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Wise Traditions

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

Volume 26 Number 2 Summer 2025

FEATURES

DEPARTMENTS

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IN FOOD, FARMING AND THE HEALING ARTS

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WiseTraditions is mailed quarterly to members of the Weston A. Price Foundation

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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

I always look forward to our yearly conference, and I am especially excited about our program this year. We will be hosting several very special guests who have important information to share.

First is the virus-slaying duo, Drs. Mark and Samantha Bailey. This will be a great opportunity to hear an amazing duo share their wisdom on the nonexistence of viruses. Each will be giving two talks—in one, Samantha will share her thoughts on the causes of Lyme disease. For reasons beyond their control, they will not be able to travel but will give their talks live-stream from New Zealand.

Next, we have Professor Gerald Pollack, who spoke to an overflow audience a few years ago on the fourth phase of water. He will address the same subject this year and will also give a talk on his recent focus, how birds fly. If you think they fly on air currents, you are in for a surprise. Gerald represents the cutting edge of science, and we are privileged to host him as a speaker.

Then we have Jim Stephenson, expert on vitamin D. He will present the dangers of vitamin D supplementation—something we have been warning about for a long time—plus do a deep dive into the workings of the sunshine vitamin.

Other heavy hitters are Nina Teicholz, Manel Ballester-Rodés, Lee Merritt, Andy Kaufman and Sasha Latypova.

At the opposite end of the spectrum, we have a great collection of speakers on "making it practical." You'll hear about making sourdough bread, preparing organ meats, kayaking up the coast of Greenland, healing with clay, special anti-cancer ferments, the GAPS diet, the glories of cheese, non-toxic dentistry and even a talk on teaching the Wise Traditions principles in high school home economic classes!

Conference veterans joining us to share their knowledge include myself, Tom Cowan and Louisa Williams. There will be talks on farming and on health freedom as well. A final treat is a presentation on holographic blood by Josh and Adam Bigelson.

I don't think we could put together a more well-rounded collection of speakers to celebrate our 25th year…all to the accompaniment of wonderful food!

To register, visit wisetraditions.org. The website also provides information on volunteer spots, CEUs, our children's program, ride share and room share. And it's not too late to sign up to be an exhibitor if you so desire.

In short, we are looking forward to our best conference ever and I hope to see you there!

Letters

FRACKING OR WOOD FIRE?

There is an old saying: what goes up must come down.

Most things on earth generally balance out in the end, and this applies to the populations of living creatures. We know from ecology that all populations rise and fall. A common pattern is the numbers slowly rise over a long time, until a population is very abundant, at which time, for numerous reasons, there is a dramatic drop. The very small population that remains then begins a slow rise again. Many signs point to our human population being at the great turning point before it begins to drop.

This cycle is probably inevitable. "To everything there is a season and a time to every purpose under heaven." However, we poor humans seem to be intent on damaging our environment by the way we live, as to hasten our downfall as much as possible. The young lady Greta Thunberg said to all of us, "How dare you?!" She has a point. Watch a sunset some quiet evening while your children or grandchildren play in the backyard. Pretty special, isn't it? Are we sure we are going to "improve" it?

I'm afraid that Rose Bohmann in her letter (Summer 2023) is right about fracking. Fracking is a good example of many of our methods for getting along in the world. There can be no doubt that fracking does a lot of harm. We can be sure, also, that we do not know all of the harms. This is often the way with our technologies; many of them are Faustian bargains where the immediate benefits are astonishing but the ultimate price is far too high. It has been said from time immemorial that we reap what we sow. And this is true even when we do not know what we are sowing.

It may well be that in the end the best form of energy for our homes is a small wood fire in a hearth.

Davis Ellis
Portsmouth, Rhode Island

Americans depended on wood fires in the hearth up until the discovery and use of oil and gas. By 1900, the immense natural forest of the eastern half of the U.S. was gone, taken out to make hay fields to feed horses and mules, and burned for warmth. Today, thanks to oil and gas, it has rebounded to about 30 percent coverage.

NO MENTION OF VACCINES

In his recent press conference when HHS Secretary Kennedy talked about identifying the environmental toxins causing the continually increasing rate of autism, he did not use the word "vaccines."

Not uttering the main culprit causing the autism epidemic is like not uttering the word thalidomide in a press conference about babies in the fifties and sixties born with deformed and missing limbs and ears after the mothers took thalidomide while pregnant. Many also died in the womb from thalidomide, just as babies die in the womb today from the vaccines given to pregnant women.

Not issuing an immediate moratorium on the main driver of the autism epidemic while acting like you are concerned about stopping it undermines one's credibility and integrity.

It is reprehensible to ignore the fact that we have the evidence, in spades, that vaccines cause autism—in scores of studies and in millions of eyewitness parental reports. What if people had agreed to wait thirty-five years to admit that thalidomide was causing severe deformities, deafness, tragic birth defects and miscarriages? Somehow, people can see the evil of that, but not of continually waiting to admit what vaccines are doing to children.

Defending this constant sweeping of vaccines under the rug, and those who do the sweeping, defies comprehension if one truly cares about stopping the harming and killing of babies in the womb, newborns, infants, toddlers, children and teens, which is happening every single day without pause via vaccinations.

I have been working to stop this vaccine devastation and resultant autism epidemic for nearly thirty years now—thirty years! I have heard time and again that it is "not quite the right time" to speak the unadulterated truth about what happens to children after their vaccinations, which continues to happen to children every single day—life-altering, life-destroying, life-ending things! Wrong! The right time has come and gone for decades now, going back to before the terrible 1986 Act that gives those who manufacture and administer vaccines immunity and, as that right time has been continually postponed and awaited, millions more children have been vaccinated into the devastating, independence-stripping world of autism. To hear Kennedy state that air, water, food additives, mold, obese parents, old parents, diabetic parents, medicines and ultrasounds should be considered as potential culprits in

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the autism epidemic, but not mention vaccines, was infuriating. Every time the word vaccines is omitted from the conversation concerning the autism epidemic constitutes an egregious, inexcusable and unacceptable act.

If we the parents of the vaccine-injured and vaccine-killed are willing to accept the omission of vaccines from the conversation on autism, then we, too, are complicit in the cover up.

Laura Hayes
Staunton, Virginia

BETTER TRACKING DATA?

Robert Kennedy, Jr, says we need better VAERS tracking data. Wait, improve the tracking of injuries as a priority? No one should be injured or killed by a so-called preventive pharmaceutical intervention. One death, one injury—shut the entire vaccination model down! What does it matter if one or one hundred thousand are killed or maimed? All it takes is one! Shut it down!

Stop vaccinations! Vaccines are poisons that cause either a slow or quick kill. That is the reality. Enough already! Give us loving arms to be embraced in, clean air, clean water, real milk, real food and the freedom to wander without reservation through fields of wildflowers and clover in the spring—then we will know real health and what it means to be a human being!

Beth Ingham
Wichendon, MA

RAW MILK FOR ASIANS

I'm Vietnamese and growing up my dad never drank milk because he was lactose intolerant. Like many Asians, he would experience uncomfortable symptoms whenever he consumed pasteurized milk, so dairy was something he completely avoided. My husband, who is Chinese, also struggles with lactose intolerance and has always had to steer clear of pasteurized milk as well. However, everything changed when we introduced raw milk into our household.

To our surprise, both my dad and my husband can now drink raw milk without any issues at all! My dad has even grown to love it—it's become a regular part of his diet, which is something I never thought I'd see. This has been such a revelation for us because it's the first time they've been able to enjoy dairy comfortably. I can only attribute this to the difference between pasteurized and raw milk. Raw milk contains naturally occurring enzymes like lactase and beneficial bacteria that seem to aid digestion, making it far easier to tolerate compared to pasteurized milk, which loses these enzymes during heat processing.

This experience has been eye-opening for our family. It's amazing how traditional, unprocessed foods like raw milk can transform how our bodies respond to dairy—even for those who have struggled with lactose intolerance their entire lives.

Now, we've taken things a step further by incorporating fermentation into our routine. My kids absolutely love Vietnamese yogurt (sữa chua), even more than drinking raw milk on its own! Fermenting has become a big part of how we use the gallons of raw milk we get daily during the summer on our homestead (we raise Jersey cows). I often think about how Asians didn't traditionally have access to Jersey dairy cattle or fresh cow's milk in large quantities. When I talked to my mom about this, she mentioned that growing up in Vietnam, the only form of milk she had was sweetened condensed milk introduced by the French. There was water buffalo milk but it was very expensive.

Since we don't drink or ferment all the raw milk ourselves, we've found creative ways to use its by-products. Some of it goes to our animals—sharing raw milk with them has noticeably improved their gut health and overall vitality. We also share surplus milk with members of our local community who are curious about raw dairy or are looking for healthier options for their families. It's been such a rewarding experience to see how this simple yet nourishing food can benefit not just us but also others around us—both human and animal alike!

Sophia Eng, Chapter Leader
Hawkins County, TN

MSG IN REDUCED-FAT MILK

Here's a terrible fact we all need to know. The PMO (Pasteurized Milk Ordinance) states that when you remove the fat from milk, you have to replace the fat-soluble vitamins A and D. Apparently, these added vitamins need to be stabilized with a chemical compound to keep them miscible in an aqueous solution. This compound contains MSG! This is one good reason (among many) not to drink reduced-fat or skim milk products.

Beth Verity
Houston, Texas

Letters

THE SCHOOLING DEBATE

I am writing in response to Sally Fallon Morell's book review of *Commonsense Child Rearing: Unconventional Wisdom for a Nourished Childhood*. Recognizing that neither Dr. Cowan nor Sally have been in the midst of raising young children in the last decade, I feel compelled to respond to the book review from the Spring 2025 *Wise Traditions* journal.

I'll admit my bias immediately: I was educated at home, as was my husband, and we do the same with our children. So, hopefully without being argumentative, I'd like to offer a bit in defense of educating children at home, as well as express my confusion about whether or not to read Dr. Cowan's book.

Most of Sally's argument against the book, which received a "Thumbs Up" review, was that children educated by their parents have fewer opportunities for extra-curricular activities, such as sports or marching band. In defense of the excellent education provided by our parents, I must make the statement that my husband and I, and our siblings, engaged in sports, music lessons, dance, theater, art, etc. At seventeen, I became the local clogging (an American folk dance style) instructor. As a boy, my husband played baseball through the local public school. Today, my husband, at forty, is an expert in his field of forestry due to his dad, a forester, taking him along to work as a boy.

Now, I said I wasn't here to argue in favor of home education, so I'll get to the real point of my letter. Two thirds of this all-thumbs book review is an argument against what the book is apparently promoting. If writing a book review, please focus on what the book says, not multiple paragraphs on how you disagree with the statements made in the book! It leaves the reader confused and unsure whether or not to pursue the title.

Many WAPF families are choosing to educate their children at home. We so appreciate the resources and education from the Weston A. Price Foundation, Nourishing our Littles and Wise Traditions podcast. We'd love your support, too!

Kathleen Majors
Idaho County WAPF Chapter Leader
Kamiah, ID

It is not in the mission statement of the Weston A. Price Foundation to support any particular type of education. I made it clear in the review that I was expressing my own opinion and drawing on my experiences as a teacher trained in remedial reading instruction. I mainly disagreed with Tom's assertion that schooling was not important and that children could learn to read on their own. The rest of the book was excellent.

DELICIOUS SOURDOUGH BREAD RECIPE

I devour every issue of the journal, and so does my daughter. She works at a coffee and tea shop that follows many of your principles in the tiny town of Lisbon, Ohio.

I have a delicious sourdough recipe for Kelley the Kitchen Kop. I've been making it for eleven years, and it makes perfect sliced loaves for sandwiches, toast, toasted cheese and much more! I feed my starter with unbleached organic white flour, so this recipe turns out to be about one-third white flour.

2 cups active stater *1 cup raw milk* *1/2 cup water*
1/4 cup honey *1/4 cup melted butter* *3 teaspoons unrefined salt*
5 cups freshly ground spelt flour or wheat flour

Mix all ingredients except salt. Allow dough to rest for 20 minutes. Add salt and knead for 5-10 minutes, or 12 minutes in a Bosch mixer. Add flour as needed, just so it's not too sticky, but not dry and stiff. Place dough in a greased bowl, cover with a dish towel, and let rise for 4 hours or until doubled.

Divide dough into two pieces and place in two greased bread pans, 8 1/2" × 4 1/2" × 2". Let rise again until doubled. When dough has risen, carefully slash the top. Bake at 400 degrees for 30-35 minutes.

Call the family in for hot bread with plenty of butter! This also makes delicious sandwich buns and cinnamon rolls. I double this batch every time I make it.

Wendy Weaver, Salem, Ohio

Caustic Commentary

Sally Fallon Morell takes on the Diet Dictocrats

GLYPHOSATE AND FERTILITY

Glyphosate—the main compound in the herbicide Roundup—is the chief ingredient in 19 percent of all herbicides used globally, with over two hundred million pounds sprayed annually across America. Although the industry claims that glyphosate is safe, the herbicide is actually harmful to our health in many ways—it disrupts the gut microbiota, substitutes for glycine in glycine-containing enzymes, deranges healthy collagen production and binds tightly to toxic metals like aluminum, depositing them in the intestinal and blood-brain barriers and making these tissues more porous. Now it turns out that glyphosate can cause infertility in several ways. Glyphosate disrupts estrogen and follicle-stimulating hormone (FSH), which is required for ovulation and egg maturation. It also raises testosterone and progesterone, leading to ovarian tissue damage and conditions like polycystic ovary syndrome (PCOS) and endometriosis. Glyphosate exposure during pregnancy can cause damage to future offspring. In men, glyphosate exposure can damage Leydig cells and the production of testosterone. This is one reason why it is so important to avoid industrial seed oils, which are heavily sprayed, and conventional wheat and legumes, which are sprayed with the herbicide as a desiccant just before harvest (Mercola.com April 22, 2025).

GLYPHOSATE AND THE LIVER

There's more. In addition to killing fertility, glyphosate raises the risk of chronic liver disease. These are the review findings of more than forty scientific studies published over the past seventeen years. Higher urinary levels of glyphosate are linked to a higher risk of fat buildup in the liver, liver scarring and more liver enzymes in the blood, indicating injury and inflammation. In a long-term study of childhood exposure to the herbicide, youth ages five to eighteen with a twofold increase in glyphosate breakdown products in the urine were more likely to develop liver damage at age eighteen. In short, soaring rates of chronic liver disease match the rise in glyphosate exposure (*Environmental Toxicology and Pharmacology*, April 28, 2025).

EMBARRASSING FINDINGS

The Cleveland Clinic is a bastion of conventional medicine and naturally promotes the flu vaccine to its employees every year. But a Cleveland Clinic study, titled "Effectiveness of the Influenza Vaccine During the 2024-2025 Respiratory Viral Season," found that those who got the jab were more likely to get the flu than those who refused! Among over fifty-three thousand employees, 82.1 percent had received the influenza vaccine by the end of the study. In an analysis adjusted for age, sex, clinical nursing job and employment location, the risk of influenza was 27 percent higher for the vaccinated compared to the unvaccinated. Of course, embarrassing results like this call for damage control. According to Robert H. Hopkins, Jr., medical director for the National Foundation for Infectious Diseases, "The Cleveland Clinic study does not evaluate the primary benefit for getting vaccinated against influenza: reducing one's risk for severe illness, hospitalization and death." (Nevertheless, the new HHS administration pulled the CDC "Wild to mild" flu vaccine campaign a few months ago.) Hopkins said he "completely" disagrees with the social media post calling for the flu vaccines' removal from the market. "That action would result in more disease and death from flu," he said. Nabin Shrestha, a physician and co-author of the study, said that although the results found an increased risk of influenza among vaccinated participants, the authors understood that the increased risk "could have been from an unrecognized factor," and, therefore, they did not conclude that the vaccine increases infection risk. "Overall, the flu vaccine is an important public health tool," he said (politifact.com, April 11, 2025).

TRAGIC FINDINGS

Dr. Paul Thomas, MD (retired), was a fellow of the American Board of Integrative and Holistic Medicine and a diplomat of the American Board of Addiction Medicine. During an interview with CHD.TV, Thomas disclosed an alarming statistic: a tragic 97 percent of all sudden infant death syndrome (SIDS) deaths happen within ten days of the child's receiving a vaccination. The remaining 3 percent of SIDS deaths happen between ten and twenty days after vaccinations—these findings can be interpreted as showing that vaccines cause 100 percent of all SIDS cases. Thomas examined six datasets in studies that looked at SIDS, examining when the infant died relative to when they were vaccinated. In one dataset, 97 percent were in the first ten days after the vaccine. In the other datasets, 75-90 percent of the SIDS deaths

happened in the first week after the vaccines. "So, it's real clear," says Thomas, "You get a vaccine, your infant dies." Moreover, in the studies comparing vaccinated and unvaccinated children, "we know without a doubt that things like neurodevelopmental concerns, learning disabilities, ADD, ADHD, autism, we know they're clearly linked to vaccines. The more you vaccinate, the more likely you are to have these problems." Moreover, "The vaccinated will get more ear infections, more sinus infections, more lung infections. The more we vaccinate, the sicker our kids are" (slaynews.com, April 14, 2025).

DEATH BY VACCINATION

At her pediatric "wellness" appointment, the nurse said she needed to "catch up" on missed vaccines from her six-month appointment. One-year-old Sa'Niya was given six shots for twelve vaccines. Twelve hours later she was dead. According to Sa'Niya's grandmother, the girl's mother was uncomfortable with her daughter receiving so many shots at once, but the nurse became angry and said, "She needs these shots, You got to give her these shots." Within a few hours, the infant had a seizure and, at the hospital, four more seizures before going into cardiac arrest. Unfortunately, with such a full vaccination schedule, getting multiple "catch-up" shots at a "wellness" visit is not unusual. Even if the parents have kept up with the schedule, most babies are potentially given around nine vaccines at their one-year visit if the provider is following the Centers for Disease Control and Prevention's (CDC) Child and Adolescent Immunization Schedule. This schedule calls for seventy-two doses of vaccines from pregnancy to the age of eighteen. Not a single study exists that looks at the safety of two or more vaccines given together (childrenshealthdefense.org, March 31, 2025).

TATTOO DANGERS

Tattoo inks contain heavy metals like cadmium, cobalt, mercury and chromium, along with nasties such as propylene glycol. Tattoo ink is known to transfer from skin to blood and accumulate in nearby lymph nodes. Researchers in Denmark have established a Danish Twin Tattoo Cohort to see whether tattoos have more serious effects. Comparing tattooed and non-tattooed twins, they found that skin cancer and lymphoma were more frequent in those who had tattoos larger than the palm of a hand. Said the researchers, "We are concerned that tattoo ink interacting with surrounding cells may have severe consequences (*BMC Public Health* (2025)25:170).

EAT YOUR SAUERKRAUT!

A study out of UC Davis has confirmed what we at WAPF have known all along: that lacto-fermented foods like sauerkraut are good for our health. The researchers compared raw cabbage, fermented sauerkraut and the leftover brine from the fermentation process. The results showed that sauerkraut helped preserve the integrity of intestinal cells, while raw cabbage and brine did not. They found no difference between store-bought and lab-made versions. Said study author Maria Marco, "Some of the metabolites we find in the sauerkraut are the same kind of metabolites we're finding to be made by the gut microbiome, so that gives us a little more confidence that this connection we found between the metabolites in sauerkraut and good gut health makes sense." The study indicates that sauerkraut can protect against inflammation and make our digestive tract more resilient. "A little bit of sauerkraut could go a long way," said Marco, "We should be thinking about including these fermented foods in our regular diets and not just as a side on our hot dogs"—something WAPF has been saying for twenty-five years (*Applied and Environmental Microbiology*, 7 April 2025).

