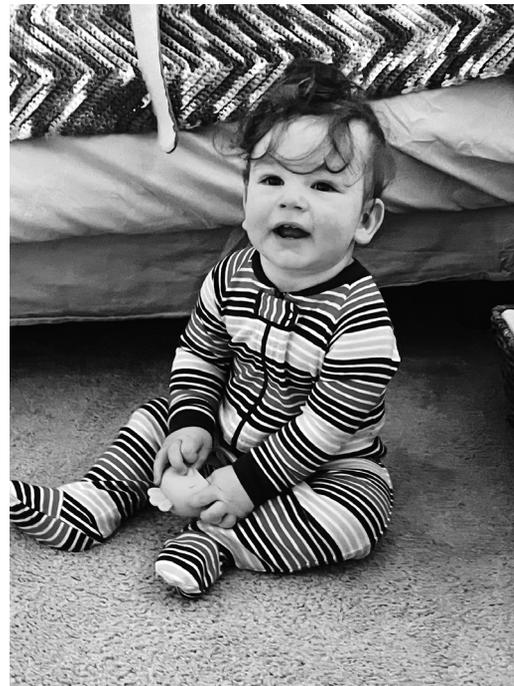
Order online at westonaprice.org or by phone (703) 820-3333 OR send checks to The Weston A. Price Foundation.

Healthy Baby Gallery



Pictured is six-month-old WAPF baby Roan, getting his spine checked and adjusted by chapter leader and Vermont chiropractor, Dr. Vickie Dubin Master. It does a baby good!

Roman John-Michael is thirty inches long and weighs twenty-three pounds at nine months. He was born by natural, unmedicated delivery and mom took cod liver oil while she breastfed. He's a hearty eater, enjoying egg yolks, liver pâté, bone marrow, sweet potatoes and sauerkraut juice! Plus raw whole milk, of course. He's a jolly baby with a full head of hair who sleeps through the night and rarely cries.



Teen Gallery: If you want to share a photo of your teen whose good health you attribute to the WAPF principles, send to info@westonaprice.org.

Healthy Grandparents Gallery: Do you have healthy grandparents in their 80s, 90s and even 100s brought up on a traditional diet? Please share their photos with us! Send to info@westonaprice.org.

Local Chapters

Local chapters help you find locally-grown organic and biodynamic vegetables, fruits and grains; and raw milk products, butter, eggs, chicken and meat from pasture-fed animals. They also represent the Weston A. Price Foundation at local fairs and conferences and may host cooking classes, potluck dinners and other activities to help you learn to integrate properly prepared whole foods into your life. Local chapters may be able to put you in touch with health practitioners who share our philosophy and goals. **IMPORTANT WARNING:** This chapter list is meant for individuals to contact a local chapter for food sources and for small farms or food producers to contact chapters near them. It is not for use by vendors and marketers. If you use the chapter email addresses to promote a product, even a free product or giveaway, we will not allow your company to advertise in *Wise Traditions* journal nor exhibit at our conference.

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WASHINGTON, DC

The chapter enjoyed dinner at Ama, the only 12-spoon restaurant in Washington, DC. Chef-owner Johanna Hellrigl served a seed-oil-free meal sourced from local farms that included einkorn sourdough bread, pâté, local beef and chicken, sauerkraut, anchovies and sardines. The event was organized by co-chapter leader Emma Wise with help from co-leaders Hilda Gore and Jessie Davis.

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LOCAL CHAPTER BASIC REQUIREMENTS

1. Create a food resource list of organic or biodynamic produce, milk products from pasture-fed livestock (preferably raw), pasture-fed eggs and livestock and properly produced whole foods in your area.
2. Provide a contact phone number to be listed on the website and in our quarterly magazine.
3. Provide Weston A. Price Foundation materials to inquirers, and make available as appropriate in local health food stores, libraries and service organizations and to health care practitioners.
4. Provide a yearly report of your local chapter activities.
5. Be a member in good standing of the Weston A. Price Foundation.
6. Sign a contract on the use of the Weston A. Price Foundation name and trademark.