VITAMIN C FROM GUT BACTERIA

A 2013 article, "Bacteria as vitamin suppliers to their host: a gut microbiota perspective," summarizes what we know so far about the production of vitamins by gut bacteria (*Curr Opin Biotechnol*. 2013 Apr;24(2):160-8). These friendly critters can produce most of the B vitamins—biotin, riboflavin, pantothenate, thiamine and folate—but the real surprise is ascorbate, vitamin C! Scientists have long thought that human bodies cannot produce vitamin C, but that's one of those beliefs that needs revisiting. The bacteria *Corynebacterium glucuronolyticum* has an ascorbate biosynthesis pathway. This species has been linked to human urogenital

infections and so is considered "pathogenic." But maybe we need to reinterpret urogenital infections as the body's need for vitamin C, to which the helpful *Corynebacterium* respond with "overgrowth."

BRAIN TUMOR CLUSTER

A startling cluster of brain cancer cases has occurred at Newton-Wellesley Hospital in Massachusetts. As many as ten nurses working on the fifth-floor maternal care ward have received a brain cancer diagnosis within just a few years. The first suspect is, of course, the mRNA Covid shots which employees are "highly encouraged" (that is, forced) to take—and all these nurses did take the Covid shot—but there could be another culprit. What are the levels of EMR on that unit—and how do they compare with other units? Is there a cell tower right outside? Are the nurses using their individual cell phones rather than an old-fashioned intercom system? What about all the high-tech gadgetry? The hospital claims they did a thorough investigation and found "no environmental risk," but did they measure levels of EMR on the ward—and the frequencies and power densities to which the nurses are exposed (thepeoplesvoice.tv, March 29, 2025)?

THE PROTEIN RAGE

According to the *Wall Street Journal* (April 19, 2025), Americans these days are protein-obsessed. As an example, they describe the diet of a twenty-eight-year-old sales rep who eats six eggs every morning, a smoothie with protein powder for lunch and a pound of red meat for dinner. The eggs and steak are real foods, but unfortunately, many people are getting their "protein" in processed food products containing protein powders. Food makers in 2024 introduced ninety-seven products with "protein" in the brand name. These include a nasty-sounding protein chip made from chicken breasts, egg whites and bone broth, cookie dough and mint chip-flavored ice cream tubs with thirty grams of protein each, brightly colored protein candy with the protein equivalent of eating a half cup of cottage cheese per bag of candy, and protein-infused beverages including sodas and fruit-flavored "protein water." What Americans—including American nutritionists—don't understand is that eating protein calls on the body's reserves of vitamin A and can rapidly deplete this vital nutrient. That may be why a recent study found that consuming more than 22 percent of daily calories from protein can increase the risk of atherosclerosis (nature.com, February 19, 2024); and protein overload is a known threat to kidney health. When will it finally sink in that there is no substitute for real food, with a traditional mix of protein, carbs and fats—with fats predominating.

ALTERNATIVE PROTEIN BUST

Remember when Beyond Meat fake products showed up in your local supermarket? Accompanied by what must have been one of the most intense publicity campaigns in history, products from companies such as Beyond Meat and Impossible Burgers appeared in grocery stores, on menus and at fast food outlets like McDonald's and Chipotle. No longer. Three years later, products like McPlant burgers and plant-based chorizo are absent from the grocery aisles and the menus. As real-food advocate Nina Teicholz puts it, "Consumers are turning towards real food, especially dairy, meat—and even red meat, which is an astonishing rejection of the elite opinion on every front—the media, doctors, nutrition experts, public health agencies, and an abundance of vegan A-listers." Yet despite consumer rejection of fake, meat-like substances, the federal government is still investing in cell-based, lab-cultured meat, to the tune of thirty-two million dollars in government grants, with the promise that it is better for the environment. But a 2023 study by UC Davis authors found that several previous "life-cycle assessments" aiming to calculate the lab meat's impact on emissions had been flawed, because the models did not account for factors including the mining of metals needed for bioreactor construction, the removal of endotoxins produced by "gram-negative" bacteria and the process of "purification" (*ACS Food Science & Technology*, December 29, 2024). When the entire lab-meat process is factored in, lab-meat is not more environmentally friendly than real meat, even feedlot beef.

FOR SCIENTISTS AND LAY READERS

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

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25th ANNUAL WISE TRADITIONS CONFERENCE!

October 17-19, 2025 wisetraditions.org

(with pre-conference dinner October 16 and farm visit October 20)





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Address ❒ This is my first Wise Traditions conference.

City | State | Zip Code | Country

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NOTE: Please fill out one form per adult. The registration packet with meal tickets will not be mailed but will be available at the registration desk at the conference.

THREE DAY REGISTRATION includes sessions and lunch each day, Friday dinner and Saturday banquet. **Please circle the price you are paying: *EARLY BIRD ENDS AUG. 31ST**

	BY AUG 31	AFTER AUG 31	AGE 20 & UNDER
❒ Full registration with 5 meals (not breakfast)	$450	$500	$300
❒ Full Registration No-Meal Option	$300	$350	$150

SINGLE DAY REGISTRATION includes sessions and lunch (no dinner).

Pick day(s) attending: ❒ Fri ❒ Sat ❒ Sun	$125/PER DAY	$140/PER DAY	$85/PER DAY
❒ Monday Guided Farm Visit 7 AM-6 PM (includes lunch)	$110		

EXTRA MEALS – Thursday and Breakfast are NOT included in registration above.

- ❒ Thursday Real Milk Celebration Dinner $60
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- ❒ Friday Dinner and Evening Sessions $60
- ❒ Saturday Evening Awards Banquet $85
- ❒ Lunch Pick day(s): ❒ Friday ❒ Saturday ❒ Sunday $50

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Annual Membership: Renew or new with registration: ❒ $30 (regularly $40/$50)
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❒ $50 discount for chapter leaders for three-day rate (not for the volunteer rate)

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❒ RN ❒ LAc ❒ NANP: ❒ All 3 days $65 or ❒ Friday $25 ❒ Saturday $25 ❒ Sunday $25
❒ Certificate of Attendance $5 (for RD or nutritionist and anyone else)

CHILDREN'S PROGRAM (For children 3-12 years old and potty trained.)

_____@ $300 per child for Friday - Sunday with conference meals except Saturday dinner is not the banquet.
_____@ $200 per child, for Friday - Sunday but no meals. _____@ $85 per child one day with lunch.
Child's Name(s)_____Age(s)_____

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Registration amount: _____ Additions _____ **Total Due:** $_____

❒ Credit Card ❒ Check/Money Order (payable to WAPF)

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Signature _____

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CHAPTER LEADERS

❒ I'm a chapter leader. ($50 discount on 3-day)
❒ I plan to attend the Chapter Leader Meeting
Thursday, Oct. 16, 12:00-4:30 PM

How did you hear about the conference?

❒ WAPF journal	❒ WAPF email
❒ Friend/colleague	❒ WAPF flier
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CANCELLATIONS

Requests for refunds must be written and received by September 30, 2025 ($50 processing fee). Requests received October 1-16 will be charged $150. After October 16, no refunds.
wisetraditions.org/cancellation-policy

EXHIBITING

wisetraditions.org/exhibit
Contact Paul Frank (240) 481-3755
paul@ptfassociates.com

By submitting this form, I authorize Wise Traditions to charge the applicable registration fees. If you cannot attend, substitutions will be permitted at any time.

Wise Traditions 2025
Salt Lake City Schedule

THURSDAY, OCTOBER 16 *~SCHEDULE IS SUBJECT TO CHANGE~*

12:00-4:30 Chapter Leader Meeting with Lunch (For current chapter leaders-free)
6:00-9:00 PM Real Milk Celebration Dinner (not included with conference registration)

FRIDAY, OCTOBER 17

7:15-8:45 Breakfast (extra fee) **8:00-5:30** Exhibit Hall Open
7:30-8:30 Movement

9:00-10:15
Sally Fallon Morell: Nourishing Broth
Amy Mihaly and Andie Simons: GAPS Diet Continued, Part 1
Andrew Kaufman: The Death of the Virus Paradigm

10:15-11:00 *Break and Visit Exhibits*

11:00-12:15
Hubert Karreman: TBD
Amy Mihaly and Andie Simons: GAPS Diet Continued, Part 2
Gerald Pollack: The Fourth Phase of Water: Beyond Solid, Liquid and Vapor

12:15-1:45 *Lunch and Visit Exhibits*

1:45-3:00
Neal Bosshardt: Medical Uses of Natural Bentonite Clay
Sara Patterson: Nourishing the Future: Inspiring a New Generation of Health Advocates
Lee Merritt: Parasites and Cancer--The Stealth Biowarfare

3:00-4:00 *Break and Visit Exhibits*

4:00-5:15
Vanessa Hargrove:
Targeted Microbial Therapy: 8 Powerful Foods that Heal You from the Inside Out
Leah Wilson: Protecting Your Right to Heal: Fluoride, Geoengineering and Your Voice
Tom Cowan: Farewell to Old Science and Biology

6:00-7:30 *Dinner*

7:30-9:00
Panel: Ask The Practitioners with Desirée Brazelton, Andrew Kaufman, Lee Merritt, Louisa Williams and moderator Sally Fallon Morell
Samantha Bailey: Secrets of a Staged Pandemic *(Livestream from New Zealand)*
Film: "Just Look Up: Uncovering the Elephant in the Sky" with Ariana Victor

SATURDAY, OCTOBER 18

7:15-8:45 Breakfast (extra fee) **8:00-5:45** Exhibit Hall Open
7:30-8:30 Movement **7:30-8:15** Sponsor Presentation

9:00-10:15
Sally Fallon Morell: Nourishing Traditional Diets, Part 1
Judith McGeary: Changing the Laws that Govern Our Food
Tom Cowan: The New Biology
Jim Stephenson: Vitamin D Facts You Won't Hear from Mainstream

10:15-11:00 *Break and Visit Exhibits*

11:00-12:15
Sally Fallon Morell: Nourishing Traditional Diets, Part 2
Mike Keen: Eating Greenland - an Evolutionary Diet Revelation
Louisa Williams: Neurofascial Therapy without Needles
Samantha Bailey: The Truth About Lyme Disease *(Livestream from New Zealand)*

Wise Traditions 2025
Salt Lake City Schedule

SATURDAY, OCTOBER 18 (continued)

12:15-1:45	*Lunch and Visit Exhibits*
1:45-3:00	Bill and Christina Schindler: Cheese: The Other White Meat Bob Quinn: Healing the Earth by Growing Food as Medicine Gerald Pollack: How Do Birds Fly Manel Ballester-Rodés: A New Look at the Circulation
3:00-4:00	*Break and Visit Exhibits*
4:00-5:15	Vanessa Hargrove: Unlocking the Secrets of Sourdough Judy Jasek: The Most Important Aspect of Animal Health Jim Stephenson: Secosteroid Hormone D, aka "Vitamin D" Deep Dive Nina Teicholz: Saturated Fats and Seed oils--How We Got it Wrong on 'Good' Fats vs 'Bad' Fats
5:15-5:45	*Break and Visit Exhibits*
6:30-9:30	**Awards Banquet Keynote**: TBD

SUNDAY, OCTOBER 19

7:15-8:45	Breakfast (extra fee)	**8:00-1:30**	Exhibit Hall Open
7:30-8:30	Movement	**7:30-8:15**	Sponsor Presentation

8:45-10:00	Sally Fallon Morell: Bringing Up Baby Desirée Brazelton: Homeopathy for Acute Care: Building a Nourishing First Aid Kit Manel Ballester-Rodés: The Body and Soul of Medicine Sasha Latypova: Pandemic Preparedness Racket - Continued Attack on Health and Food Supply
10:00-10:45	*Break and Visit Exhibits*
10:45-12:00	James Barry: The Original Superfood: Why Organ Meats Belong Back on the Plate Loredana Shapson: The Reproductive Microbiome: How It Affects Reproductive Health Mark Bailey: A Logical End to Virology *(Livestream from New Zealand)* Adam and Josh Bigelsen: Holographic Blood
12:00-1:30	*Lunch and Visit Exhibits*
1:30-2:45	Leona Vrbanac: Real Food, Real Change: Wise Traditions in the Urban Classroom Odette Wilkins: Is Wireless Radiation Bad for Your Health? Thomas Lokensgard: Matters of the Mouth; A Holistic Guide to Achieveing Optimal Oral and Overall Health Virus Deniers Unite Panel: Tom Cowan and Andrew Kaufman
3:00-4:00	**Closing Ceremony**: Sally Fallon Morell, Leslie Manookian, Will Winter

MONDAY, OCTOBER 20

6:30 am-6:30 pm	Will Winter and Steve Campbell: Professionally Guided Farm Visit

What the Media Don't Tell You about Measles

By Sally Fallon Morell

At the end of 2022, with the Covid vaccination program in shambles, officials began focusing their fear porn on the measles, as evidenced by a December 27, 2022 front-page article appearing in the *Washington Post*.[1]

"Diseases resurging as parents resist shots: Outbreaks of measles, chickenpox tied to rise in anti-vaccine sentiment," said the article, placing the blame on "parent resistance of routine childhood immunizations. . . intensifying a resurgence of vaccine-preventable diseases." According to the article, "a rapidly growing measles outbreak in Columbus, Ohio—largely involving unvaccinated children—is fueling concerns among health officials that more parent resistance to routine childhood immunizations will intensify a resurgence of vaccine-preventable diseases." The article did not provide any information on exactly how many of the children who contracted measles were not vaccinated and how many were; it consisted mostly of quotes from hand-wringing public officials about children not getting their shots.

Vaccinated children who get the measles provide proof that measles is not "vaccine-preventable" at all.

A CBS news report from late 2022 told a different story.[2] An Ohio measles outbreak involved eighty-two children, 94 percent of whom were under age five. "[A]ll of the children impacted by the outbreak are at least partially unvaccinated, meaning they have only received one dose of the necessary two for the measles-mumps-rubella vaccine, known as MMR, although four children still have an unknown vaccination status. Children are recommended to get their first dose between 12 and 15 months of age and the second between the age of 4 and 6."

Because most of the Ohio children afflicted were under five, this means that most of them were in fact "fully vaccinated," as the second dose is recommended for children ages four to six. Vaccinated children who get the measles provide proof that measles is not "vaccine-preventable" at all. In fact, we are justified in asking whether children getting the measles so young—normally the illness occurs in children around age seven or eight—is an indication that the vaccine may be causing children to contract the measles too early in life.

ENDERS' CONTRIBUTIONS TO THE MEASLES NARRATIVE

The cause of measles, according to public health agencies, is a "highly contagious virus" spread through the coughings and sneezings of the afflicted—or even viruses remaining on surfaces that measles sufferers have touched. The problem is that scientists have been unable to find said virus in these bodily fluids. Credit for the "isolation" or "discovery" of the "agent of measles" goes to John F. Enders, winner of the 1954 Nobel Prize in physiology and medicine.

Enders developed techniques of "propagating" the virus in a culture.[3] The procedure involved taking throat cultures from children sick with measles, mixing them with "sterile fat-free milk," adding a high dose of penicillin or streptomycin and then centrifuging this goop. The resulting supernatant fluid or sediments were again mixed with milk and used as inocula in different experiments, where they were added to various types of tissue including human kidney, human embryonic lung, human embryonic intestine, human uterus, rhesus monkey testes, human embryonic skin and muscle, human foreskin (!), rhesus monkey kidney and embryonic chick tissue. You can't accuse Dr. Enders of not being thorough! Only the rhesus kidney cells gave Enders the results he wanted—a breakdown of the cells in the tissues. And yet, the consensus is that animals don't get measles!

The culture medium consisted of bovine amniotic fluid, beef embryo extract, horse serum, eye of newt and toe of frog (just kidding about the last two items). To this mixture of biological materials (and they are calling this an "isolation"!) was added phenol red, antibiotics and—strangely—soy trypsin inhibitor. The monkey kidney cells broke down—cell boundaries were obliterated, the nuclei deteriorated and large and small vacuoles (empty spaces) formed. What caused this breakdown? Enders claimed it was the "agent of measles," but a more likely candidate was the antibiotics, especially streptomycin, which is a kidney toxin—note that only kidney cells broke down from this strange culturing treatment.

Since Enders' day, thousands of papers on virus "isolation" have cluttered up the scientific literature, using variations of his technique to claim the pathogenic effects of "viruses," but Enders' paper was unique: it included a control. Enders looked at monkey kidney cells that had *not* received an inoculation of measles material—but did receive all the other poisons—and the cells broke down. "The cytopathic changes it induced in the unstained preparations could not be distinguished with confidence from the viruses isolated from measles." After staining, the measles-cultured cells did look different, with more deterioration of the nuclei, but remember, there were kidney-toxic antibiotics in the cultures.

If you think that the studies of Enders and the virologists who followed him prove the existence of a pathogenic measles virus—and remember, no one has been able to isolate said virus from the throat cultures, blood or even feces of afflicted patients—then there is a prize for you. One hundred thousand euros await the individual who can prove the existence of an infectious, pathogenic measles virus.[4]

MEASLES AND VITAMIN A

Symptoms of measles include a diffuse red rash, high fever, cough, runny nose, red watery eyes (conjunctivitis), and occasionally abdominal pain, vomiting and diarrhea. These symptoms usually subside in a few days, but in malnourished children, measles can result in serious side effects, such as blindness or seizures, and can even be fatal.

According to conventional advice, "There's no cure and no specific treatment for measles."[5] Acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDS) for pain and fever are common recommendations, along with bed rest and plenty of liquids.

Actually, there *is* a treatment for measles, a treatment that can be lifesaving in cases of severe measles: vitamin A. I find it shocking that public health officials have turned their backs on the accumulated science about vitamin A and measles. A literature search turns up over five hundred studies on this subject, such as one titled, "Low serum retinol is associated with increased severity of measles in New York City children,"[6] in which the authors concluded, "Children with no known prior vitamin A deficiency exhibited a significant decline in their serum retinol levels during the acute phase of measles. This decline in circulating retinol was associated with increased duration of fever, higher hospitalization rates, and decreased antibody titers."

Or this one, titled "Vitamin A administration reduces mortality and morbidity from severe measles in populations nonendemic for hypovitaminosis A,"[7] which concluded: "On admission to a public hospital in Cape Town, South Africa, children with measles complicated by pneumonia, diarrhea, or both were given either a placebo or 400,000 IU of vitamin A. Administration of vitamin A significantly reduced mortality, decreased morbidity, and shortened the period of overall hospital stay."

Or this one: "Vitamin A for the treatment of children with measles—a systematic review,"[8] which begins with the statement, "Vitamin A deficiency is a recognized risk factor for severe measles," and concludes "that 200,000 IU of vitamin A repeated on 2 days should be used for the treatment of measles as recommended by WHO in children admitted to hospitals in areas where the case fatality is high."

VACCINATE NO MATTER WHAT

Vitamin A recommended by the World Health Organization! But you aren't reading about the miraculous results of vitamin A treatment for measles patients in publications like the *Washington Post*. Instead, there is the constant push for vaccination, even though the MMR (measles-mumps-rubella) and MMRV (MMR plus varicella) can have serious side effects, including autism. Ingredients in the MMR include chick embryo cell culture, WI-38 human diploid lung fibroblasts, MRC-5 cells, amino acids, fetal bovine serum, recombinant human albumin, neomycin, sucrose, sorbitol, mannitol, lactose and hydrolyzed gelatin.[9,10] The MMRV features similar ingredients plus "DNA," monosodium L-glutamate, sodium bicarbonate, phosphate buffer and potassium chloride. (Potassium chloride is used to cause cardiac arrest as the third drug in the "three-drug cocktail" for executions by lethal injection.[11])

It's safe to say that in recent years, the MMR and other vaccines with a measles component have killed more children than the measles. As of April 25, 2025, over one hundred sixteen thousand reports of measles vaccine reactions had been submitted to the federal Vaccine Adverse Event Reporting System (VAERS), almost certainly an underestimate.[12] These included 573 related deaths, 9,054 hospitalizations and 2,219 permanent disabilities.[12] Over 63 percent of those adverse events occurred in children five years old and younger.[13] By contrast, deaths from measles are extremely rare—there were none in the U.S. between 1993 and 2021.[14]

Vitamin A *has* been in the news recently, in relation to a measles outbreak in West Texas. More than five hundred children are said to have contracted measles and, according to the media and the Texas Department of State Health Services, two have died.[15]

Regarding the Texas outbreak, Robert F. Kennedy, Jr., secretary of HHS, stated that vitamin A might help with the measles outbreak as a possible treatment. (Maybe he read my 2023 blog![16]) The media have been quick to downplay this reference to a vitamin. According to a re-

It's safe to say that in recent years, the MMR and other vaccines with a measles component have killed more children than the measles.