OPTIONAL ACTIVITIES

1. Maintain a list of local health care practitioners who support the Foundation's teachings regarding diet and health.
2. Represent the Foundation at local conferences and fairs.
3. Organize social gatherings, such as support groups and pot luck dinners, to present the Weston A. Price Foundation philosophy and materials.
4. Present seminars, workshops and/or cooking classes featuring speakers from the Weston A. Price Foundation, or local speakers who support the Foundation's goals and philosophy.
5. Represent the Weston A. Price Foundation philosophy and goals to local media, governments and lawmakers.
6. Lobby for the elimination of laws that restrict access to locally produced and processed food (such as pasteurization laws) or that limit health freedoms in any way.
7. Publish a simple newsletter containing information and announcements for local chapter members.
8. Work with schools to provide curriculum materials and training for classes in physical education, human development and home economics.
9. Help the Foundation find outlets for the sale of its quarterly magazine.

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TULSA, OKLAHOMA

Chapter leader Joanna Francisco spearheaded a booth at the Holistic Wellness Event, the largest such event in Oklahoma. The chapter's participation proved to be a valuable way to engage with the community, share WAPF's mission (and excellent free resources), connect individuals with local farms and welcome many new members.

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CHATTANOOGA, TENNESSEE

Debbie Mize, co-chapter leader in Chattanooga, exhibited at the 2025 Homestead Festival in Columbia, Tennessee, this past June. The event hosted almost six thousand people. Families learned everything from healing arts to regenerative farming to food prep and even horseshoeing. Debbie and her husband Bill enjoyed meeting and sharing with so many new WAPF friends!



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NAVARRO COUNTY, TEXAS

An excited group of twenty-eight folks interested in local, nutrient-dense foods gathered in June for the first-ever Navarro County chapter meeting. A local coffee shop generously offered meeting space, a local farm raising Mangalitsa pigs brought some delicious pork for sampling and there were taste tests of lacto-fermented sauerkraut, sourdough cookies and crackers, herbed kefir cheese, kefir sodas and homemade bread.

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Dane & Sauk Counties: Richard & Vicki Braun (608) 495-6117 richbraun70@gmail.com
Fremont: Ruth E. Sawall (920) 850-7661
Green Bay: Aimee Hamilton (630) 441-2305, draimeehamilton@gmail.com gbwapf.com
Kenosha County: Pamela Martin (312) 286-0586, pamela423@protonmail.com
Madison & Surrounding Areas: Saritah chapter@WAPFMADison.org, chapters.westonaprice.org/madisonwi/
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Sheboygan County & South Manitowoc: Emily Matthews (920) 286-0570 realtoremilyrn@gmail.com & Cassie Wild wildc115@gmail.com [facebook.com/groups/1042122412592106/](https://www.facebook.com/groups/1042122412592106/)
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WA
Albany: Mike and Barbara Shipley 0414 351 304 shipleysorganics@bigpond.com



CHESTER, VERMONT

The chapter discussed the Fall 2024 *Wise Traditions* journal at the Chester town hall. It was a wonderful gathering of farmers, holistic health care practitioners and healthy food consumers and supporters. We love our Vermont members!

International Chapters

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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, the chapter handbook, PowerPoint presentations, business cards and more.

The Weston A. Price Foundation currently has 501 local chapters:
437 serve the District of Columbia and every state in the U.S.
except West Virginia and 72 serve 24 other countries.

LOCAL CHAPTER CHAT GROUP

Our chapter leaders have a wonderful secure platform to carry on our many beneficial discussions, developed by Jay Hamilton-Roth, the husband of one of our chapter leaders. We encourage all chapter leaders and co-leaders to join if interested in learning and growing as leaders and individuals. To join, contact Maureen Diaz: outreach@westonaprice.org.

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CO

Meadow Maid Foods, 100% grass-fed, grass-finished beef. On pasture year-round at the family ranch in WY. Production practices detailed on our website. Custom beef, Farmers markets, and food co-op in Fort Collins. meadowmaidfoods.com, (307) 534-2289.

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

GA

Broad River Beef, LLC, tender, flavorful Angus beef, 100% grass-finished, toxin-free and mineral rich. Cuts you actually use available in sizes that actually fit in your refrigerator. Produced seasonally with nature. Delivery available from Atlanta through northeast Georgia. broadriverbeef.com, (706) 310-8060.

IL

ORGANIC, HEIRLOOM, GRAINS, FLOURS, BAKED GOODS AND MEATS. Small family farm using heirloom varieties and growing methods then processing grains in a traditional manner. We accomplish this by doing everything on our farm in Dwight, Illinois. www.qualityorganic.net (815) 584-1850.

IN

DEVON BEEF, 100% grass fed, no antibiotics, no growth hormones. Full cow, 1/2 cow or individual cuts from my ranch in St. Leon, Indiana. Pastured pork, 100% antibiotic free, fed minimum amount of organic corn, 100% outdoors on pasture and woods. All meat USDA inspected. Information on how we raise our beef and pork plus important health links at abundantgreenpastures.com or Mike at (513) 646-8739.

Providence Pastures produces and shares pasture-raised, regenerative, nutrient-dense food through long-term relationships with customers. We raise grass-finished beef, pasture-raised poultry and organic eggs, pasture-raised sheep and Mangalitsa lard pigs, organic maple syrup, produce, wheat and fruit. Sullivan, Indiana (812) 572-4293. providencepastures.org.

KS

Prime Grass Farm: NE Kansas. Grass Fed + Grass Finished Beef + Hormone Free for life. Taking orders for 2025, processing included,

whole beef \$5.50/lb/hanging weight. Halves + Quarters available. Also, organic red winter wheat is available. Eli (785) 206-0350 or Steve (785) 294-0823.

KY

BEEF! Grass Fed/Grass Finished beef shares, bulk bundles and sides. Nourish your way back to health with farm fresh beef raised on pasture, sunshine, spring water and fresh air. Locally available in South-Central Kentucky. (606) 235-1473 www.FireflyFieldsKY.com or Monica@FireflyFieldsKY.com.

River Bend Farm Cerulean, Kentucky. 100% Grass fed herd shares for raw milk. Family based operation. Raymond Hoover 10488 Cerulean Road, Cerulean, KY 42215.

MD

Nick's Organic Farm, since 1979 offering quality products to Washington, DC, suburban MD, No. VA, Baltimore and Frederick areas. 100% grass-fed beef (no grain ever), pastured chicken, turkey, eggs. Using a regenerative 12 year crop rotation, we constantly move our livestock to fresh pastures to build our soils. Our animals receive only organic feed raised on our farm, no hormones, no antibiotics, no animal by-products, no GMOs. Beef and poultry liver, organ meats, fat, and bones, chicken/turkey feet, beef sausage and jerky. Hay, straw, poultry feeds, food grade grains, popcorn, stone ground heirloom cornmeal (301) 983-2167; nicksorganicfarm.com; nicksorganicfarm@comcast.net. **JOIN our mailing list** to receive **order forms** and an invitation to our annual **Buckeystown Farm Tour**.

100% soy-free chicken, eggs, pork and beef. Chicken livers, chicken feet and heads. Bacon and sausage. Raw pet milk. Raw milk blue and cheddar cheese by cheesemaker Sally Fallon Morell. **Will ship** whole cheese wheels. Southern Maryland, within 1 hour of downtown Annapolis and Washington, DC. Saturday farm tours. Store open Thursday and Friday 10-6, Saturday 10-4 and by appointment. P. A. Bowen Farmstead, 15701 Doctor Bowen Road, Brandywine, MD. (301) 579-2727, pabowenfarmstead.com.

MI

Grassfed Beef and Lamb, Pastured Pork & Chicken sold from farm or delivered monthly to your home including Grand Rapids, Big Rapids, Muskegon and more. No GMOs and no chemicals. Come visit the farm to see the real deal! provisionfamilyfarms.com provsionfamilyfarms@gmail.com.

MN

Farm On Wheels offers animals raised green grass-fed & organic. USDA inspected. Nutrient-dense beef, lamb, chicken, eggs, turkey, goose, duck, and pork, no corn or

soy or GMOs. Farmers Market year around in St. Paul, Prior Lake. Linda (507) 789-6679, farmonwheels.net, farm_on_wheels@live.com.

NC

Little Way Farm in central North Carolina offers food as it should be: wholesome, simple, and without all the junk you're trying to avoid. We believe that buying natural food should bring you peace of mind, nourish your body, and offer long term health for all of nature, including you! Our natural farming practices honor the cycles of nature. We offer local farm-pick up and home delivery in North Carolina as well as shipping to all lower 48 states. Shop 100% grass-fed and grass-finished beef and lamb, and non-GMO, pasture-raised poultry, pork, and eggs. Plus, you'll find raw honey, 100% organic and sprouted flour, rendered lard, and lard dish soap in our online store. We also offer ways to save through our subscribe & save model, or our multi-pack bulk options. Order online at littlewayfarmnc.com.