Mainstream medicine is uncomfortable reporting on the benefits of vitamin A.

port from *Business Insider*, "Vitamin A is used worldwide to treat children with measles, but it doesn't prevent infection. Researchers have raised concerns that touting vitamin A mirrors anti-vaccine talking points."[17] According to Dr. Andrea Love, an immunologist quoted in the article, "Good nutrition and vitamin A are not going to stop a measles outbreak."

That's why Love insists that Kennedy's message could "confuse readers who are already skeptical of vaccines."[17] Love told *Business Insider*, "People who see this are going to pick up on the things that resonate with their beliefs. The entire wellness industry and pseudoscience landscape plays into the idea of taking control of your health." Love, like so many others, stresses the possibility of vitamin A toxicity, and—horror of horrors—families taking charge of their health.

A professor of epidemiology at the University of Michigan School of Public Health, Dr. Eduardo Villamor, told *Business Insider*, "The most effective preventive measure is vaccination, that cannot be overemphasized."[17] What none of these experts mention is the fact that deaths from measles were in steep decline long before the introduction of the measles vaccine in 1968 (see Figure 1). Even actual cases of measles in the U.S. had dropped precipitously before the introduction of the vaccine (see Figure 2).

Mainstream medicine is uncomfortable reporting on the benefits of vitamin A. In one of the studies mentioned above,[7] researchers reported a 50 percent reduction in mortality in the vitamin A-treated children and no adverse reactions to the treatment, yet the authors insist that "The first line of defense against measles death should be immunologic (vaccination), not nutritional."

THE FACTS ON VITAMIN A TOXICITY

The subject of vitamin A invariably brings up warnings of toxicity. According to an article by Suzanne Burdick, PhD, written for Children's Health Defense,[18] doctors test for vitamin A toxicity by checking for signs of liver damage. However, according to Dr. Richard Bartlett, elevated liver enzymes—a sign of abnormal liver function—don't necessarily indicate vitamin A toxicity.[18] Many factors can cause liver enzymes to rise, including mononucleosis, Epstein-Barr, hepatitis A and C, fatty liver disease (now occurring in many children) and pain medicines such as Tylenol (recommended for children with measles). Vitamin A toxicity is better assessed by measuring vitamin A levels in the blood, which hospitals are not doing.

Still, the question remains: Why are hospital personnel giving such high doses of vitamin A? A teaspoon of cod liver oil contains, on average, 10,000 IU of vitamin A, but the standard treatment seems to be to shock the body with a couple of doses of 200,000–400,000 IU of vitamin A.

FIGURE 1: Rate of measles deaths in the U.S. per 100,000 population, 1919–2021

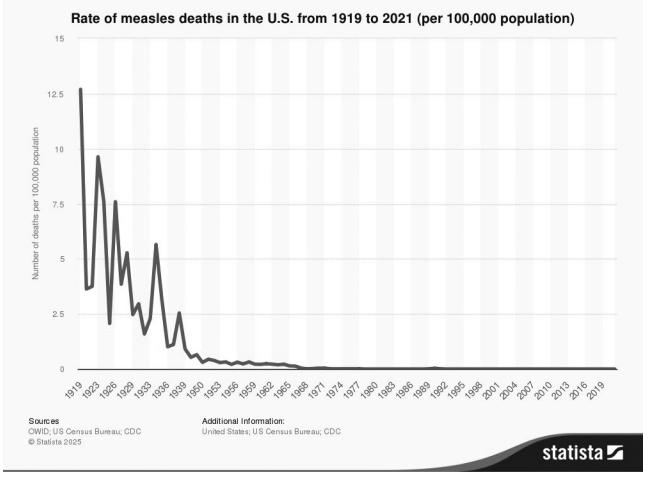
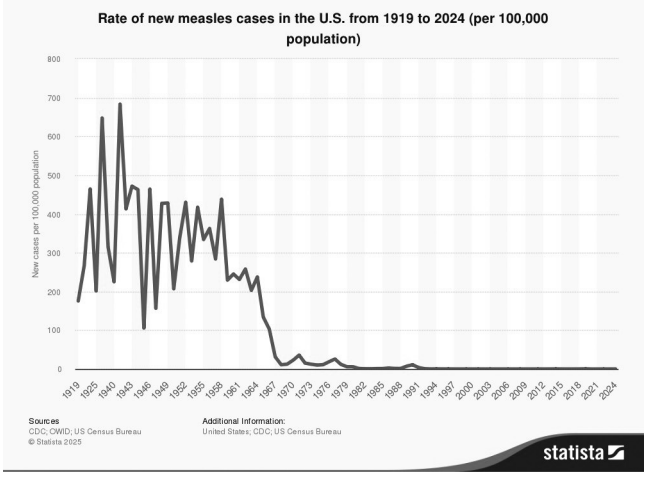


FIGURE 2: Rate of new measles cases in the U.S. per 100,000 population, 1919–2024



A 1999 review article by RD Semba looked at studies on cod liver oil and other sources of vitamin A carried out between 1920 and 1940.[19] Of studies using cod liver oil or halibut liver oil alone for infectious disease, thirteen were effective in reducing morbidity, mortality and severity, while four had no effect. Only one of these looked at cod liver oil alone in the treatment of measles; it found that treatment with cod liver oil reduced measles mortality by about one-half, from 8.7 percent in the untreated group to 3.7 percent in the treated group. (Interestingly, a study that used cod liver oil plus vitamin D—which would have been D_2 in those days—had no effect on morbidity or mortality.) Semba dismisses the positive cod liver oil results in a snide reference to the pharmaceutical industry, which "emphasized the positive results in their advertising to the public."

SETTING MEASLES FEARS ASIDE

Instead of vaccinations, let your child get the measles! The treatment is simple: bed rest in a darkened room (to avoid overstimulating the eyes); cold compresses for fever; and cod liver oil (use an eye dropper), smoothies of egg yolk, cream and maple syrup, and a little liver paté for vitamin A. With vitamin A-rich cod liver oil and food, your child will be better in no time and will have protection against the serious effects of high fever. One school of thought holds that having the measles strengthens the immune system and provides protection against cancer later in life.

So, if it's not a virus, what causes the measles? Because measles is obviously an effort by the body to detoxify, environmental toxins—especially in the water—are likely candidates. The decline in measles in industrialized countries, and especially deaths from measles, parallels the cleaning up of our cities and cleaner water for everyone. Diets also improved, especially up to the Second World War, when people still drank whole milk, ate butter and took cod liver oil.

Even so, children still get the measles. One theory holds that children go through a natural, even a programmed, cleansing as they make the transition from early to middle childhood around age seven. Children with measles may even "communicate" to other children of the same age that it's time to go through this important process. Certainly, not everyone in a household gets the measles when one child has it, not even the other children.

Once we throw off the "virus" theory of measles, we can explore the true causes of this and other childhood diseases. Meanwhile, a nutrient-dense diet—not vaccination—is the best protection for your child.

Once we throw off the "virus" theory of measles, we can explore the true causes of this and other childhood diseases.

Sally Fallon Morell is founder and president of the Weston A. Price Foundation, editor of Wise Traditions*, owner of New Trends Publishing and author of many books. With Dr. Tom Cowan, she co-authored* The Contagion Myth: Why Viruses (including "Coronavirus") Are Not the Cause of Disease.

DEATHS FROM MEASLES IN TEXAS

According to the mainstream media, two children have died from measles in the recent West Texas outbreak. The first child, a six-year-old girl who died in March, died not from measles as claimed but from pneumonia following a measles infection and as a result of a "medical error." According to Dr. Pierre Kory, who has extensive experience in pulmonary and critical care medicine, "that error was a completely inappropriate antibiotic" for treating the kind of pneumonia she had.[20]

In April, a second child died from what the child's doctors described as "measles pulmonary failure."[21] However, doctors who reviewed her medical records disputed that statement, saying that the records showed she died from acute respiratory distress "secondary to hospital-acquired pneumonia," which she likely developed during a previous hospital stay. Her white blood cell count was very high—not a symptom of the "measles pneumonia" that the hospital records kept insisting on. Again, according to Kory,[22] the child was not treated properly, with doctors putting her on high-dose steroids rather than the appropriate antibiotic; moreover, the staff did not obtain a lung culture in a timely manner, only discovering infection by *E. coli* bacteria—not a "virus"—just before her death.

Needless to say, neither of these children was given vitamin A.

FASCINATING RESEARCH ON VITAMIN A—FROM 1925

WAPF honorary board member and *Wise Traditions* contributor Pam Schoenfeld, MS, recently alerted me to an eye-opening article on vitamin A. Titled "Tissue changes following deprivation of fat-soluble A vitamin," by S. Burt Wolbach, MD, and Percy R. Howe, MD, the article was published in the *Journal of Experimental Medicine* in 1925.[1]

This paper is interesting for several reasons. The first concerns the changes these researchers observed when they deprived rats of vitamin A. The main effect was keratinization of the epithelial tissues. The epithelial tissues are thin tissues that cover all the exposed surfaces of the body, such as the skin, the inner lining of the mouth, the digestive tract, secretory glands, the lining of hollow parts of every organ, such as the heart, lungs, eyes, ears, urogenital tract, as well as the ventricular system of the brain and central canals of the spinal cord—most of which can be affected by measles, by the way.

Keratinization is the process by which the cells of the epithelium are filled with a hard protein called keratin—think hair and fingernails in humans, or beaks, horns, scales and hooves in animals. When our skin sloughs off cells, they first become keratinized and form a thin protective surface on our skin, but mostly the epithelial tissue is soft and mucous-secreting, often composed of hair-like structures called cilia.

Wolbach and Howe found that vitamin A deficiency resulted in the substitution of "stratified keratinizing epithelium for normal epithelium in various parts of the respiratory tract, alimentary tract, eyes, and paraocular [surrounding the eyeball] glands and the genitourinary tract." This led to the atrophy of many glands, arrest of growth, emaciation and eventually death. While the rats showed no signs of rickets (the test diet contained vitamin D), the bones and teeth stopped growing. Notably, "Young rats respond to the deficiency more promptly than adults," meaning that vitamin A deficiency is more serious in growing children than in their parents.

The researchers also found that "deficiency results in loss of specific (chemical) functions of the epitheliums concerned." In other words, these tissues no longer worked as they should. Interestingly, these changes did not occur in the liver, parenchyma of the kidney, stomach or intestines.

The authors observed, "In general the respiratory mucosa in nares [nostrils], trachea, and bronchi keratinized first, then the salivary glands, eye, genitourinary tract, then paraocular glands and pancreas." The general view at the time was that the eyes were the first organs affected by vitamin A deficiency, but the researchers found otherwise.

Following keratinization, many of the glands atrophied (wasted away), followed by emaciation and localized edema of testes, submaxillary (salivary) gland and connective tissue structures of the lungs and focal myocardial lesions. The same applies to glandular atrophy. According to the authors, "Glandular atrophy probably explains the loss of power of smell as a late but consistent symptom."

Enamel formation in the teeth was inhibited. "The enamel-forming cells in advanced stages are either shrunken and atrophic or replaced by a narrow layer of stratified, non-keratinizing epithelium." Indeed, many of the changes superficially resembled scurvy.

Other effects included the disappearance of fat in adipose tissue throughout the body, reduction in size of the liver and spleen and atrophy of several glands: pancreas, thyroid, pituitary and thymus. Large cysts composed of "desquamated keratinized epithelial cells" formed in the salivary glands, which interfered with swallowing and was often a cause of death; cysts also formed in the lungs "and were so numerous as to be the cause of death."

"Desquamated keratinized epithelial cells" often blocked the bladder and urethra. Cysts were common in the prostate gland and seminal vesicles. These findings beg the question of whether many cases of "cancer"—in the prostate, bladder, lungs, throat, glands, etc.—are due to the accumulation of sloughed-off keratinized cells in these organs due to vitamin A deficiency.

Wolbach and Howe described their observations with great care and detail. They noted that "infection" [with bacteria] occurred in certain glands and organs but only *after* the degeneration that followed withholding of vitamin A: "Infection and suppuration are very common, but not invariable and have nothing to do in initiating the epithelial change." They added, "Our own experiences in the care of the rats are in complete opposition to the importance of infection, either as an initiating factor in the pathology or as a cause of death."

They also noted that "edema" (or what we call "inflammation") occurred in certain organs, again only after the changes induced by vitamin A deficiency. "The occurrence of transient edema in testes and salivary gland coinciding with a period of maximum atrophic change, suggests the hypothesis that this edema is the result of

failure of epithelium to utilize transported material."

Today we blame disease on "infection" and "inflammation," but in 1925, the two researchers were careful to point out that these conditions arose as a *result* of vitamin deficiency. (By the way, "edema" most frequently occurred in the salivary glands and the testes—this sounds a lot like mumps to me!)

A final detail that I found of interest was that the test diet contained lard to supply vitamin D but no vitamin A. Yet food tables today indicate that lard contains a trace amount of vitamin A but no vitamin D! The fact that lard can be a good source of vitamin D is one of those secrets the diet dictocrats don't want you to know.

The researchers were able to reverse the effects of vitamin A deprivation by adding butter to the diet, and vitamin A in the control diet was also supplied by butter.

The message for modern humans is this: Include plentiful lard (from pigs raised outdoors) and butter from grass-fed cows in your diet to keep the lungs, nasal passages, bones, teeth, urogenital organs and many of the body's important glands in good working order. . . and to avoid serious cases of common childhood diseases like the measles and mumps.

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Treating Measles with Cod Liver Oil

By Dr. Ben Edwards, MD

I was raised in a small town in central Texas where both my grandfathers were the local doctors—they were "old school" general practice guys who did everything. I graduated from the University of Texas-Houston medical school in 2002, completed my residency in family practice at Waco Family Practice and then moved out to West Texas where, for seven years, I was the only physician in the county, practicing at the local county clinic.

Then a divine revelation opened my eyes to the fact that nutrition actually matters when it comes to human health, so I started learning about diet and lifestyle factors that are at the root of most chronic disease. So, for the past thirteen years I've been practicing more integrative, holistic medicine with a strong focus on nutrition—very much influenced by the work of the Weston A. Price Foundation.

THE OUTBREAK

Gaines County is about ninety miles south of Lubbock County where I practice. One day in April, one of my patients from Gaines County called me to ask whether I would come check on the siblings of a young girl who had just passed away in the hospital, reportedly from measles. The siblings had measles, too, and the parents were too afraid to take them to the hospital. I traveled to Gaines County that Saturday afternoon.

I was escorted into the Mennonite church where the community was gathered for the viewing and visitation prior to the funeral the following day. I met the parents and siblings of the little girl who had passed away—and yes, the four siblings were obviously suffering from measles. I observed that a number of other children who were in attendance also had the typical measles rash. I was asked to go see a set of four-month-old twin boys, cousins to the deceased, because they also had measles and were struggling with high fever and respiratory distress. I made my way to their home, and after examining them, I was informed there were eight more children under two years old in their extended family who had measles and needed attention. This was on a Saturday night. After discussions with some of the community leadership, we decided it would be best to set up a central location for all the sick children. We set up a makeshift clinic and started seeing children the following day. I saw about seventy-six children the first day and over two hundred the ensuing days.

On my way down to Gaines County, I stopped by my clinic in Lubbock and picked up some cod liver oil and whole food vitamin C—I was able to give the siblings bottles of both of those. The following day, the father told me that he had woken up in the night a bit afraid because his house was so quiet. For the first time in many days, the children were not coughing all through the night. For some of the other children who were experiencing more severe respiratory distress, I prescribed an inhaled steroid called budesonide.

I had never seen or treated measles prior to this outbreak. I had read about measles in textbooks and from those descriptions, I was not expecting to see the significant respiratory distress that I saw in some of the children.

COD LIVER OIL

I knew cod liver oil was a great source of natural vitamin A as well as vitamin D and other nutritional cofactors. Vitamin A has been shown in multiple studies to reduce mortality in measles, including up to 82 percent in one study. Vitamin A is essential for proper function of the epithelium that lines the airway as well as the cilia, the mucous-producing cells and the immune system cells that line the airways. It is well known that vitamin A is an important nutrient to combat all infections, but measles in particular is known to deplete the body of vitamin A.

But I sure didn't learn about cod liver oil in medical school! I only received about two hours of nutrition lectures in four years of medical school (most doctors receive none). During my continuing medical education outside of conventional medicine, I learned about the work of Dr. Weston A. Price. I had read his book, *Nutrition and Physical Degeneration* years ago and had also discovered the Weston A. Price Foundation's website. Through both of those sources, I had learned about the incredible benefits of vitamin A and cod liver oil. Also, about seven years ago, after the birth of our sixth child, my wife was really struggling to breastfeed and produce enough milk. We supplemented with the homemade formula recipe from the Weston A. Price Foundation's website, which includes cod liver oil. I also routinely recommend cod liver oil as a daily nutritional supplement to all my patients.

After talking with some of the Mennonite leaders and trying to get an estimate of how many sick children there might be, I called local health food stores to see how much cod liver oil they had. I also assessed the stock we had in our clinic. There was actually very little available as the public had been stockpiling it because the measles outbreak was being widely reported on by our local media. I then reached out to various cod liver oil suppliers that I knew who had large quantities in stock to see whether there would be a way to get a bulk order shipped as quickly as possible. It turned out that a patient of mine

But I sure didn't learn about cod liver oil in medical school!

I did start to observe a pattern where the children who were breastfed were overcoming their symptoms much more readily.

was a Gaines County resident and also a pilot. The owner of the plane he typically flew was willing to donate the plane, fuel and pilot time to go pick up the shipment the next morning. So, my son and I met the private plane at the Gaines County airport on a Sunday afternoon and loaded my pick-up truck with boxes of cod liver oil and vitamin C. The brand I got was Jicsaw Arctic Cod Liver Oil, along with their vitamin C product called Purway. I started seeing patients that afternoon.

THE IMPORTANCE OF GOOD NUTRITION

One question that comes up is why measles cases are more severe in some patients, especially the respiratory component. I do have an opinion on that based on my clinical observations and questioning of the children's parents. Severe cases seemed correlated with a lack of good nutrition and ignorance on how to support a small child through a high fever. For example, in one family where I made a house call, there was a large pile of Goldfish, the popular modern processed snack food, sitting on the kitchen table.

It turns out that some of these families are on the government food assistance program and purchase processed food from the small, local grocery store. In another case, a small four-month-old baby was in respiratory distress and had not been able to take more than two ounces of formula. The child had a very high fever of 105 degrees but also had on three layers of clothes and three blankets. The combination of dehydration and high fever on top of his measles infection had him in a very compromised state. Little ones like him don't have a lot of reserve capacity or wiggle room, so dehydration and decompensation can set in quickly. In that case, just taking the clothes off, cooling him off and giving one breathing treatment of budesonide allowed him to get enough relief to take the bottle. He looked like a completely different child, in a good way, the following morning when I saw him.