NY

Dutch Meadows brings you the finest in high-quality grass-fed meats and organic dairy products, raised in harmony with the land. Order online and choose from hundreds of farm products, **WE SHIP**. Convenient pick-up locations in NYC. (717) 442-9208 info@dutchmeadowsfarm.com - DutchMeadowsFarm.com.

Grass fed Farm Fresh food to help you achieve vibrant health by enjoying high quality, nutritious, 100% grass fed raw dairy from sheep and Jersey cows. 100% grass fed/finished beef and lamb, Soy Free pasture raised pork, turkey and chicken, and lots more. Order online and utilize our convenient home delivery or pick up locations. Shop farmmatch.com/pleasantpastures or call (717) 768-3437.

100% Grass-fed beef, pastured non-GMO pork and eggs, pure NY maple syrup, goat's milk soap. Visit our farm stand. Also 100% whole grain sourdough bread (pre-order only) (315) 651-6862. Walnut Hills Farm 440 Pleasant Valley Road Lyons, NY 14489.

Wyndfield Acres: diversified organic family farm in the Adirondack foothills overlooking the Kuyahoorra. We offer 100% grassfed/finished beef, lamb; pastured, non-GMO Mangalitsa pork; pastured, organic-grain-fed poultry/eggs. Visit our farm store: healthful ingredients, herbal tinctures, salves, more. Little Falls, NY (315) 823-0171.

OH

COPIA FARM, Dan & Caitlin, Short drive from Columbus, Johnstown Ohio. Farm store open daily, 9 am-7 pm. Raw milk

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herdshares, grass-fed meats, pasture-raised eggs, organic produce, organic sourdough bread & more! Regenerative, GMO-free, organic, paleo. (614) 915-9269, CopiaOhio.com.

OR

Grass-based biodynamic raw milk dairy offering Jersey Hi-creamline milk, cream, golden butter, cottage cheese and aged cheeses. Soy-free veal and pork seasonally. On farm sales and membership club. **Can ship.** Sherry and Walt (541) 267-0699.

PA

Dutch Meadows brings you the finest in high-quality grass-fed meats and organic dairy products, raised in harmony with the land. Order online and choose from hundreds of farm products, **WE SHIP.** Visit our farm store. 694 Country Lane Paradise, PA. (717) 442-9208 info@dutchmeadowsfarm.com – DutchMeadowsFarm.com.

Enjoy eggs from ducks that are on better pastures. Safe nutrition, direct from the wilds of God's creation. Call or text Cleason Weaver at (717) 385-2410 to order or visit: 501 Shippensburg Rd. Newville, PA 17241.

GAP VIEW FARM MARKET Raw milk, raw milk cheese, cream butter, eggs, including duck eggs and fresh vegetables from our chemical free farm. Call (484) 667-1382 or visit our farm market in the heart of Lancaster County, PA at 5230 Newport Rd, Gap, PA 17527.

Hobby Ag LLC: Your Homesteading Neighbor. We offer 100% grass-fed: beef, yogurt, raw milk & cheese; pasture-raised, corn & soy-free chicken & eggs; Alumi-Coops. Located in Lykens, PA. We offer pick up & delivery! Visit hobbyag.com, call (717) 805-9815, or email raymond@hobbyag.com.

Choose from our selection of grassfed beef and pastured soy-free pork, chicken and eggs. **We ship.** Open Monday through Saturday. Closed on Sunday. Locust Grove Farm, 619 Locust Grove Road, Port Trevorton, PA 17864.

Quackin' Egg Hollow, New Holland, PA produces pastured, chemical-free duck eggs and quail eggs, corn and soy free. Now offering Einkorn cereal, gluten free ancient grains, sprouted flour and oats, plus our own baking mixes. **We ship.** Call or text (717) 656-0423. Michelesmixins.com.

Raw, unheated HONEY from grass-based PA farm, **free shipping.** Bees not moved for pollination. Seasonal varieties. 5 lb jug \$49, 10 lbs \$92. Order at www.owensfarm.com, send check, or stop by. Owens Farm, 2611 Mile Post Rd. Sunbury PA 17801 info@owensfarm.com 570-898-6060. Continental US only.

Stone Meadow Farms offers raw milk cheese from our grass-fed dairy. 100% grass-fed beef and pastured pork. Everything is raised outdoors and rotated on pasture with no antibiotics, hormones, GMOs or soy. **We ship cheese.** Woodward, PA (814) 349-5182.

TN

Martin Family Farm, nestled in the rolling foothills of the Smokies, offers a wide variety of fresh in-season food. From our pastured meat chickens, grassfed beef, organic, soy-free pork and grassfed lamb, to our several acres of intensively managed, permanent-bed gardens, and our 100% grassfed raw milk, 10-cow Jersey dairy, we find great fulfillment in providing nourishing foods produced in a healthy, diverse, vibrant and flourishing ecosystem. Come see us at: Martin Family Farm, 959 Country Road 423, Athens, TN 37303.

Raw A2A2 Goat Milk: Experience the delicious health benefits! We supplement our pastured dairy goats, laying hens and meat chickens with organic grains. Purebred LaMancha breeding stock available. Come visit: Littlefield Farm 1841 County Road 423, Athens, Tennessee 37303.

VA

Grass fed Farm Fresh food to help you achieve vibrant health by enjoying high quality, nutritious, 100% grass fed raw dairy from sheep and Jersey cows. 100% grass fed/finished beef and lamb, Soy Free pasture raised pork, turkey and chicken, and lots more. Order online and utilize our convenient home delivery or pick up locations. Shop farmmatch.com/pleasantpastures or call (717) 768-3437.

RUCKER FARM, Flint Hill, Virginia. We're Isabelle and Garrett, raising nutrient-dense food on our family farm. We offer grassfed beef, pastured pork, and non-GMO chicken and turkey. Order online for farm pick-up or delivery. Learn more and join our newsletter at ruckerfarm.com.

Salatin family's Polyface Farm has salad bar beef, pigaerator pork, pastured chickens, turkeys and eggs, and forage-based rabbits. Near Staunton. **Nationwide delivery available.** Call (540) 885-3590, polyfacefarms.com.

WI

Glyphosate-free farm offers high quality 100% chemical free spelt berries and spelt puffs. Our products are grown on our organic farm and tested glyphosate free. **We can ship** our products to your doorstep. We offer a wholesale discount to retail stores. For information write to: William Yoder 17334 County Highway D, LaFarge, WI 54639.

WY

Meadow Maid Foods, 100% grass-fed, grass-finished beef. On pasture year-round at the family ranch in Goshen County. Production practices detailed on our website. Custom beef, Cheyenne farmers markets and local delivery. (307) 534-2289, meadowmaidfoods.com!!

APPRENTICE/EMPLOYMENT

Internships: 300-acre family farm in Live Oak, Florida with 20 years of success and over a half million in gross sales wants to share their success secrets. We have on-farm housing to rent and classes in butchery, cow and goat milking, pastured poultry, pigs, permaculture, gardening, silvopasture and broad acre food forest, and more. We offer internships with hands-on experience for a weekend, week long, month or 6-months. Contact us for prices and bookings thisisdennis@startmail.com.

Seeking remote job! Career path in food systems, tribal health, chronic disease prevention and philanthropy. Background in project management, administrative operations, client services and event logistics. Also open to part-time or project-based opportunities. Please reach out: angelaboone@gmail.com or <https://www.linkedin.com/in/booneangela/>.

CRAFTS & CLOTHING

Beautiful crafts by local artists. Keep your gift-giving dollars in the USA. Alpaca blankets, socks and yarn; hand painted decorations, paintings by award-winning artist David Zippi; handmade quilts. Exclusive source of Nourishing Traditions posters. Saturday farm tours. Store open Thurs-Sat 10-6 or by appointment. P. A. Bowen Farmstead, 15701 Doctor Bowen Road, Brandywine, MD. (301) 579-2727, pabowenfarmstead.com.

DVDS/ON-LINE VIDEOS/BOOKS

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!**

The Power of One-Third (1/3 sleep, 1/3 daily activities, 1/3 me), a 52-week prescription for a **Balanced Life.** Embark on a journey to trust your body-mind-spirit, make lasting life changes and meet a NEW YOU. Curious? Contact mariola@powerofonethird.com.

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View all UK & Irish WAPF conference videos, many European speakers never seen in the USA, in our large and growing video library that will host and fund future events. Subscribe for just £2 a month. (about \$2.50). <https://westonaprice.london>.