I was seeing patients, I began asking the mothers about the nutritional status of the children, especially the small children, such as whether they were breastfed or bottle-fed. I did start to observe a pattern where the children who were breastfed were overcoming their symptoms much more readily.

Another contributing factor, I believe, was a lack of access to care, as many of the Mennonites either did not have a local physician or chose not to engage in the Western medical system. When symptoms became a little more severe, they lacked the knowledge and support on how to best navigate those more severe symptoms. I also believe fear contributed greatly, especially after the first child died. Fear not only affects physiology and function but also clouds judgment. After reviewing the medical record of the child who unfortunately passed away, it was clear that she died from a medical error. The resident physician who admitted her did not give her the correct antibiotic regimen for community-acquired pneumonia, violating all standard-of-care recommendations. It is my strong opinion that she would have recovered fully and quickly if she would had been appropriately treated.

Of course, I have some bias, and this was not in any way a formal study, but after treating over two hundred cases of measles in Gaines County, it is my very strong opinion that, just as Dr. Price found, a well-nourished and well-nurtured child (cared for with ancestral wisdom) will overcome measles very easily. Rarely will there be a need for medical intervention, but if there is a need, appropriately prescribed medical interventions can prevent anyone from having a poor outcome.

TREATMENT PROTOCOL

The issue of dosing and potential "overdosing" on vitamin A needs to be addressed, as the media did attempt to scare the public about this topic. The studies I was able to find, mostly out of Africa, used 100,000 to 200,000 IU of isolated forms of synthetic vitamin A, typically either as a one-time dose or two doses on consecutive days. These doses were given to babies under one year old. There can be a risk of overdosing if using synthetic, isolated forms of vitamin A at high doses like 100,000 IU, especially for many weeks at a time.

When using a food-based form of vitamin A such as cod liver oil, this is not a concern as the typical vitamin A content in a teaspoon of most

cod liver oil supplements is around 3,000-6,000 IU per teaspoon. I believe that the whole-food nature of cod liver oil and the synergistic effects of the other phytonutrients and co-factors in this oil, such as vitamin D, all serve to potentiate the medicinal effects.

My dosing instructions to the parents of the sick children depended on age, how many days into the illness they were and the severity of their symptoms. Also, I was using liquid cod liver oil, so tolerability and compliance due to taste were a factor. For young infants in the four-to-twelve-month range, if they were bottle-fed, I would instruct the mom to give a half teaspoon of cod liver oil per bottle or squirt it in the child's mouth just prior to the bottle. For breastfed infants, I encouraged the mom to consume two to three teaspoons, three or four times per day, but also try to give one-fourth to one-half teaspoon at each feeding. For older children, I would encourage the parents to give as much as the child would allow, such as one or two teaspoons before each meal. In the sickest older kids and adults, I would encourage a teaspoon an hour while awake, at least during the three or four days of most severe symptoms. For vitamin C, I would typically recommend 100-200 mg every hour to bowel tolerance (back off if loose stool) in small children of the four-to-twelve-month range. In older children, I would recommend 500 mg every hour to bowel tolerance.

A typical measles course that I observed was:

Day 1: Fever
Day 2: Minimal to no fever
Day 3: Fever is back, typically fairly high like 104-105 degrees, cough starts, rash may develop at this time
Days 4, 5, 6: High fever, cough, rash
Days 7, 8: Everything clears up

I observed that symptoms would typically improve and not be as severe within one day of starting cod liver oil and vitamin C. When sicker children seemed to be struggling to move through the illness in the above timeframe, or symptoms were lingering longer than expected, usually after one day of consistent dosing of vitamin C and cod liver oil, the symptoms would resolve.

All of the children I treated recovered without any adverse consequences.

All of the children I treated recovered without any adverse consequences.

GRATITUDE

I'd like to thank everyone at the Weston A. Price Foundation for maintaining such a great website and providing resources to support not only parents but also clinicians in the field. I immediately turned to the Foundation's website to search out measles, vitamin A and cod liver oil topics.

What I found was actually much more helpful than what I found on the CDC and WHO websites to help guide my clinical decision-making. In fact, I have shared the articles that I found most helpful with officials from the CDC and HHS as well as other colleagues who have reached out inquiring about how to treat measles. The three articles I found most helpful were:

westonaprice.org/did-cod-liver-oil-contribute-to-the-historical-decline-in-measles-mortality-and-mortality-from-other-infectious-diseases/

westonaprice.org/health-topics/abcs-of-nutrition/vitamin-a-saga/

westonaprice.org/health-topics/vitamin-a-mazing/

Thank you for all you do to help preserve and advance the work of Dr. Price.

Alleged Measles Outbreaks and the Questions They Invite

By Tom Cowan, MD

I'd like to comment on the alleged measles outbreak in Texas, and I would like to frame my comments as if I were the HHS Secretary. In doing so, I have three basic intentions. The first is simply that I think it's important to try to get the truth out as best as I know it. Secondly, because the official measles narrative doesn't seem to offer anything but a full-on, pro-vaccine response, it's my hope that more accurate information can help the current HHS Secretary find another way out of the dilemma. Thirdly—and this is something that I talk about a lot—we don't need a government response. For most things (and maybe for everything), a government response just messes things up! It's more of a superstition than anything else.

As a private individual who is not part of the government, I'm describing the situation as I see it so that people can figure out what to do without government intervention. If we understand that we don't need government to tell us what to do when something like a measles outbreak allegedly happens, then we can create an effective response that doesn't depend on government.

BUT FIRST, WHAT IS "MEASLES"?

What we've heard is that there is a measles outbreak in Texas. Children are getting sick, and public health officials are blaming it on the unvaccinated Mennonite community. We're also told that uptake for measles vaccines has declined from the 97 or 98 percent level that officials say is optimal to something like 78 percent, and supposedly that is the fuel for this outbreak. Additionally, officials allege that one or possibly two Texas children have died as a result of measles.

Let's try to unpack those claims a bit. I like to start at the beginning and ask, "What is measles?" The answer that health officials will give is that measles is a childhood illness (meaning an illness that happens in children) caused by an RNA measles virus that produces a certain set of symptoms that are sometimes harmless and sometimes dangerous. They also give rates for the percentage of children who come down with measles, the percentage who have complications like ear infections and pneumonia, and the percentage of children who allegedly die from measles.

Is it true that measles is a specific clinical entity? Or, to put that question even more simply, "Is there actually a specific disease called measles?" The CDC is supposed to be the definitive word on this. So, what is the CDC's exact definition of a measles case? In other words, according to CDC, how do we know that a person has "measles" as opposed to some other illness?

The CDC case definition for measles says that it is an acute illness characterized by a generalized, maculopapular rash (that means "red and bumpy") that lasts three or more days, with a temperature greater than or equal to 101˚F or 38.3˚C, and cough, coryza (basically, a runny nose) or conjunctivitis (meaning inflammation of the eyes).[1] CDC says that it classifies a case as "probable" measles "[i]n the absence of a more likely diagnosis" if the illness "meets the clinical description with no epidemiologic linkage to a laboratory-confirmed measles case and noncontributory or no measles laboratory testing."

Where there is an "acute febrile rash illness," the CDC says that "confirmed" cases require one of the following:

- Isolation of measles virus from a clinical specimen
- Detection of specific nucleic acids using a PCR test
- Testing for "IgG seroconversion or a significant rise in measles immunoglobulin G antibody" (using molecular diagnostic tests claiming that the antibodies confirm that it's measles)
- Use of a positive serologic test for measles immunoglobulin M antibody
- A "direct epidemiologic linkage to a case confirmed by one of the methods above"

NONSPECIFIC CLINICAL DESCRIPTION

The first and most important thing I want to get across is that there is no way to tell by looking at a child whether or not the child has something called measles. In fact, in Western medicine's catalog of childhood diseases, there are half a dozen or more supposedly distinct conditions that all happen to have symptoms essentially identical to the clinical description of "measles." This raises an obvious question: When a child has a rash that covers a lot of their body, a temperature of around 103˚F to 105˚F, a cough, a runny nose and eye inflammation, how are we supposed to know whether it is "measles," "roseola," "Fifth disease" or another reportedly separate condition with virtually the same symptom profile?

The point that I'm making (and this has been verified in many studies) is that if you show a child with these types of symptoms to a range of experienced pediatricians, they will not be able to come to an agreement on whether the child has "measles" or some other "virus-caused disease." In fact, I can remember sitting through dermatology lectures in medical school that presented us with slides of children with these apparently discrete illnesses and thinking, "I don't get it."

In short, there is no way to definitively diagnose "measles" based on symptoms alone, and the CDC says as much. According to CDC, the best you can do is describe what is happening and say, "this may be measles," but you cannot make a definitive diagnosis solely on the basis of a physical examination or visual inspection of the child because, from Western medicine's

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If you don't have a gold standard—a 100 percent validated test—you can never find the false positive or false negative rate, and, therefore, it can never be a valid test.

standpoint, it could also be one of seven to ten other childhood illnesses that it has inventoried but which are clinically indistinguishable from what medicine calls "measles."

NO VALIDATED TESTS

If we go by the CDC's own definition, "confirming" that an illness is "measles" and not something else requires that someone either isolate the measles virus, find pieces of the genome of the measles virus, detect antibodies to the measles virus or have an "epidemiologic linkage" to another case "confirmed" using one of those molecular detection methods.

For the moment, I'm going to ignore the fact that the measles virus has never been isolated based on the actual definition of "isolation," which is "to separate one thing from all other things." For the sake of my argument here, I'll temporarily assume there is a virus, even though we know that there isn't. I'm not going to go into that further because I've done that talk with Drs. Sam and Mark Bailey, Dr. Andrew Kaufman and Christine Massey. Many people have explained the lack of evidence for a measles virus.

I'll also momentarily ignore the fact that the early studies done by Enders (and by others) disproved the "isolation with cell culture" technique as being valid for the detection or isolation of a virus. Enders even admitted that he got the same result whether he added something from a measles patient or added nothing to his cell culture.

Let's forget about all that for a minute and ask, "What is required for a test to be considered valid for diagnostic purposes?" For a "surrogate test" (meaning a test that measures a surrogate endpoint thought to correlate with a clinical endpoint) to be used to diagnose a specific condition, it must be compared to a so-called "gold standard," meaning a situation where you know with 100 percent certainty what the real diagnosis is. If you can compare your surrogate test to the gold standard, you can find out the false positive and the false negative rate. If you don't have a gold standard—a 100 percent validated test—you can never find the false positive or false negative rate, and, therefore, it can never be a valid test.

Let me give you an example to make that very clear. With pregnancy, you can take one hundred women who you know are pregnant. You could even wait and see if the baby comes out, or you could see the hands, feet and head on an ultrasound at four or six months. Then, you could do a molecular detection test for certain "hormone" levels or "immunoglobulin" levels or whatever you want and compare the two and see how often they match. If the molecular detection test is positive in ninety-nine out of one hundred of those women, then you know you have a test with a 1 percent false negative rate. Then you can safely and accurately use that test, and you can tell women, "One out of one hundred times, the test will tell you that you are not pregnant when, in fact, you are, but 99 percent of the time, if the test says you are pregnant, you can rest assured that you are pregnant."

At the same time, you have to do a false positive assessment. That means, for example, that you take one hundred men and do the same test; if three of them are positive, then you know you have a 3 percent false positive rate. You can tell people, "I did this test, and 3 percent of the time it says you're pregnant when you can't possibly be pregnant." Then, you can use the test in a clinical setting.

In the measles example, here is the question that you would have to ask: "What is the test that gives me 100 percent certainty that I am dealing with a case of measles?" Think about that for a minute. We already know that a generalized rash and a temperature, cough, runny nose and red eyes are entirely nonspecific and cannot diagnose for sure that somebody has "measles."

Now, remember that CDC defines a "probable" case of measles as an illness that "meets the clinical description with no epidemiologic linkage to a laboratory-confirmed measles case and noncontributory or no measles laboratory testing." (I would note that it's circular reasoning to talk about "no epidemiologic linkage" to a lab-confirmed measles case, because if a lab can't confirm that there's measles, an "epidemiologic linkage" is meaningless.) "Noncontributory or no measles laboratory testing" means that you're back to the clinical description—even though we know that it cannot differentiate between "measles," "roseola," "Fifth disease" or six or seven other so-called conditions that we

are assured exist and are distinct.

Given that the CDC is referring us back to the unhelpful clinical description, there is no way to get a false positive or a false negative rate on any of its molecular detection techniques. In other words, even using the CDC's own framework, their molecular detection tests cannot be valid for the detection of a specific disease because there is no gold standard with which to compare them that allows you to be able to say that you know the error rate. A test without an error rate is an unscientific assessment that has no validity at all and should never be used.

Think about it—if you go to the doctor and he does an antibody test and says, "You have measles," how do you know that you actually have measles? Before the advent of the molecular detection tests, the only way that anybody could say that you had "measles" was to rely on the clinical description, but the CDC's about-face says that a clinical description cannot furnish a specific diagnosis. This means that there is no gold standard, which means that the molecular detection tests are not valid tests, which in turn means that they can't tell you whether someone has "measles." A measles diagnosis is essentially a house of cards.

CLAIMING CREDIT WHERE CREDIT IS NOT DUE

Let me pause to note that anyone who says that the measles vaccine was responsible for decreasing the measles death rate is basically either lying or hasn't looked at the U.S. vital statistics data. Figure 1, which shows the decline in measles deaths from 1900 to 1970, very convincingly illustrates that the widespread use of the measles vaccine in the United States in 1968 did nothing to change the death rate, because the death rate was already essentially zero.

However, I would encourage you to ask a different question: "Before molecular detection techniques became available in 1960 or so, how did we know that any of these people actually had something called measles?" The CDC and other authoritative sources have told us in their own words that a clinical assessment cannot distinguish "measles" from other diseases that they tell us exist. So, how do we know that Figure 1 actually reflects an illness called measles? And how can we know that the vaccine decreased the number of measles cases when, prior to the advent of molecular detection techniques (taking health officials on their own terms), we had no way to assess who had measles and who didn't? Then, factor in what I've explained about the molecular detection techniques' inability to serve as valid tests—because there is no gold standard and thus no way to calculate an error rate. Without an idea of how often such tests are right or wrong, the tests are not usable. Again, even on medicine's own terms, we can have no idea at all what the relationship of measles vaccination might be to the incidence of so-called "measles" or to any other illness or the death rate.

Figure 2, showing the decline in measles deaths in England and Wales from 1838 to 1970, reflects the same pattern observed in the U.S. By the time the measles vaccine was introduced in 1968, there was already a 99.8 percent decrease in the measles death rate. Again, however,

Measles diagnosis is essentially a house of cards.

FIGURE 1: U.S. measles deaths per 100,000, 1919–1970

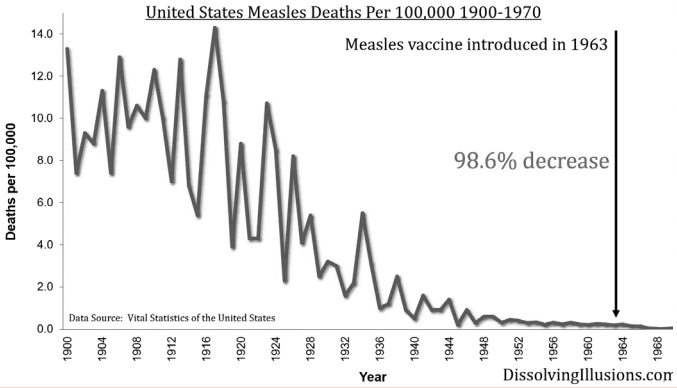
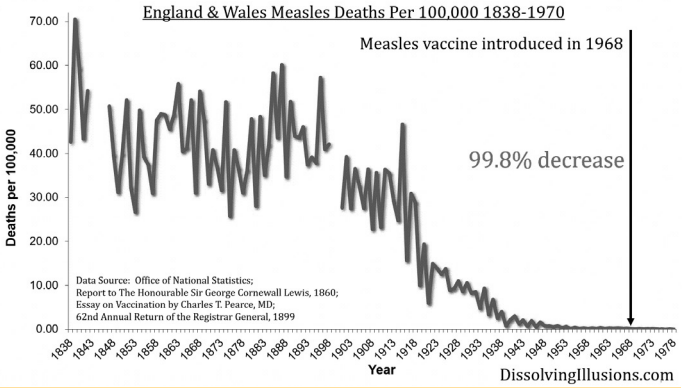


FIGURE 2: England and Wales measles deaths per 100,000, 1838–1970



we run into the same problem. How did they know—in 1838 or 1843 or 1903—that the disease they entered into their vital statistics was "measles" versus "roseola" or six or seven other types of rashes that medicine tells us are distinct entities (all of which were in vogue at the time)?

WHERE'S LOGIC WHEN YOU NEED IT?

There is an obvious bottom line. In the absence of a definitive clinical diagnosis of "measles" and a definitive test for "measles," there is no evidence that a distinct illness called "measles" actually exists. And now we can bring back into the picture the fact that a measles-causing virus has never been isolated, found or purified. Again, the isolation technique developed by Enders actually disproved that they isolated the virus! If you've never had the pure virus, how do you know that a piece of it (the genetic material) actually came from the virus? The answer is, you don't. And how can you know that an antibody directed against the proteins of a virus that you never found are specific to that virus? The answer is, you can't. In short, for a number of reasons, all of the molecular detection tests are basically bogus. Children may experience slightly different permutations of rash, but even if we operate within the CDC's framework, none of their molecular diagnostics can possibly confirm a specific illness called "measles" or any other supposed viral illness.

The science of this is clear, obvious and easy to understand. Any normal person thinking this through will come to the same conclusions. So, why do the CDC and Texas health department claim that they are seeing an outbreak of measles?

One reason is that when assessing an outbreak of children with a rash, fever and runny nose, the CDC automatically says they don't have measles if they've had an MMR or measles vaccine—because they say the vaccine works. This means that the only children they do the tests and clinical assessments on are children who are unvaccinated, and some of those children will probably test "positive" because it's a nonspecific test of tissue breakdown or goodness knows what. Thus, measles becomes a disease of the unvaccinated because those are the only children tested. If that isn't a definition of circular reasoning, I don't know what is! This is all based on the inability to understand logic.

If the only children you test are unvaccinated children and then you say, "Oh my God, it's only the unvaccinated that get it," that's nonsense! But that is what allows officials to claim that these "outbreaks" are confined to the unvaccinated, because—wink, wink—those are the only children they test.

If we take the CDC at its word and accept the fact that before the advent of molecular detection tests there was no way to accurately diagnose measles, then all of the historical data on incidence and changing rates of measles are obviously bogus. Even if we were to accept that something called measles exists, without a way to know who had it and who didn't, there would have been no way to assess changes in the measles rate over time. Essentially, "measles" is a fake diagnosis engineered to finger the unvaccinated. It's a scam to blame the unvaccinated because some children are getting sick.

THE SCIENCE THAT HASN'T BEEN DONE

If I were the HHS Secretary, how would I respond to the situation in Texas? First, I would challenge anyone who disagrees with anything I have said to come up with and present an accurate diagnosis of measles, including how they would validate that Case A is "measles" and Case B isn't. That is the first thing that I would request from any infectious disease people who dispute my assertions.

Next, if you claim that the molecular detection tests accurately diagnose measles, I would ask you to show me a study involving perhaps one thousand children claimed to have measles, and on the basis of those tests, prove that they do, in fact, have something called measles. To do that, you would have to do the same antibody tests on children with a different set of symptoms—one thousand children who are well and one thousand children who have similar symptoms that you don't think are measles (e.g., the conditions you call "roseola," "Fifth disease," "chickenpox" and so on). You would need to show that all of the different parameters—meaning the antibodies, the PCR, the IgM, the IgG, the clinical description and the epidemiology—are unique and specific and can accurately diagnose—without a shadow of a doubt—a case of measles. I have not seen that study, and I'm pretty sure that study doesn't exist, but that should have been the first thing demanded.

In addition, before I would accept a measles diagnosis or any of these tests as being valid, I would need to see a study showing that the antibody test or the PCR differentiates between one hundred children who have measles and one hundred children with rashes that you say aren't measles. And you would also have to do that with healthy children and, for example, with children with leukemia. You would have to prove that your tests are specific for something you call measles. Until someone comes up with that study, I don't buy that there's a specific clinical syndrome called measles, and I don't buy that any of these tests can accurately diagnose measles.

I don't want to hear that your Aunt Hilda had measles and then you got it, or something like that. I don't want stories like that. I want accurate science that proves, using valid logic and scientific methods, that there

is an entity called measles that is caused by an isolated, purified, characterized measles virus, which—by itself—has been shown to reproduce specific symptoms and can be accurately diagnosed with molecular detection techniques. The reality is that none of those things has ever been shown. If we are saying that we want to "follow the science" and "trust the science," then we need to do good science and see the science. I don't see it.

WAYS TO SUPPORT CHILDREN

Florence Nightingale famously said, "The specific disease doctrine is the grand refuge of weak, uncultured, unstable minds, such as now rule in the medical profession. There are no specific diseases, only specific disease conditions." In our era, however, no one will admit that what we are really talking about is just a nonspecific illness process that some children go through.

In terms of what I would do for a child experiencing acute illness of this kind, there is some interesting historical information showing that children do well when they are well cared for and well fed, and, in particular, when they have adequate animal fats. Some people would call that vitamin A, but I even question the existence of vitamin A and whether that's actually the "active ingredient." If I were to admit or claim that it's vitamin A, then someone might want to give children some sort of synthetic vitamin A, and I don't think that is a good idea. Every child who has symptoms of this type of acute illness should be given a teaspoon of cod liver oil and a liberal amount of grass-fed raw butter or a similarly high-quality beef tallow or lard from pigs that were able to forage out in the sun. That should be a great help to support them in overcoming the symptoms that they have.

If more support is needed, I would go to a doctor or practitioner who has studied the New Biology principles. We could look at using slightly more aggressive techniques to help children with the detoxification process of an acute illness, using things like chlorine dioxide and liposomal vitamin C. Those are simple things that pretty much anyone can do at home, and they should make it so that no child has any bad outcomes from this process that they're going through.

I welcome anyone who questions my statements to send me studies proving what the syndrome of measles is, proving that the molecular detection techniques are valid (including all the parameters that I mentioned) and showing me what the gold standard is. Absent that kind of proof, I would say that I'm correct. There is no proven illness called "measles." There is no evidence of any virus causing this supposed illness. The tests and evaluation techniques are clearly bogus and are essentially meant to pin blame on the unvaccinated because, again, those are the only people being tested.

Dr. Tom Cowan is a leading voice speaking out against the mainstream medical narrative. As founder of the New Biology Clinic, Dr. Cowan seeks to provide a collaborative forum for the exchange of knowledge and practices that enable us to forge a new world together, governed by truth. He is the author of several books including Human Heart, Cosmic Heart*;* Cancer and the New Biology of Water*;* The Contagion Myth *(with Sally Fallon Morell); and, most recently,* Commonsense Childrearing: Unconventional Wisdom for a Nourished Childhood.

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Dietary Practices
and Anthropometry of Children from an Indigenous Community in a Village in Mundgod, Uttara Karnataka, India

By Sylvia Karpagam and Anil D'souza

Dr. Weston A. Price's landmark 1939 book, *Nutrition and Physical Generation*, provided powerful evidence that modern diets of refined flour, sugar and vegetable oils were causing nutritional deficiencies that manifested as dental caries and other health issues, including facial deformities, abnormal dental arches and increased susceptibility to acute and chronic disease. On the other hand, Price found that indigenous diets based on seafood, livestock (including organ meats), dairy and fermented foods, with or without plant-based foods, were protective.

Loyola Vikasa Kendra (LVK) is a nongovernmental social action organization operating two centers that run programs in eighty villages. In the spirit of Dr. Price's research, LVK decided to conduct a study to document the dietary practices of three- to six-year-old children in an indigenous village in the South Indian state of Karnataka, with the aim of correlating children's diet with their oral and general health. In addition to focus group discussions and key informant interviews, the researchers (with parental consent) collected anthropometric data and conducted oral and physical exams on forty-nine village children. This article summarizes some of the findings.

STUDY CONTEXT

The study took place in a *gowli* village of one hundred fifty households. The *gowli* are a predominantly pastoral group grazing cattle in forest areas in Uttara Kannada, the fifth largest district in Karnataka. (The word *gowli*, which means "milkmen" or "herdsmen," derives from *gai* or *gao*—the word for "cow.") With a tradition of herding cattle and selling milk, the community migrated to Karnataka seventy-five years ago following a severe drought in their original state of Maharashtra.

Their dairy livestock include native buffalo breeds from Maharashtra and Karnataka—breeds considered hardier and more resistant to disease. Although some families have replaced the indigenous breeds with Jersey cows, study participants described the Jerseys as less resilient and not well suited to forest grazing, making them more expensive to maintain because they require supplemental feed such as rice and groundnut husks. Reportedly, children think that the milk from the indigenous animals tastes better.

Villagers described the indigenous animals as their "connection with the forest," explaining that the manure "enriches the soil and makes the plants and trees and grass grow better." The government's forestry department has been imposing increasing restrictions on forest grazing, alleging destructive impacts, but focus group participants reported that where grazing is not allowed, the forest areas are "dying."

DIETARY PRACTICES

Not surprisingly, the *gowli* community relies heavily on dairy, with a fermented milk-based gruel called *amblee* forming a staple part of the diet. Many children consume milk, both raw and cooked, three to five times a day, often with added turmeric, and adults drink milk in the morning rather than coffee or tea. One study participant stated, "We depend a lot on milk, curd and ghee. We also consume butter. We have *amblee* quite often. . . . We are all healthy because of milk. We also make *majige saaru* [buttermilk curry]."

In addition to dairy foods, the villagers eat fish, chicken, lamb and goat, including offal and blood, as well as some game when available—but they do not eat beef. The diet also includes a variety of seasonal fruits and vegetables, as well as rice, lentils and millet flatbread. Seasonally available ghee, groundnut oil and refined palm oil are the predominant cooking fats. With the restrictions on forest grazing, villagers reported that they are losing access to forest-foraged foods such as tubers, wild honey, herbs and certain leafy greens.

A dry dish called *sooka* made from blood is given to women five days after delivery. Postpartum women also eat a gruel prepared with dry coconut, ghee or coconut oil, pepper and "broken wheat." Infants breastfeed anywhere from four months to five years, depending on whether the mother works outside the home. When they begin drinking milk, they start with cow's milk and do not consume buffalo milk, perceived as "thicker," until at least six months of age. One villager wisely commented, "Doctors ask us to give powdered milk to the children. We say okay but we don't listen to them."

An interview with a six-foot-tall farmer who towered over the other villagers provided insights into recent dietary trends. Recalling how he drank warm milk straight from the cow as a child, he noted that junk food has started appearing in children's diets and suggested that the increased intake of processed foods was causing heights to come down in his community. Some villagers have complained about the "rancid" and "unappetizing" prepackaged

"We depend a lot on milk, curd and ghee. We also consume butter."

TABLE 1. Comparison of stunting and underweight in India, Karnataka and *gowli* village

INDICATOR	INDIA	KARNATAKA	*GOWLI* VILLAGE
Moderate stunting	37%	35%	18%
Severe stunting	14%	15%	2%
Moderate underweight	34%	33%	8%
Severe underweight	10%	11%	0%

The *gowli* children had better indicators for expected heights and weights for age compared to the national and state averages.

foods and powdered milk served to children at the local preschool. The long-standing demand of "right-to-nutrition" groups has been that school food be prepared by *dalit* women from the local community using local ingredients. (*Dalit* women belong to the lowest category in the caste structure of India, often labelled as "untouchable" and not allowed to handle food but rather work related to sanitation.)

PHYSICAL AND DENTAL HEALTH

The *gowli* children had better indicators for expected heights and weights for age compared to the national and state averages. Roughly three out of four children assessed (73 percent) had expected height for age, and 88 percent had expected weight for age. Table 1 compares children in India, Karnataka and the study village on indicators of stunting and underweight.

On general physical examination, nearly all (98 percent) had clear eyes and skin, and good cardiovascular and respiratory health. A few children had signs of healed skin conditions.

The majority of village children had sound dentition and good facial structure, as shown in Table 2.

When the study team compared the dietary practices of the children with and without dental caries (cavities), they found that among the children with no dental decay, 74 percent consumed milk three to five times a day, "undiluted" but not necessarily raw; only four of the children had consumed raw milk in the week of the survey. Regular milk consumption among children with one or more cavities was lower (48 percent), with some of those families reporting economic hardships that made it necessary to give the children milk only "as and when possible."

Three out of four children (74 percent) in the no-cavity group had consumed organ meats (intestine, liver, blood) in the previous month, versus 46 percent of the group with one or more cavities. About the same number of children in each group had eaten some kind of junk food in the week of the survey.

CONCLUSION

Although the study provided a glimpse into the encroachment of the "displacing foods of modern commerce" into the diet of rural Indian children, including junk foods and powdered or heated milk, overall, the research team found that village children from groups with a strong tradition of dairy consumption—including fermented and raw dairy—appear to drink more milk than their urban counterparts. Comparable survey results from urban preschools would help confirm this. A small number of parents commented that their children did not like the taste of organ meats, but in general, the regular consumption of offal such as liver and blood also still seems to be supporting the dental and physical health of many of these village children.

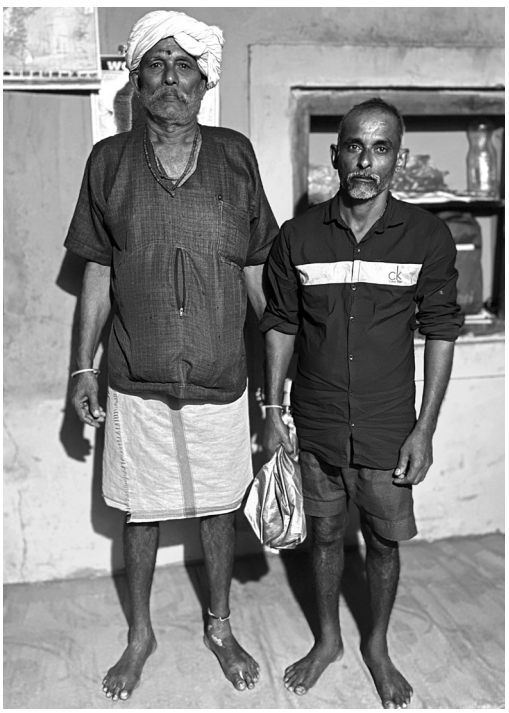
With acknowledgements to Dr. Svarooparani Patel, Jerald D'souza (director, St. Joseph's College of Law), Loyola Vikasa Kendra, Mundgod.

TABLE 2. Key findings from oral examination of *gowli* children

INDICATOR	%	COMMENTS
Misaligned teeth	8%	Two children had open bites; one had a dental gap (diastema).
Abnormal palate	0%	None had a cleft palate
Overbite	4%	No comments.
Dental fracture	10%	The fracture was in the incisional edge of a single tooth.
Narrow facial structure	8%	All but one child had wide, flared nostrils.
Cavities present	32%	The number of cavities ranged from one to six teeth.

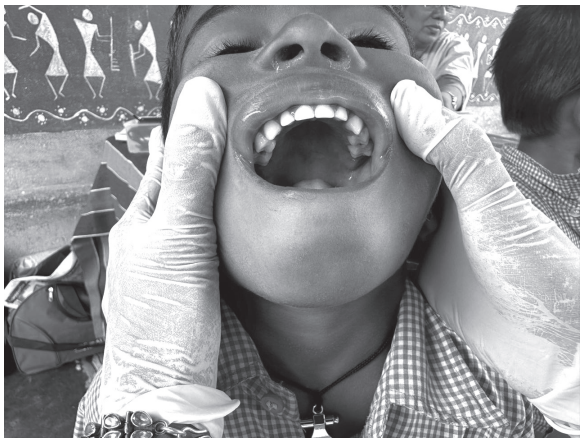
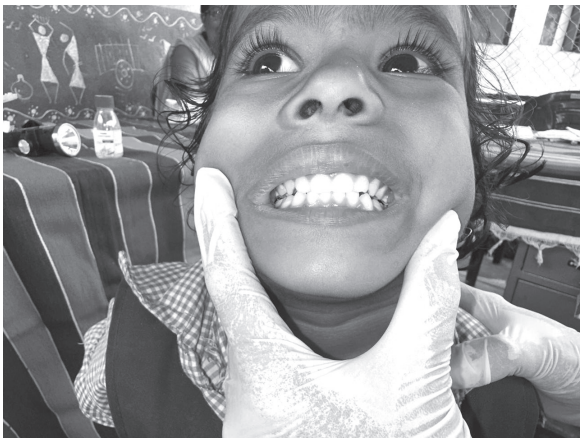
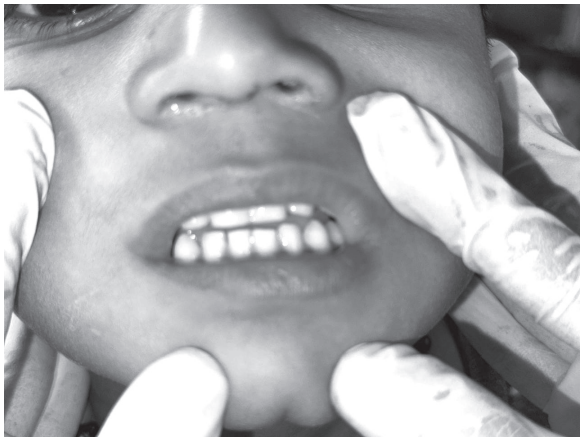
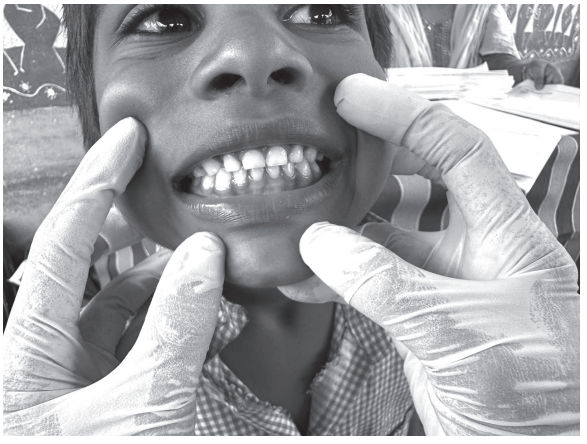
The village dairy livestock include native buffalo breeds from Maharashtra and Karnataka—breeds considered hardier and more resistant to disease.

An elevated sheep pen, to protect the sheep from snakes.



A six-foot-tall farmer who towers over the other villagers recalls how he drank warm milk straight from the cow as a child. He believes that the increased intake of processed foods is causing heights to come down in his community.

A handsome village woman with her two well-formed children. But note the cell phone in her left hand—one of the modernities that come in with processed food.

The majority of village children had sound dentition and good facial structure; only 8 percent had misaligned teeth. The basis of the village diet is milk and milk products, meat and organ meats.

Reading Between the Lines

By Merinda Teller

Anticoagulants: Skating on Thin Ice

Life-threatening blood clots (thrombosis) are associated with events like stroke, heart attack and pulmonary embolism (PE). To break down existing clots or prevent clots from forming, doctors rely heavily on a pharmacopoeia of anticoagulant and antiplatelet drugs, together colloquially referred to as blood thinners. As "commonly prescribed medications," doctors frequently recommend them for individuals with atrial fibrillation (AF), often a precursor to coronary thrombosis,[1] or for patients undergoing elective surgeries such as knee or hip replacements or heart valve replacements.[2] Eight million Americans take prescription anticoagulants,[3] and hospitals routinely administer them to a third of all patients.[2]

Joint replacements can potentially cause clots to form in the legs, a condition called deep vein thrombosis (DVT), which sometimes leads to PE. Together, DVT and PE are referred to as venous thromboembolism (VTE). Cohort studies that looked at VTE in the U.S. in the early 2000s reported an annual incidence in adults of around one in one thousand.[4] Currently, around nine hundred thousand Americans develop VTE every year, and one to three hundred thousand of those die.[5] In addition, anywhere from one-fifth to one-half of individuals with DVT develop "post-thrombotic syndrome," manifesting as leg pain, heaviness, swelling or ulcers.[6]

Somewhat surprisingly, medical authorities accept some iatrogenic blame for VTE, attributing 42 to 52 percent of such events to the exogenous "triggering factors"[4] of hospitalization and surgery—including joint replacements.[7] Among people who have had a total knee or hip replacement, VTE is the third most frequent reason for unplanned readmissions to the hospital,[8] and among all surgical patients, the medical literature describes VTE as the most common preventable cause of death.[9]

FROM BAD TO WORSE

Anticoagulants, by definition, interfere with normal clotting processes.[2] This means, ironically, that their top risk and most worrisome adverse event is "unwanted and sometimes dangerous bleeding."[3] None of the blood thinners developed over the past century have escaped this apparently inevitable mirror-image problem. Colorfully comparing blood thinners to Goldilocks' porridge, a November 2024 *People's Pharmacy* article titled "Patients Walk a Dangerous Tightrope on Blood Thinners" explained it this way: "If the dose is too high, the risk of bleeding goes up dangerously, as if the porridge were scalding hot. Too low, and the medicine loses its ability to prevent blood clots, as if the porridge were too cold to be satisfying. The 'just right' dose with an anticoagulant must strike a balance between clot prevention and bleeding control."[10] Unfortunately, the drugs at their disposal make it difficult for clinicians and patients to strike the "just right" note.

The oldest anticoagulant is heparin, which has occupied a long-standing spot on the World Health Organization's Model List of Essential Medicines[11] and is in use worldwide.[12] It first arrived on the clinical scene in the 1930s as unfractionated heparin (UFH), which doctors administer intravenously.[13] However, UFH's "broad and unpredictable" bioactivity[14] requires continuous monitoring to ensure that it performs its anticoagulation job without veering too far in the opposite direction.

Clinicians were pleased when fractionated low molecular weight heparin (LMWH) emerged in the 1970s, because it seemed to promise more predictability and offered patients the possibility of subcutaneous self-administration at home.[15] However, both UFH and LMWH sometimes produce a delayed type of allergic reaction called heparin-induced thrombocytopenia[16] (HIT), which, in an estimated 1 percent of recipients, triggers a dangerous "chain reaction of clotting."[2] Because of its dosing, monitoring and dispensing logistics and adverse event profile, the Institute for Safe Medication Practices and other organizations continue to classify heparin as a "high-risk" medication that can potentially cause significant harm.[17]

Heparin came to particular public notice in 2008 when tainted heparin manufactured in China resulted in hundreds of severe reactions that killed dozens,[18] described in alarming detail in the 2018 pharmaceutical exposé *China Rx*.[19] The Pew Charitable Trusts cites these events as "a tragic example of the risks resulting from an increasingly globalized and complex pharmaceutical manufacturing system," with 80 percent of active pharmaceutical ingredients (APIs) manufactured overseas.[20] In 2022, PharmacyChecker observed that drug marketers are under no obligation to disclose country of manufacture.[21] PharmacyChecker's research of

Direct oral anti-coagulants became blockbusters right out of the gate.

the top one hundred brand-name prescription drugs found that the vast majority are made overseas, often in Europe; most generic drugs and their APIs are made in China and other Asian countries.