FARMING VENTURE/LEASE/SALE

Christian homesteading couple in their 30s with two children, seeking connection with a senior farm couple who needs a family to continue working the farm. Willing to relocate. Miller Family 15564 Hemlock Point Road, Chagrin Falls, Ohio [44022] miller.irene48@proton.me (440) 321-0935.

Dairy for sale in Serbia. The Pirot dairy facilities cover an area of 5.700 m2, and the land is 11.400 m2. See video: https://www.youtube.com/watch?v=_MwiIX5cG0o Contact: direktor@pakpromet.com.

For sale: Weston Farm in Glen Arm, Maryland, 73 acres of pasture, forest, fields, gardens, creek and views located in preserved Long Green Valley, MD. Former award winning sheep farm, perfect canvas for a new generation of talent and ambition, endless agriculture potential. Three homes featuring over 10,000 sq ft of living space and over 12 bedrooms total and many out-buildings. Poultry, dairy, sheep, vegetable gardens, food production are all possible. Very rare property in the greenbelt, 3 owners in 120 years. Contact Michael Sutton, Realtor Berkshire Hathaway Homesale Realty Office: 410-583-0400 Cell: 410-258-8664; Licensed in Maryland.

Have you ever dreamt of owning a farm school and teaching cooking, butchering, farming, ceramics and blacksmithing? Now you can. High in the mountains of southern Vermont we are selling a stunning working farm in our farming community. Text (917) 363-1946.

RESEARCH/OUTREACH

Do you have a child with a chronic health or developmental condition? Documenting Hope invites you to join **Healing Together**, a private online community where parents and caregivers can connect, support one another, find resources, and embark on a healing journey together. <https://healing.documentinghope.com/register/>.

SERVICES/SUPPLIES

Free Gorgeous Scobies while supplies last! These scobies have only known Just Panella sugar for the extra nutrient content. The only reimbursement is the cost of shipping/handling (they will be coming from Texas). The scobies will be freshly vacuumed pack from the "hotel" the day of shipping with freshly brewed tea. Text to order and if you need a successful recipe: Toni Russell, RN, (469) 337-3799.

HELP NEEDED TO SAVE a small regenerative family farm. Farmer and chapter leader (with first baby) in rural farmland of SW Virginia are being harassed and sued by nearby wealthy vacationing landowner. We have milk herdshare, meatshare, and LGDs. The lawsuit, begun in 2023, has been non-suited and refiled in an attempt to remove our insurance attorney support. FTCLDF is unable to assist. Need legal help, pro bono attorney, or can pay limited \$ for support while pro se. Email hello@grasstotable.com.

Intended parent in need of a surrogate gestational carrier. Please contact Justin Allen at justin.allen4email@gmail.com.

Urgently Needed: Dental Help. Woman 75 years old with a very small fixed income. Amalgam tattoo inserted 50 years ago. Decay, missing teeth, chronic sickness. I stay in Texas and CA with family. Could Airbnb near dentist. Magathy88@yahoo.com.

TRAVEL/LODGING

Alpine Hiking and Culinary Seven-Night Summer Retreat in the Lötschental Valley, Switzerland in the footsteps of Dr. Weston A. Price, with chef-author Tania Teschke June 27-July 4, 2026. Support the communities there with your visit and revitalize your senses! Contact Tania at info@bordeauxkitchennaturals.com and see the tour at bordeauxkitchen.com.

Book your stay at Mulberry Lavender Farm and B&B in Tennessee to experience a simpler life and watch heritage animals thrive. Visit the farm store or stay in the Historic Farmhouse or Cottage, with all-organic farm breakfast. Book online at mulberrylavender.com.

SOUTH CAROLINA RENTAL - Waterfront Lake Hartwell with spectacular view. Fully furnished 2 bedrooms, 1 bath, kitchen, great room, screen porch and large patio. Adults only, no pets. Short term 3-6 months. \$1890/month, security deposit. Rural area with raw milk close by, near Anderson, SC. Call (864) 292-5001 Leave Message.

SOUTH CAROLINA RENTAL - N. Myrtle Beach. Saltwater view, channel-front home, 5 minute walk to beautiful beach. Fully furnished 2 bedrooms, 1 bath, kitchen, great room. Adults only, no pets. Short term 3-6 months. Dock, boat ramp. \$1890/month. Security deposit. Call (864) 292-5001 and leave message.