In the 1940s, scientists identified a natural substance in moldy hay (coumarin) that produced an oxidized poison called dicumarol; in 1948, a "particularly potent" synthetic derivative entered the market as a rodenticide, dubbed "warfarin" in honor of its research funder, the Wisconsin Alumni Research Foundation (WARF).[22] Six years later, warfarin (brand name Coumadin) not only was the most popular rat poison in the world but gained regulatory approval as a human anticoagulant that could be administered either intravenously or orally; researchers had discovered that it lessened clotting by reducing the action of vitamin K. Initially, as one account decorously puts it, "The association of the name 'warfarin' with rat poison did lead to some hesitancy among doctors to recommend it and among patients to take it,"[23] but by the 1960s, warfarin had become the "reference treatment" for VTE events.[24]

As with heparin, "over-anticoagulation" with Coumadin (or generic warfarin) is a serious concern.[25] The drug also interacts poorly with other medications such as antibiotics. Describing the need for warfarin to be "carefully calibrated," a 2015 ProPublica report documented appalling deaths and injuries caused by Coumadin in nursing homes, characterizing the facilities for seniors as "a perfect setup for bad things happening."[26] An expert interviewed by ProPublica called Coumadin "the most dangerous drug in America" because "it's so easy to get wrong." The report also suggested that most of the harms caused by the drug go undocumented and uninvestigated.

A 2019 study documented problems among patients "doubling up on blood thinners," looking at people who were taking both aspirin and warfarin.[27] A whopping forty-seven million Americans take aspirin for blood thinning purposes.[28] Among those taking the combo, 5.7 percent had a major bleeding event within a year, versus a still-suboptimal 3.3 percent of individuals taking warfarin only.[29] The lead author remarked, "Nearly 2,500 patients who were prescribed warfarin were taking aspirin without any clear reason. . . . No doctors really own the prescribing of aspirin, so it's possible it got overlooked."[27] (In a 2018 *Wise Traditions* article, Dr. Tom Cowan gives multiple reasons to question the wisdom of taking daily aspirin, even at very low doses.[30])

"DIRECT" DOES NOT MEAN BETTER

The 2010s introduced further dangers when pharma brought a new class of drugs called "direct oral anticoagulants" (DOACs) to market. The word "direct" refers to the fact that through the biotech trick of "fabricat[ing] small molecules designed to fit into the active component of clotting enzymes, like a key into a lock," the drugs directly inhibit coagulation proteins.[24] Leading drugs in the DOAC category include Eliquis (apixaban), co-owned by Bristol Myers Squibb (BMS) and Pfizer,[31] and Xarelto (rivaroxaban), jointly developed by Johnson & Johnson (J&J) and Bayer; both work by inhibiting an enzyme called activated factor X (FXa), an important blood clotting enzyme.[32] Pradaxa (dabigatran), made by German manufacturer Boehringer Ingelheim, inhibits thrombin, deemed "the key enzyme in the coagulation cascade."[33]

DOACs became blockbusters right out of the gate.[34] A 2022 article about anticoagulant history and trends argued that DOACs have "substantially facilitated VTE treatment," approvingly speculating that "in the coming decades DOACs will most likely be more and more prescribed instead of other anticoagulants."[24] Another 2022 study that compiled data from eighty-eight U.S. health systems confirmed the trend, documenting dramatic changes in anticoagulant use among adults with AF between 2011 (the year when FDA approved Xarelto) and 2020, with DOAC use rising from 4.7 to 47.9 percent and warfarin use declining from 52.4 to 17.7 percent.[35] The authors noted that two out of three "high-risk" AF patients were on anticoagulants. (Some studies have drawn attention to the problem of anticoagulant overprescribing in AF patients.[36])

By 2018, Xarelto had become Bayer's top-selling drug,[37] but thanks to strategic investments in marketing and "patient education initiatives,"[38] Eliquis has now raced ahead to become the undisputed leader of the DOAC pack.

According to trade rag *Fierce Pharma*, Eliquis has been a "reliable growth driver" for its two owners ever since its debut in 2012 for AF and then with expanded indications in 2014 for DVT and PE.[39] The drug's steadily rising sales gave it (as of 2021 when it was competing with Covid injections) the enviable status of being the fifth top-selling pharma product worldwide.[39] In the U.S. that year, an estimated four million patients filled an Eliquis prescription, causing the drug to jump fifteen ranks in a single year to become the thirty-third most prescribed medication in the American market.[40] By 2023, Eliquis had claimed 41 percent of the U.S. anticoagulant sector, settling in as a "preferred choice" over options such as Coumadin[41] and beating out Xarelto despite the latter's earlier market entry.

UNDESERVED HYPE

The three leading DOACs (Eliquis, Xarelto and Pradaxa) come with two boxed warnings—the most serious type of safety-related warning that the Food and Drug Administration (FDA) is willing to issue. The first warning is bad enough; patients taking one of the blood thinners who undergo certain spinal procedures could develop spinal or epidural blood clots that might cause long-term or permanent paralysis. Even worse, however, is the conundrum faced by patients who want to *stop* taking a DOAC; doing so may increase their risk of blood clots, stroke or PE! Eliquis's manufacturers advise doctors to "consider another anticoagulant if they take a patient off [the drug] before treatment is completed for any reason other than 'pathological bleeding.'"[42]

Drugwatch discreetly suggests that BMS and Pfizer may have fudged their data during a China-based clinical trial for Eliquis called the ARISTOTLE study. After it came to light that during the trial "patients received the wrong medicines, records were secretly changed and 'serious adverse events' went unreported,"[43] the FDA delayed its approval for nine months—but then went ahead and gave Eliquis a green light anyway. The manufacturers' dubious claims about the drug's supposedly superior safety profile have proved to be persuasive for both clinicians and patients, but Drugwatch reminds the public that "some patient records simply disappeared prior to site visits by the inspectors":

> "[The FDA medical team leader] specifically noted that the statistical results for lower overall deaths stemming from use of the drug 'might not be valid'; meaning taking Eliquis may result in just as many deaths as other blood thinners, but since data was missing or included errors, it is impossible to know for sure."[43]

Older adults are more likely to have conditions that increase their risk of Eliquis side effects.[44] This fact seems to have gone unnoticed, because Eliquis is a particular favorite among the Medicare population. Medicare typically covers Eliquis under Medicare Advantage (Part C) or Medicare Part D, even though it ranks among the ten most expensive Medicare drugs. In August 2024, the federal government announced with great fanfare that it had negotiated a lower price, though the reduction from a $521 list price (based on a thirty-day supply) to $231 will not take effect until 2026.[45] One should not feel too sorry for the manufacturers' projected reduction in profits, because they have steadily increased the price of Eliquis—by 124 percent—since its launch.[46] The government watchdog group Accountable.US reported on manufacturer hypocrisy last year; describing the argument by BMS and seven other pharma giants that Medicare price reductions would impede their research and development (R&D) efforts, Accountable pointed out that the companies' spending on "political activity, executive compensation and handouts to wealthy investors" far outstripped their modest spending on R&D.[47] Moreover, they added, American seniors and patients are subject to the highest prescription drug prices in the world.

Older adults also have been bamboozled by the marketing hype about Eliquis's favorable "patient-focused attributes"—for example, its oral mode of administration and more "lenient" monitoring. The University of Michigan cautions health care providers that Eliquis and other DOACs "have their own complicated dosing schemes that can vary based on factors such as kidney function and select interactions between drugs," adding, "Any health system that aims to improve safe and effective DOAC prescribing must address the ongoing prescribing period which can last months to years."[48] Unfortunately,

"Some patient records simply disappeared prior to site visits by the inspectors."

One of the researchers said, "The lesson is to prevent these bleeding events because once they appear, even if you give an antidote, the outcome is poor."

studies show that many doctors have limited experience in managing bleeding risks.[49]

BLEEDING TO DEATH

According to a 2021 article published in *The Hospitalist*, over one hundred thousand individuals experience DOAC-related "major bleeding" each year in the U.S. and European Union.[50] Commenting on a study that found an extremely high mortality rate (17.7 percent) among patients who had access to "reversal agents" (that is, antidotes), one of the researchers said, "The lesson is to prevent these bleeding events because once they appear, even if you give an antidote, the outcome is poor, particularly for intracranial bleeding."[50] In a December 2024 study that compared the risk of mortality between DOAC and warfarin users in the UK and Hong Kong, the researchers found that as long as careful monitoring took place, warfarin use "was associated with a lower hazard of all-cause mortality, compared with DOAC use," although they also acknowledged that analysis of cause-specific mortality might reveal a more complex picture.[51]

When DOACs fail, they fail spectacularly. A *People's Pharmacy* reader described her mother's rapid decline after taking Xarelto for two months; her mother ended up in a coma, and when doctors subjected her to abdominal surgery, she lost five pints of blood; four days after she was sent back into surgery for cauterization of her arteries, she died from internal bleeding in the stomach and head.[10] It is not hard to find similar stories about Eliquis.[52,53]

The alarming scale of bleeding-related injuries and deaths experienced by patients taking one of the three leading DOACs has given rise to thousands of lawsuits, with users alleging that the manufacturers intentionally understated the drugs' risks. In 2014, Boehringer agreed to a $650 million Pradaxa-related settlement to resolve over four thousand cases; this was followed in 2019 by a paltry $775 million settlement for nearly twenty-five thousand Xarelto-related lawsuits; J&J/Bayer admitted no liability but stated that their product liability insurance would help cover the settlement costs.[37]

In the case of Eliquis, plaintiffs alleged not only that the two manufacturers had "concealed knowledge of Eliquis' defects and negligently and fraudulently misrepresented the drug's safety and risks"[43] but also pointed to the manufacturers' failure to disclose the disturbing fact that if someone experienced life-threatening internal bleeding, the bleeding essentially was irreversible because, until 2019, Eliquis had no antidote. Right after the FDA conditionally approved a drug called Andexxa (recombinant coagulation factor Xa) as an Eliquis reversal agent, a federal judge conveniently dismissed all Eliquis litigation.[43] Drugwatch reported in April 2025 that it was "unaware of any lawyers still accepting Eliquis lawsuits."

WHAT ABOUT THOSE ANTIDOTES?

The FDA's "accelerated approval" for Andexxa allows it to be given to Eliquis and Xarelto users who experience severe or uncontrolled bleeding. In 2020, the company Alexion acquired Andexxa's developer, Portola Pharmaceuticals, for $1.4 billion, and a year later, AstraZeneca scooped up Alexion for $39 billion, apparently anticipating record profits. In late 2024, however, FDA signaled that it was having second thoughts about progressing to

THE CLOTS THAT CONVENTIONAL MEDICINE WON'T TALK ABOUT

In the wake of the Covid injection rollout, strange blood clots began attracting the attention of many professional groups, including embalmers. By mid-2021, morticians were reporting increased clotting across all age groups.[62] In official circles, of course, the sudden emergence of weird arterial and venous clots in healthy individuals was and remains "rare" and "unusual," variously blamed on influences such as coffee,[63] hot (or cold) weather[64] or conveniently elusive scapegoats such as "post-pandemic stress disorder."[65]

Since Covid, the "prepandemic upward pattern" in anticoagulant prescribing—and, notably, prescribing of Pfizer's Eliquis—has continued apace (aside from brief disruptions during the early months of 2020). Discussing this, a researcher writing in January 2023 remained mum about the blood clots associated with Pfizer's Covid shots but suggested that the increased demand for anticoagulants made by Pfizer and others might reflect "both the growing understanding of the relationship between severe COVID-19 and blood clots and the rise in hospitalizations for acute cardiovascular disease after May 2020."[66]

full approval, citing "major safety findings."[54]

Indeed, Andexxa comes with the warning that the medication can cause "some serious health issues." Side effects listed as "more common" include anxiety or confusion; blue lips, fingernails or skin; breathing difficulties; cardiac symptoms such as chest pain or discomfort, tightness in the chest and fast heartbeat; sweating; nausea and vomiting; cough; decreased urine output; dilated neck veins or neck pain; swelling (of face, fingers, feet, arms or legs); dizziness, lightheadedness and fainting; double vision; extreme tiredness or weakness; headache; inability to move arms, legs or facial muscles; and difficulty speaking, slowed speech or inability to speak.[55] Information for health care professionals indicates that adverse events affecting the cardiovascular, genitourinary, hematologic, immunologic, nervous and respiratory systems are all "very common," as is death (in up to 15 percent of patients "prior to the day 30 follow-up visit").[55]

Doctors have also used a warfarin antidote called Kcentra (prothrombin complex concentrate), made by CSL Behring, as an off-label reversal agent for Eliquis and Xarelto. Its top warnings include thromboembolic complications and serious allergic or anaphylactic-type reactions.[56]

Conveniently, Boehringer makes its own antidote for Pradaxa, covering both ends of the market. Praxbind (idarucizumab) has another lengthy list of serious side effects, many of which are similar to Andexxa's, with the addition of colorful symptoms such as bone pain, convulsions and seizures, hives, nervousness, nightmares, sudden loss of coordination and coma.[57]

In 2019, a nurse and concerned wife posted an insightful comment at the *People's Pharmacy* in response to an article about DOAC antidotes; her comment is worth quoting at length [CAPS in original]:

> "Cardiologists love Eliquis—whether they believe it is superior to warfarin or they're the victims of eloquent marketing. The reality is that this and other similar drugs are fairly new, so if history is any indication, we WILL find unexpected and/or unadvertised effects. Andexxa is VERY new. There's little data collected to judge just how effective it is in reversing bleeding episodes and avoiding serious outcomes. Praxbind. . . has shown mixed results, and I anticipate that Andexxa will have similar lukewarm performance. As a registered nurse whose spouse recently started Eliquis, I was anxious, and vigilant in assessing him for any side effects. He did develop petechiae [...] scattered all over his lower legs. Consulting his doctor, a trip to the emergency room and lab tests resulted in physicians shrugging their shoulders, since this is not a KNOWN side effect of Eliquis. . . One note: Eliquis is prescribed in a 'one size fits all' dosage. There is no ability to individualize the dose since there is no testing. To my mind, this increases the possibility of both bleeding episodes and clotting problems."[58]

QUALITY OF LIFE IMPLICATIONS

The very real risks of experiencing major bleeding as a result of taking widely prescribed anticoagulants have significant quality-of-life implications. In a 2020 press release, the National Blood Clot Alliance (NBCA) shared survey results showing that over half (55 percent) of American adults who take anticoagulant medications "very much or somewhat fear experiencing a life-threatening bleed," and among those, almost three-quarters report feeling "more cautious about routine activities."[59] The NBCA summed up the sad findings as follows:

> "The results of our survey demonstrate that people are making lifestyle decisions—possibly avoiding activities and hobbies they love—such as gardening or exercising—because they are afraid of experiencing serious or dangerous bleeding as a side effect of their blood thinning medication."

Among the routine activities that seemed to prompt greater caution were cooking, using sharp tools and knives, shaving, brushing teeth, flossing and going barefoot. Patients also reported feeling worried when engaging in leisure activities such as gardening, working out, traveling or playing with children and grandchildren. Even more tragically, 42

LIVER TOXICITY: AN OPEN QUESTION

After the use of Eliquis and other DOACs took off, a subset of researchers began sounding the alarm about the drugs' liver toxicity. A 2023 meta-analysis assembled case reports of DOAC-induced liver injury in twenty-seven patients who experienced symptoms such as jaundice, elevated liver enzymes, elevated bilirubin levels and "features of acute hepatitis and cholestatic injury."[67] The average time to onset of liver-related symptoms was around forty days. Although reassuringly commenting that all but one patient (who died) ultimately had favorable outcomes, the authors noted that DOACs' relatively short track record and rising use require more extensive post-marketing and population-based studies, with the drugs' liver toxicity "yet to be completely determined." Other researchers have likewise acknowledged the lack of real-world data on liver injury risks associated with DOACs.[68]

percent reported that blood thinner concerns had "discouraged them from trying new activities."

PRESCRIBING CONTINUES APACE

There is near unanimity in the medical literature that anticoagulant-related bleeding incidents are unfortunate. Even so, almost no one is offering any answers or transparently educating AF patients, surgery recipients or others about anticoagulant risks. Still, fewer mention natural alternatives for blood clotting such as nattokinase, blackstrap molasses, cayenne, ginger or DMSO.[60] Instead, some of the medical researchers who are concerned about bleeding think that one solution could be for patients to add drugs like proton-pump inhibitors to their regimen to lessen the risk of gastrointestinal bleeding.[27]

In 2020, the Lown Institute sounded a rare note of caution in an article about AF patients, warning that "clinicians need to be aware of the potential harms" of blood thinners and arguing that "there is no clear 'right answer' for all patients."[61] The article also reasonably observed, "The goal of patients is their global well-being, a goal that does not necessarily align with the optimal end point for each of their medical conditions. It is the fundamental role of the primary care physician to balance these conflicting concerns."

Even fans of DOACs admit that their pet drugs have limitations, stating, "The perfect anticoagulant should be well-tolerated by the entire patient population, be orally administered with a wide therapeutic window, and have favorable absorption, distribution, and elimination. In addition, efficacy of the drug should be easy to test, a proper neutralizing agent should be available, and, perhaps most importantly, the drug should have limited to no side effects such as bleeding."[24] None of the drugs currently in use comes anywhere close to perfection.

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Homeopathy Journal

HOMEOPATHY AND MEASLES

By Anke Zimmermann, BSc, FCAH

Disclaimer: The information provided does not constitute the prevention, diagnosis or treatment of any disease or health condition. It is provided for educational purposes only. Readers are advised to seek professional advice in case of illness.

In recent weeks. the mainstream media in America have been serving up fresh measles drama with a side of public health panic and a main course of vaccine-maker horror, touting disability and death as likely outcomes from measles.

All this for only around one thousand measles cases in the U.S. this year (as of May 7), but the media are describing 2025 as "the second worst year since the disease was eliminated."[1] The U.S. declared measles eliminated in 2000.[2]

The measles vaccines introduced in the 1960s and the measles-mumps-rubella (MMR) vaccine launched in 1971 have been widely credited, in public health circles, with the dramatic reduction in measles cases and outbreaks.[2]

Measles used to be a normal and expected childhood illness. The Centers for Disease Control and Prevention (CDC) has admitted that prior to measles vaccine licensing, "because virtually all children acquired measles, the number of cases probably approached 3.5 million per year."[3] Other sources suggest even higher historical numbers, with up to five million cases per year.[4]

Usually a rite of passage leading to lifelong immunity and other long-term health benefits,[5] measles should still be treated with respect as it has the potential to cause complications, including ear infections, deafness, pneumonia, conjunctivitis with keratitis leading to blindness, severe and persistent diarrhea, seizures, acute encephalitis, behavioral and intellectual deterioration and, rarely, subacute sclerosing panencephalitis, a progressive demyelinating disease.[4,6,7]

Measles complications can also lead to death, although the death rates in well-nourished children are estimated to be around one to ten in ten thousand.[7] In areas of the world where malnutrition (and especially vitamin A deficiency) is common, or where immune systems have been weakened by other diseases, measles complications and deaths are much higher.[8] Several studies on providing two doses of 100,000 IU of vitamin A on consecutive days showed large reductions in complications and deaths from measles in low- and middle-income countries, even in severely malnourished children.[9-11] (For more on vitamin A and measles, see the article by Sally Fallon Morell in this issue of the journal.)

The MMR vaccine may be helping to prevent or suppress the disease, but it comes with a very high price tag of most likely being a main contributor to the autism epidemic, which is now affecting one in thirty-one of currently eleven-year-old children in the United States,[12] up from one in ten thousand in the early 1970s. In my clinical practice, which focuses on autism and related complex challenges, the main story I've heard from over one thousand parents is that the child descended into autism after receiving the MMR vaccine at twelve or fifteen months. I don't think that the MMR vaccine "causes" autism by itself; rather, it is part of an accumulation of stressors over time, which includes other vaccines, medications, toxic input and poor nutrition. Nonetheless, the MMR may be a significant contributor to this lifelong, highly disabling condition.

In my practice, I have also heard hundreds of reports of children developing symptoms resembling complications from measles after the MMR vaccine. This includes the onset of chronic and persistent ear infections, chronic diarrhea and constipation, recurring respiratory infections, seizures, symptoms of encephalitis, meningitis, the sudden development of aggression, night terrors and more. A majority of these children have responded positively to homeopathic preparations of the MMR vaccine, which further supports the suspicion that the vaccine was a contributing factor.

There is a growing body of research on the topic,[13-16] including reports on the intentional destruction of research findings linking the MMR vaccine to autism.[17] In addition, there are literally thousands of reports by parents in online forums detailing their child's regression into autism or other serious health complications after the MMR vaccine.

HOMEOPATHY HAS SOMETHING TO OFFER

Naturally, the current media coverage, with its emphasis on complications and death, is

inducing anxiety in parents, including in those who chose not to vaccinate their children. I have often been asked whether homeopathy has something to offer in case an acute measles infection arises.

Historically, homeopathy was widely used in the nineteenth and early twentieth centuries in both Europe and North America to address the different stages and symptoms of measles, which usually arose in epidemic waves. In fact, the dramatic rise in popularity of homeopathy during that time was directly associated with its effectiveness in the treatment of various epidemics, in which homeopathy achieved extremely low mortality rates.[18]

As I have only ever seen one suspected case of measles myself, I need to refer to historical records of that time, including those of the famous Dr. Dorothy Shepherd (1885–1952), who was a British medical doctor and a prominent figure in the field of homeopathy during the first half of the twentieth century.[19] Although trained as a conventional medical doctor, Shepherd "converted" to homeopathy early in her career after witnessing its profound effects. She treated many patients in the poor communities of London (including in children's homes), kept meticulous records of her success and wrote several influential books. *Homoeopathy in Epidemic Diseases* documents her success in treating epidemic illnesses with homeopathy, including measles, cholera, typhoid and influenza.[20] In the book, she described her treatment of measles during a severe outbreak in a children's home.

REMEDIES FOR MEASLES SYMPTOMS

Measles symptoms typically begin with a high fever up to 104°F, a runny nose, cough and red, watery eyes. Two to three days after symptoms begin, small white spots (Koplik's spots) may appear in the mouth. About two to three days later, a fine, pink rash starts in the face and spreads over the body and limbs, lasting about four to seven days. During this stage, the fever may spike again to 104°F. During the final stage, the fever breaks, the rash darkens and fades, with peeling of the skin, which can last about ten days. Note that this timeline is a guideline only and can vary from person to person.

Homeopathy does not treat diseases per se but rather supports the body's natural ability to heal itself. Remedies are always matched closely to the presenting symptoms. Because a typical case of measles usually progresses through different stages, homeopathic remedies may need to be rotated to match the changing symptoms.

Dr. Shepherd reported remarkable success with homeopathic treatment in measles, often achieving complete, speedy recovery without complications, hospitalization or fatalities. She individualized her approach—choosing remedies based on the totality of symptoms,

Homeopathy was widely used in the nineteenth and early twentieth centuries in both Europe and North America to address the different stages and symptoms of measles.

SUMMARY OF REMEDIES TO CONSIDER IN MEASLES

ACONITE: Early stages of illness. Sudden, acute, violent onset with high fever, often at 1:00-2:00 a.m. and often after exposure to cold, windy weather. Great thirst, restlessness and anxiety.

BELLADONNA: Early stages of illness. Sudden, acute-onset, high fever with hot, congested head, headaches, glassy eyes with dilated pupils. Onset often at or around 3:00 p.m. or 3:00 a.m.

BRYONIA: Middle stage of illness. High fever, rash delayed, great dryness of mouth and lips, wants to lie still, worse with motion, hard, painful cough, great thirst.

EUPHRASIA: Eye symptoms during measles, watery, burning eye discharges, photophobia.

GELSEMIUM: Apathy, dullness and weakness, fever, spasmodic cough and fluid coryza.

MORBILLINUM: As a prophylactic remedy as well as for treatment, to strengthen the immune response.

PULSATILLA: Middle stage of illness. Mild, weepy, clingy children, yellowish discharges, worse in warm rooms, thirstless.

STRAMONIUM: Neurological symptoms, shrieking, night terrors, development of sudden, intense fear and/or aggression in conjunction with or following measles.

SULPHUR: Later stages of illness. To stimulate eruption of rash, for slow recovery, to finish the case.

the patient's temperament and the progression of disease.[20] She also recommended common-sense measures such as rest, supportive care and fresh air.

Please note that in the following description of remedies used by Dr. Shepherd, most are commonly used in other respiratory and febrile illnesses as well; their use is not exclusive to measles. In addition to those listed below, there are many other homeopathic remedies that may be indicated in the alleviation of measles symptoms; selection of remedies always needs to be tailored to the individual. All remedies mentioned can be used in a 30C potency given three to four times a day or as needed.

ACONITUM NAPELLUS (*Aconite*)

Aconite is a common early-stage remedy in many acute illnesses, and Dr. Shepherd used it in early measles symptoms as well. Symptoms tend to come on suddenly and violently, often after exposure to very cold and windy conditions and often around 1:00 to 2:00 a.m. The child may have a high fever, great thirst, restlessness and anxiety.

BELLADONNA

Dr. Shepherd used *Belladonna* more than *Aconite* as an early-stage remedy. Again, *Belladonna* is a common acute remedy in febrile conditions with intense symptoms. The child may have a high fever with a flushed face, headaches, bright glassy eyes and dilated pupils and signs of cerebral congestion. The head may feel hot and the feet cold. There may be great sensitivity to light, noise or touch. The child may be slightly delirious and see things that are not there. Symptoms may come on or worsen at 3:00 p.m. or 3:00 a.m.

BRYONIA ALBA

Dr. Shepherd found *Bryonia* to be the most indicated remedy for measles. She used *Bryonia* more often during the middle stage of the illness, especially if symptoms developed slowly over two to three days. *Bryonia* is a commonly used remedy for influenza, which shares many similarities with measles. In situations pointing to *Bryonia*, the child may have a high fever and be very irritable, wanting to be left alone. The cough may be very hard, dry and painful. There is usually great thirst for water and a desire for fresh air.

Dr. Shepherd noted that *Bryonia* could be helpful if the illness was progressing too slowly and the rash was not appearing in the usual time. Her book gives an example of a girl with measles whose fever had subsided, but the rash had not fully developed. She had a dry, painful cough, wanted to be left alone, wanted to lie very still and complained about dryness in her mouth and throat. After dosing with *Bryonia*, the rash appeared more fully, the cough became looser and her irritability lessened. Full recovery followed shortly thereafter.

PULSATILLA

Pulsatilla is useful in the early or middle stages of the illness if there is only a mild fever and the rash is slow to develop or fades too soon, especially in a milder-natured child with a soft, emotional temperament. The child may be clingy and weepy, thirstless and desiring fresh air. There may be yellow discharges from the nose and/or eyes with conjunctivitis. Dr. Shepherd reported a case of a girl with measles who had a mild fever, slow developing rash, yellow mucus from the nose and no thirst, who was tearful and wanted attention and cuddles. After taking *Pulsatilla*, the rash developed well, symptoms eased and the child returned to normal behavior within a day or two.

GELSEMIUM

Gelsemium is another remedy often used in influenza as well as measles. The child can have a high fever and is dull, apathetic, weak and does not want to be disturbed. There may be a watery, runny nose and barking, spasmodic cough. The key symptoms are the apathy and weakness so typical of *Gelsemium*.

EUPHRASIA

Euphrasia is mostly used for eye symptoms during measles, including watery, burning eye discharge, sensitivity to light and a bland nasal discharge. Eye symptoms are very common during measles, and Dr. Shepherd used *Euphrasia* as needed.

STRAMONIUM

One of our premier neurological remedies in homeopathy,[21] *Stramonium* may be indicated if the child develops sudden shrieking and night terrors in conjunction with measles as well as intense fears and/or aggression. *Stramonium* can be thought of as more of a remedy for neurological complications from measles as well as following the MMR vaccine.

SULPHUR

Dr. Shepherd found *Sulphur* useful in the later stages of measles, especially if the rash did not develop fully or was too slow to clear and when recovery was sluggish overall. In homeopathy, we often use *Sulphur* when convalescence is slow or if a person has not been well since

a certain infection. Dr. Shepherd described a case of a boy whose rash had almost faded but whose skin was rough and slightly itchy. He was weak, tired and irritable and seemed to have lost his energy and appetite. After taking *Sulphur*, his energy and appetite returned quickly, and the boy bounced back within twenty-four hours.

MORBILLINUM

Morbillinum is a nosode (a remedy made from a disease product), in this case made from the secretion of the mouth and throat from a person with active measles. Dr. Shepherd used it to speed up recovery from the illness as well as to reduce the severity of symptoms and even prevent the full development of measles symptoms. It is still used today in homeoprophylaxis, which is the use of homeopathic remedies, often nosodes, to reduce the risk of the development of various infectious diseases or at least to lessen the severity and risk of complications of such diseases.

In the exposed group of children in a children's home described by Dr. Shepherd in her book, she administered *Morbillinum* 30C as a prophylactic once some of the children showed active signs of the illness. Very few children developed measles after this, and those who did had extremely mild cases. She believed the nosode helped to "wake up" the immune response without causing full-blown infection.

CONCLUSION

Practitioners successfully treated measles with homeopathic remedies in the nineteenth and early twentieth centuries, well before the development of vaccines. Doctors like Dorothy Shepherd had great success in helping children move through measles quickly and without complications, hospitalization or death. In addition, Shepherd and others used the homeopathic remedy *Morbillinum* to reduce the risk of developing full-blown measles without the possible adverse effects of conventional vaccinations.

It would behoove public health agencies to revisit the use of homeopathy and nutrition for the prophylaxis and treatment of measles, which is most often a relatively harmless, flu-like illness, but which may cause serious complications and even death in compromised children. Natural measles infection can help to develop the immune system and bring long-lasting benefits, whereas current measles vaccines are suspected to be involved in the development of autism and other serious immunological and neurological disorders, which can be lifelong and crippling to affected individuals, their families and society at large.

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From the Archives

THE GERM THEORY OF DISEASE

By Herbert Snow, MD, 1905

Most unfortunately this lame and defective theory has become the foundation of a very extensive system of quackery.

The Germ Theory of Disease, so prominent in medical literature and practice, began with the unsuccessful efforts of the chemist Pasteur to apply to human maladies—which, not being a doctor, he only knew academically—deductions drawn from the phenomena he had observed in fermentation. There has never been anything approaching scientific proof of the causal association of micro-organisms with disease; and in most instances wherein such an association has been pretended, there is abundant evidence emphatically contradicting that view. Yet most unfortunately, this lame and defective theory has become the foundation of a very extensive system of quackery, in the prosecution of which millions of capital are embarked, and no expense spared to hoodwink the public with the more credulous members of the Medical Faculty. It may then not be out of place to survey, as judicially as may be, the position in which the Germ Theory now stands; with the ill-consequences very conspicuously resulting from its premature adoption as a proven axiom of Science. Those ill results are demonstrated and lucidly set forth in categorical detail, by the recently published Minority Report—whereof Dr. George Wilson is author—of the Royal Commission on Vivisection.

The subject naturally falls into two divisions: a) the Microbe or Germ as asserted to cause febrile and infectious maladies; b) the same as the supposed source of suppuration in wounds, and of the basis of Lister's exploded "Antiseptic Theory." The former appertains to Medicine, the latter to Surgery.

I. MICROBES AS THE ASSERTED CAUSE OF FEVERS, CONSUMPTION, DIPHTHERIA, ETC.

The majority of zymotic maladies are unquestionably due to some sanitary defect, as dirt, foul air, polluted water, innutritious food, deficient light, etc.; and when the fault has been remedied, the disease is prevented or cured. But these are its gross causes. Of the subtler agencies whereby illness is produced, our ignorance is crass indeed.

Hence a natural temptation, whenever a micro-organism is found in connection with a malady, to assume that the latter is directly due to the former, and to overlook necessary links in the chain of scientific proof. The Germ Theory offers such a simple explanation of so much that is profoundly mysterious and obscure that, in spite of every difficulty, belief in it has come to be with the bulk of medical practitioners—and so with the public who place implicit confidence in "Medical Science"—an obsession overwhelming and unapproachable by reason.

The first of these difficulties is the fact that in spite of the most diligent and persevering efforts, no investigator has ever yet been able to detect any causative germ whatsoever in some of the most familiar and prevalent maladies of this zymotic class. Vaccine lymph we have always with us, and in forms peculiarly well adapted to the methods of laboratory research. More than twenty years since, the Grocer's Company offered a prize of $5,000 to the discoverer of its "germ." That prize is still open, and has never been even claimed.

No one has yet discovered any micro-organism in association with Measles, Scarlatina, Small-pox, Chicken-pox, and Mumps. One has lately been put forward as the source of Whooping cough, but proof of the statement is wanting; and the same with Pfeiffer's Influenza-bacillus. Pasteur, the Apostle of the Germ Theory, could detect no microbe (in spite of assiduous search) in Hydrophobia; not of course a zymotic malady. Of Cancer, some 400 distinct micro-organisms have been proclaimed the cause; but no one beyond the discoverer has ever accepted this discovery.

Per contra, a micro-organism has been discovered in more or less frequent association with the lesions of Diphtheria, Tuberculosis, Cholera, Bubonic Plague, Tetanus, Typhoid Fever, Spinal Meningitis, and a few more. In each instance it has been put forward as the cause; and on that assumption a serum or vaccine has been commercially exploited as cure or as preventive of the particular disease in question. Let us briefly inquire into the credentials of some of these germs; and consider how they would satisfy the requirements of genuine Science.

KOCH'S POSTULATES

But first it may be premised that germs in general are of extremely numerous varieties, and that morphologically these varieties often bear so close a resemblance to each other, that even a highly-skilled microscopist has the greatest possible difficulty in distinguishing one from another by its appearance under the microscope. Also the micro-organisms found in disease are commonly mixed and blended in almost inextricable confusion. Hence Professor Koch, of Berlin, the discoverer of the Cholera and Consumption bacilli, laid down five postulates with which any germ must comply, before it could be scientifically admitted the "vera causa" of any malady whatever. At the time Koch was practically the head of the Bacteriological world, and his dictum was unhesitatingly accepted by bacteriologists. Apart from expert opinion, it obviously appeals to commonsense.

In order that a micro-organism may be scientifically held causal, it must—

1. Always be discoverable in association with the particular disease.
2. Never occur under conditions of health, or in other disease than the one indicated.
3. Be capable of cultivation for many generations outside the body of the host.
4. Always produce the same disease when subsequently inoculated into the body of another animal.
5. Then always be found in the second animal host.

Not a solitary germ yet discovered has succeeded in fulfilling all these conditions. In fact, no single microbe put forward by bacteriologists as the cause of a disease has yet complied with more than one, and—which is a point of particular significance—that one is the third of the above.

In other words every micro-organism yet found in association with disease has utterly failed to fulfil four out of five tests which the leading bacteriologist of his day laid down as absolutely essential before it could be counted a genuine cause, or held in any sense etiological. Witness the following examples.

THE BACILLUS OF DIPHTHERIA

The microbe to which Diphtheria has been for the past seventeen years attributed and whose presence in the throat-mucus now constitutes the official and sole acknowledged test for the presence of that malady, was discovered by Messrs. Klebs and Loeffler and is called their name. They could not detect it in 25 per cent (one in four) cases of undoubted Diphtheria. See also Osler's Practice of Medicine, page 138 where Osler, practically the leader of modern Medicine, admits its frequent absence even in bad cases.

Since its discovery as above the bacillus has also been found in abundance in the throat-mucus of innumerable healthy people; and this by many independent observers. Ritter detected it in 127 perfectly healthy school children. Hewlett and Murray found it in 15 per cent of children in hospital with various maladies other than Diphtheria (*British Medical Journal*, June 15, 1901).

The organism has a very wide distribution. It has been detected microscopically in the contents of vaccine vesicles, in tuberculous and emphysematous lungs, in mucus from ordinary catarrhal sore-throat, in stomatitis, rhinitis, conjunctivitis, in eczema and other skin eruptions, in gangrene, noma, ozcena, etc.

Injected into the body of another animal the Klebs-Loeffler bacillus invariably fails to produce disease in any way resembling human Diphtheria. The horses so treated for the purpose of manufacturing Diphtheria-Antitoxin from their blood-serum show no symptoms, apart from general malaise, of that malady. (See evidence of Professor C.J. Martin, *Proc. Royal A-V*, Commission, Q. 11897.)

Even a highly-skilled microscopist has the greatest possible difficulty in distinguishing one [germ] from another by its appearance under the microscope.

The Tubercle-bacillus was discovered by Professor Koch in 1881. He endeavored to prove that it is the cause of Tubercular Consumption, but entirely failed to do so.

TUBERCULOSIS

The Tubercle-bacillus was discovered by Professor Koch in 1881. He endeavored to prove that it is the cause of Tubercular Consumption, but entirely failed to do so; all his conclusions were promptly contradicted by Professor Middendorp and others. Nevertheless, this microbe has since been elevated to the baleful potency of a malignant African fetish. It has caused unhappy consumptives to be shunned like lepers; is now dangerously threatening the milk trade, the agricultural interest, and even the general arrangements of industry at large.

The germ does not make its appearance in the sputum of consumptives until that disease has continued for several months. Dr. H.J. Loomis (*Medical Record*, July 29th, 1905), gives the average date of its detection at three and one-third months from inception, as fixed by the physical signs. Dr. Muthu's extensive experience at the Mendip Sanatorium enables him to affirm that it is not infrequently absent from the expectoration of patients with very advanced disease and "extensive mischief in the lungs" (*Pulmonary Tuberculosis and Sanatorium Treatment*, 1910).

Professor Middendorp denies that the bacillus exists in any tubercular nodules of recent formation, and prior to the onset of degenerative processes. Spina, Charrin, and Kuskow failed utterly to detect it in Acute Miliary Tuberculosis, wherein, were the causal theory of Koch genuine, it must needs be specially abundant.

A noteworthy element of fallacy in reference to the value of inferences from experiment with the Tubercle-bacillus upon the lower animals lies in the fact that most of such experiments take place with the guinea-pig. In 1868 Dr. Wilson Fox proved that it was easy to produce Tuberculosis in that animal by almost any tissue-irritation, and by inoculation with miscellaneous substances very varied in character. Eleven of thirteen guinea-pigs became tubercular through the subcutaneous injection of pneumonic lung-substance, four out of five by that of putrid muscle, others by the insertion into their tissues of silver-wire, cotton thread, and the like (Lecture Royal College Physicians, May 15th, 1868). Dr. Fox's conclusions were confirmed by Dr. Waldenburg and have never been contradicted. They appear to invalidate the bulk of the "scientific" researches including those most elaborate and prolonged investigations by the Royal Commission on Tuberculosis.

THE MICROBES OF PLAGUE, CHOLERA, TETANUS, ETC.

The Times of January 13th, 1896, quotes a Report to the Plague Commission at Agra, by Mr. Hankin, Bacteriologist for the North-West Provinces. "There was no doubt that cases of Plague occurred among human beings in which no microbes were visible at the time of death. This fact was first proved by the members of the German and Austrian Plague Commission."

The "Comma bacillus" was discovered by Koch, who proclaimed it to be the cause of Asiatic Cholera. Dr. Klein, who was about to proceed to India to investigate the origin of that disease, did not believe in Professor Koch's statement and experimentally drank a wineglass of comma bacilli in "pure culture." No effect followed; and Dr. Klein remains alive and well to this day. At Hamburg Pettenkofer and Emmerich swallowed that actual dejecta of a cholera patient with result similarly negative. Pettenkofer concluded that "the specific virus of cholera does not arise from the comma bacillus, but is evolved in the human organism."