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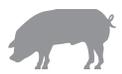
**Our cows are on a high forage diet and are not fed grain
to ensure high-quality better tasting and more nourishing food.**

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chicken, duck, goose, pork, and beef • fermented vegetables including sauerkraut and
kim-chee • sprouted breads including sourdough and gluten-free.



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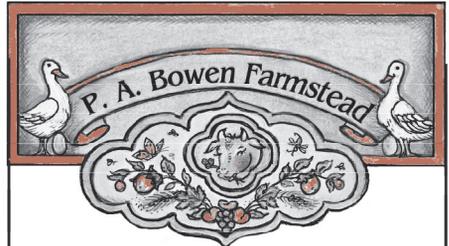
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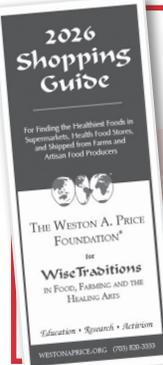
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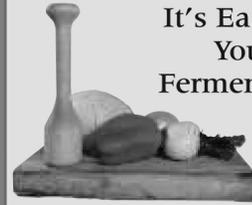
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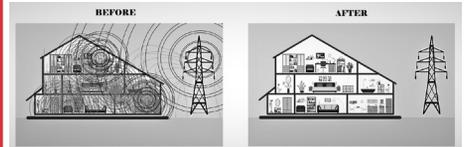
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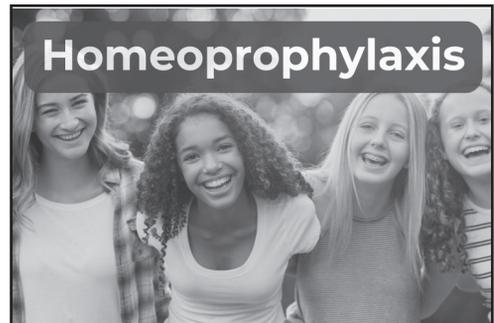
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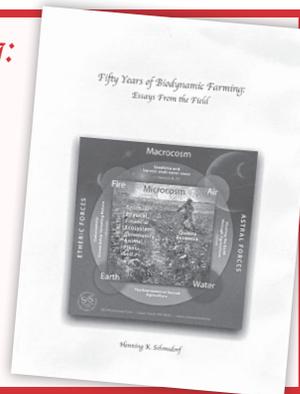
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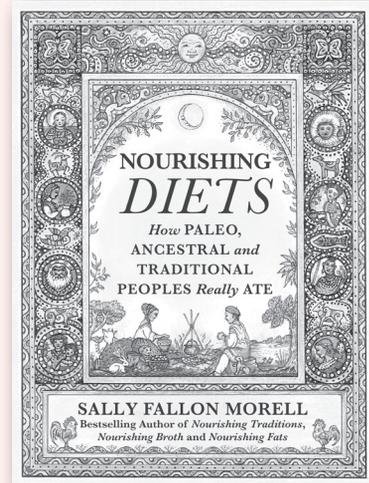
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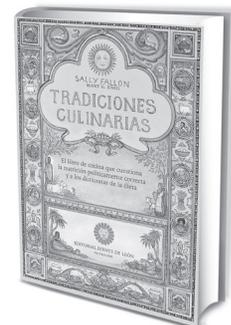
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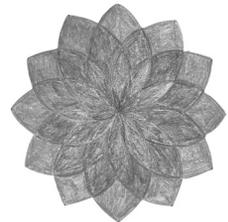
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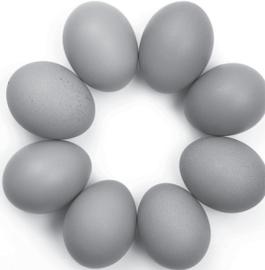
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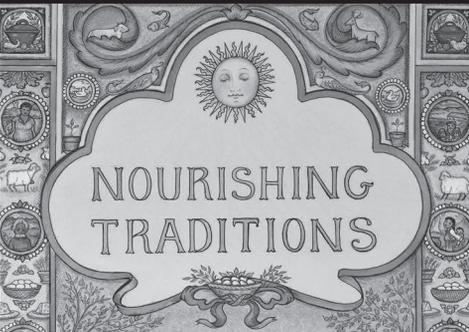
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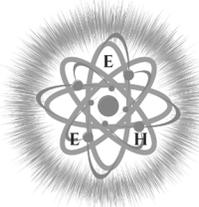
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