Cunningham (quoted by Granville Bantock, *The Modern Doctrine of Bacteriology*, p. 67) met with cases of cholera free from any traces of the comma bacillus. Bantock cites one of sudden death from this source at Paris in which none could be found. The micro-organism occurs in people suffering from nothing more grave than constipation. A Government Inquiry into the Etiology of Asiatic Cholera, 1896, says: "Organisms like comma bacilli. . . can have nothing definite to do with disease. . . . It is impossible to maintain that the evacuations of a person affected with cholera contain actually or potentially the cholera poison in the shape of an organism."

Tetanus is ascribed to a microbe resident in garden soil, which gains access to wounds. That cannot be true, because such wounds among gardeners and agricultural laborers must be most common, yet they are very rarely attacked. Also, tetanus not seldom occurs without external

wound; and Dieulafoy has recorded thirty-five cases following the injection of highly sterilized serum. In India, Italy, and America, severe outbreaks of Tetanus have followed the use of Diphtheria Anti-toxin.

The bacillus typhosus, the pretended cause of typhoid fever, is found in healthy persons, and according to Major Horrocks, R.A.M.A. (*British Medical Journal*, May 6, 1911) has no specific character whatever. He finds that it is easily changed into other forms (B. Coli, B. Alcaligenes, etc.) by cultivation. It has never been found in the water, to which many virulent epidemics of typhoid have plausibly been ascribed. Dr. Thresh, the well-known Medical Officer of Health, told the jury in the Malvern Hydro case, that he had accidentally swallowed a wineglassful of the "pure culture" of virulent typhoid bacilli without the smallest ill-consequence.

On experiments involving the like conclusion, Dr. J. W. Hodge remarks, "In medical literature I find a number of recorded instances of the apparently healthy human body having been repeatedly inoculated hypodermically with pure cultures of the active bacillus typhosus, the supposed cause of typhoid fever. These fully virulent cultures have also been injected into the rectum of the human body, and applied to large abraded areas from which the cuticle had been removed. . . with no other effects that those resulting from the puncture or abrasion." He makes a similar statement about the bacillus of Anthrax; and says that so far as his knowledge extends, all such experiments with other microbes reputed pathogenic have been negative (*American Journal of Neuropathy*, February, 1911).

These remarks are specially pertinent at the present time because of the recent official order that the whole United States Army is to undergo inoculation with Anti-Typhoid serum, a remedy resting in toto on belief that the B. Typhosus is the source of Enteric fever.

It is admitted that the microbes asserted to generate Spinal Meningitis, Anthrax, Influenza, etc., cannot be detected in all the victims of these disorders by the most careful search. No pathogenic germ has ever been found in the air.

MOSQUITOES AND MALARIA

The present position of the favorite official view of a germ as the cause of Malarial fevers, and conveyed by the mosquito, may be here glanced at. On the general theory, it may be remarked that Malaria abounds where the insects are entirely, or almost entirely, absent; as in the tropical highlands generally and the elevated regions of Rhodesia (Bantock). That the fever is at its maximum when there are hardly any mosquitoes about, and at its minimum when these are most numerous. That the malady is apt to follow a chill, after long years of immunity in temperate Europe.

Secondly, we note that although the theory has been current for nearly ten years, wherever it has been acted on, it has totally failed in actual practice. Wherever operations for the destruction of the mosquito (per se) have been carried on, as at Miam Mir, for seven or eight years (*Lancet*, April, 1909), they have proved useless. The malady is as prevalent as ever, in spite of the great labor and sacrifices involved. So far as it is possible to obtain unbiased official testimony, we learn that only the gross measures of sanitation count.

II. MICROBES AND SUPPURATION—
THE OBSOLETE ANTISEPTIC THEORY

The Antiseptic System of Surgery, to the introduction of which the late Lord Lister owed his extraordinary fame, was based on the theory that certain specific micro-organisms cause suppuration in wounds; and that by destroying them before they could gain access thereto, suppuration was prevented.

Hence the invention of the Carbolic Spray, and all its accompanying cumbersome technique, which in the seventies of the last century wearied the heart of the surgeon, and not seldom killed the patient.

It was eventually discovered that no human power could possibly devitalise the millions of microbes which gain access to every wound during the briefest operation. Lord Lister had to confess at Liverpool, on September 16th, 1896, that his whole theory was erroneous, and that it was only "the grosser forms of septic mischief" which had to be reckoned with in surgery. The Carbolic Spray, and even the "Antiseptic washing and irrigation," had been authoritatively abandoned by him six years earlier, with an expression of regret for the introduction of the former. "I feel ashamed that I should ever have recommended it (the spray) for the purpose of destroying the microbes in the air."

Antiseptic surgery was then replaced by Aseptic; which being translated simply signifies careful and wholesome cleanliness—that and nothing more. Instead of striving to kill the germs, we severely let them alone, concentrating all our attention upon that cleanliness of patient, of doctors, of nurses, and of dressings, which assuredly in this matter is not merely next to godliness, but is infinitely preferable.

Lister was wrong, and frankly confessed it. Yet to the end of time should his fame continue, for he worked indeed a great miracle, which to those who, like myself, remember the days previous, would seem almost inconceivable. He actually made surgeons and dressers wash their hands and carefully cleanse their nails—a thing almost unknown before! A marvellous transformation there has been. Oh, the mal-odors of the

wounds and the wards, and the busy hands of doctors, students, and nurses at work therein, during the pre-Listerian period! Oh, the foul black nails of justly celebrated surgeons, I can remember in that not very remote epoch!

But for the germs themselves, the "pyogenic" micrococci, the streptococci and staphylococci, "et iis similia"—these bogeys were quickly found to be unentitled to the high estate conferred on them by Lister; and had it not been for medical obsession by the Germ Theory, must have fallen into utter contempt. It was proved that in all the natural mucous secretions of the body they exist in myriads. They are perfectly normal inhabitants, to all appearance perfectly innocuous, of the bronchial tubes, nose, mouth, throat, etc.

Lister admitted that his carbolic sucked them into its vortex, carried them into the operation wound in far vaster numbers than would have penetrated otherwise, and was not strong enough to kill them. Lockwood found it all but impossible to sterilize the skin of his own hands, let alone that of the patient completely; and further that on areas such as the scrotum where micro-organisms specially abound his operation wounds appeared to heal the better for their presence.

Corrosive Sublimate, the most potent killer of germs known, entirely precludes healing as every surgeon knows; the wound obstinately continues raw.

Pus is known to be frequently present without any micro-organism, and to be readily caused by various chemical agencies such as painting the skin with iodine, rubbing it with mercury or Croton oil. Of fifty agar plates prepared from pustules produced in twenty patients by the last-named, forty-five were perfectly sterile (Kreiblich of Vienna Experiments in the Production of Pus, quoted by Bantock, Op. Cit., page 161; see also *Medical Press and Circular*, June 19th, 1901).

With Lister, Lockwood practically concluded that it was only "the grosser forms of septic mischief" whereof the surgeon had to beware, and that perfect sterility is impossible in surgery. With wholesome cleanliness, drainage, and careful subsequent precautions to maintain dryness—freedom from moisture—of the parts involved in a surgical operation no suppuration takes place—whether microbes are to a certain extent excluded (they cannot be entirely so)—or whether they are allowed to swarm in by the billion. Such is my own experience in a lengthy hospital career, and it concurs I think with that of every other practical operator, peritoneal or otherwise.

I mention this last because the rules of peritoneal (abdominal) surgery differ materially in detail from those of other departments (a point apt to be overlooked), and inference from one to the other is not always made. The peritoneal membrane it was that most suffered by absorption of the poisonous carbolic acid when the spray was in vogue. Probably it was for this reason that the great Lawson Tait persistently depreciated Lister. He ascribed the invention of surgical cleanliness to Lyme. With Bantock, he abominated the spray even when its vogue was overwhelming, and experience proved the justice of their contention.

III. THE FALLACIES OF THE BACTERIOLOGIST AND THE TRICKS OF TRADE

But unfortunately both in the medical and surgical departments of the healing art, powerful vested interests had by this time (i.e., 1890, when Lister at the Berlin Congress officially discarded his "Antisepsis") arisen, and, in combination with still more powerful financial forces outside the faculty, were compelled to prop up the decaying Germ Theory by every possible method and at all hazard. Consequently, when Aseptic Surgery displaced Antiseptic, it was officially proclaimed publicly that the former was only the corollary of the latter—which it really negatived entirely. Lister was induced to ally himself with the successful new school, and to confer upon its edicts and practical prescriptions the unparalleled lustre of his world-wide reputation. At the Royal Medico-Chirurgical Society on June 20th, 1901, the antiseptic method in surgery was solemnly buried in the presence of its author, but proclamation was also made that the new Aseptic "was the outcome of the Listerian method." The proposition is ingenious; but one might as well describe the locomotive as the outcome of the stage coach.

So much for surgery. But in medicine, still greater forces were indissolubly pledged to the maintenance of the belief in special micro-organisms as the cause of specific diseases. Pasteur has invented Serum-Therapy, beginning with fictitious cures, whose validity he signally failed to prove, for Rabies and Anthrax. Millions of capital were being invested in commercial enterprises for the manufacture of sera to cure or to prevent human maladies, and sold on the credit of the Germ Theory. Hence it was impossible to suffer public belief in the evil potency of Germs—by this time thoroughly established—to be trampled out by the hard facts of Science.

So nothing was spared that could serve to prevent a perception of the actual truth. The total failure of every one of these nostrums to accomplish its ostensible object was concealed; their frequent dangerous effects disguised, and the statistics of disease manipulated towards the desired end, or often purposely falsified upon a most extensive scale. In the whole wide field of Serum-Therapy so far, not a solitary genuine success has been scored. The fact is categorically demonstrated by Dr. Wilson's

Report in the recent Blue Book. For all who can read between the lines it stands admitted to all intents and purposes, by the Majority Report of the Royal Commission on Vivisection (q.v.).

THE THERAPEUTIC FAILURE OF SERA AND VACCINES

The most striking example of non-success in a supposed remedy introduced on the faith of the Germ Theory is afforded by the Diphtheria-Antitoxin now manufactured and sold in such large quantities throughout the civilized world. As with the other Sera in the markets it is not exactly what it professes to be. To the blood-serum of the inoculated horse must necessarily be added a small quantity of some chemical preservative—carbolic acid, iodine, formaline, etc.—to prevent that rapid decomposition which would otherwise quickly ensue. Hence each hypodermic injection of such agents involves the introduction into the blood of a minute dose of a powerful, commonly poisonous drug, having special effects for good or for evil, of its own. It can excite no surprise therefore when we find that nearly all are prone to cause sudden death, with a host of minor ill-consequences often of the graver character. [Author footnote: For the many evil sequelae of the Diphtheria-Antitoxin see "The Bacteriology of Diphtheria" by Drs. Nuttali and Smith, Cambridge, 1908. For the danger of Tubercular treatment, "Serums, Vaccines, and Toxins," by Messrs. Bosanquet and Kyes, 1909. For the bad results of Serum-Therapy in numerous. . . articles, "Serum Exhibition and Serum Rashes," by Dr. James Dundas, "The Hospital," August 29, 1909. At a discussion of the Royal Society of Medicine at Brussels, reported in the "Bulletin" for Nov., 1910, numerous deaths from the injections of various sera were referred to.]

To show a surplus of cures by the Diphtheria-Antitoxin it was only necessary to introduce an absolutely erroneous mode of diagnosis, which has since completely falsified all the published statistics of treatment. Instead of the white throat-pellicle and other obvious clinical signs whereby practical doctors who knew their work were accustomed to recognize a case of Diphtheria when they saw it, rarely making a mistake, the presence or absence of the aforesaid Klebs-Loeffler bacillus became the sole test. For obvious reasons no figures of successful treatment had under such circumstances the slightest pretensions to scientific accuracy; thousands of harmless sore throats being thus swept into the net, to demonstrate the beneficial effects of the Antitoxin.

In spite of this most unwarrantable and unscientific proceeding the annual percentage of deaths from Diphtheria has considerably increased, since the "cure" was introduced (in 1894). For the ten years previous it was only 205 per million persons living. In the ten following, the deaths rose to 235 per million, i.e., in England and Wales.

It only remains to add that Diphtheria is of all contagious maladies the most easily and promptly curable by simple and innocuous remedies, well-known to the faculty: Sulphurous Acid having been found the most efficient in the writer's own hand. Two hundred and fifty-nine cases treated by other remedies without a single fatality are reported in the *Journal de Medecine Paris*, November 24th; 1894. So long ago as 1859, Markinder treated 400 cases of Diphtheria at Gainsborough with only a single death (*Medical Record*, May 27th, 1899).

Haffkine's "Vaccine" for Plague may be next considered in view of the grievous harm it has actually caused, both directly and indirectly. It is a culture of the bacillus pestis in beef-tea and came into active use under the inventor's own superintendence on the outbreak of the epidemic which occurred at Bombay in September, 1896. A plague-epidemic dies out of its own accord, if not interfered with, in an average period of eight months. This one, however, was encountered with the above "Vaccine," and has continued ever since, i.e., for fifteen to sixteen years. From Bombay it has spread over nearly the whole of India. In 1907, the official mortality return for the year amounted to 1,315,880—that was the high-water mark. From September, 1896, to the end of October, 1911, the total deaths from Plague—in this single epidemic—have amounted to 7,621,255. (See official returns.)

And the end is not yet. In 1911, to the end of the October nearly 800,000 victims perished. Recent accounts state that Haffkine's Vaccine has at length been given up as useless.

In the whole wide field of Serum-Therapy so far, not a solitary genuine success has been scored.

A very important mis-use of the Germ Theory lies in the substitution, sometimes enforced officially, of artificial and unreliable diagnostic methods for the previous reliance upon clinical signs.

With this ghastly result—from a practical application of the Germ Theory—may be contrasted the Plague-epidemic which broke out in Egypt in 1899. No inoculations were resorted to, but by isolation and commonsense measures of hygiene, the scourge was completely stamped out in six weeks (*British Medical Journal*, April 21st, 1900).

There is hardly anything to be said in favor of any one among the numerous other sera or vaccines which have been brought forward as remedial or preventive in human and lower animal disease, and are exploited commercially at a large advertisement outlay. Sir Almroth Wright (*Studies in Immunization*, page 301) affirms that Serum-Therapy in general is devoid of any rational basis.

The Royal Vivisection Commission has elicited from medical official witnesses an unqualified admission of the failure of sera or vaccine, introduced for Cholera, Consumption (Koch's Tuberculin), Pneumonia (Marmorek), Anthrax (Pasteur), Dysentery, Puerperal Fever, and Tetanus. Statistics adduced as showing the value of the Typhoid-fever inoculations were completely balanced by others indicating their inutility, and South African doctors, with practical experience of the results, emphatically state that they do far more harm than good, delaying recovery, increasing the mortality, and in no way serving to prevent the disease (*British Medical Journal*, April 20th, 1901).

DIAGNOSIS

A very important mis-use of the Germ Theory lies in the substitution, sometimes enforced officially, of artificial and unreliable diagnostic methods for the previous reliance upon clinical signs. This is in the highest degree prejudicial to medical education, tending to develop an academic race of practitioners devoid of practical acquaintance with their calling as healers of men, relying upon book-knowledge and artificial tests for disease, bigoted and narrow in an extreme degree.

The fallacy of a microscopic test founded on the presence or absence of a particular germ, for any special malady whatever, is conspicuous in every single instance already stated. No microbe can invariably be detected in cases indisputably of the malady with which its name has been associated. Every such micro-organism has been over and over again detected when there could be no suspicion of the malady it was supposed to bring. Also there is no badge whereby by a pathological microbe can be differentiated from one confessedly harmless. The former is always very closely simulated in appearance by sundry varieties or forms of the latter, and bacteriologists of the highest skill confess themselves liable to be deceived.

Thus the Klebs-Loeffler bacillus of Diphtheria cannot be morphologically distinguished, even by bacteriological experts, from Homann's bacillus, confessedly innocuous, Koch's Tubercle bacillus cannot be discriminated from the harmless Timothy-grass bacillus and the Smegma bacillus. It also closely resembles the Bacillus Typhosus of Typhoid, for which the Timothy-grass bacillus is again apt to be mistaken. The gonococcus is very like common micrococcus catarrhalis of the nasal cavity, and the diplococcus intracellularis of Weischselbaum, which is given out as causing Spinal meningitis, though Flexner himself confesses it is often absent. The Micrococcus Melitensis, the asserted cause of Malta Fever—said to be due to goats' milk, though it prevails where goats are not, and in people who have never drunk their milk—is admitted to bear a highly suspicious resemblance to ordinary fat globules. And so on throughout the whole list. [Author footnote: Bacilli indistinguishable in size, form, and coloration by staining media from the tubercle-bacillus of Koch were found by Lydia Rabinowitsch (entrusted by Koch with the investigation) in every sample of butter purchased in Berlin and Philadelphia. They produced tuberculosis when injected into the guinea-pig. The only difference stated was that growth in cultures was quicker and more luxuriant. The fact is significant in reference to impending legislation on the milk traffic.]

It may be noted that whenever a so-called "pathogenic" germ is closely mimicked in appearance by others against which no charge of morbific "lese-majeste" has been brought, and which are assumed to be harmless, the bacteriologist applies the epitheth "pseudo" to the latter. Thus we read of a "pseudo" Diphtheria-bacillus,

a "pseudo" Typhoid-bacillus, and I know not how many more. The fact is significant as well as frequent; at once indicating the unreliability of current bacteriological tests.

Every practical surgeon or physician who himself works with the microscope—I fear there are not too many such—will admit the extreme danger of implicit reliance upon almost any microscopic test in the diagnosis of disease. Too many fallacies in every direction have to be reckoned with. I can personally testify to the numerous perfectly needless operations for supposed Cancer which have been performed in past years upon organs perfectly free from that fell disease, through the erroneous interpretation of microscopic indications. And in these last, resort to high powers of the microscope, such as used in Bacteriology, and which must obviously vastly enhance the sources of error, is rarely needed.

THE TRUE POSITION OF THE MICROBE WITH RESPECT TO DISEASE—CONCLUSIONS

The Lancet of March 20th, 1909, in a powerful editorial confesses the inadequacy of the Germ Theory, and practically throws it overboard as a scientific explanation of morbid phenomena. It says: "It is not at all rare to fail to find the causal organism in an individual case of the disease. . . . Many organisms which are considered causal are frequently to be found in healthy persons. The organisms of enteric-fever, of cholera, and of diphtheria may be cited as examples. When a 'causal organism' is injected into an animal, often it happens that it gives rise to a disease bearing no resemblance to the original malady."

No scientist has yet ascertained with precision what part in morbid phenomena germs really play. The most plausible view is that advanced by Dr. Granville Bantock in his admirable resume of the subject, to which, in compiling this article I have been greatly indebted (*The Modern Doctrine of Bacteriology*, 1902); that they simply act as scavengers, disintegrating the dead or diseased tissues into their component elements. We only know for certain that their presence in any given malady is by no means invariable; that in numerous zymotic diseases many years of assiduous research have failed to detect a solitary trace of any germs whose absence must therefore be inferred; that such as have been found cannot be causal, and can never be made to reproduce the special disease, when inoculated into animals, apart from the "virus" associated inseparably with them.

The editor of *The Lancet* states in the article quoted above that "in many instances"—for which we should read "never"—"the causal organism is not capable by itself of inducing the disease, and a 'tertium quid' must be assumed," even in the relatively few maladies which bacteriology has plausibly associated with a special germ. There is always some unknown quantity beside this, the microbe per se is not enough.

That is the limit of our positive knowledge, which at present can deal with nothing beyond gross causes. We see the zymotic fevers always engendered by some obvious septic condition, or else by some conspicuous breach of hygienic law. We succeed in preventing them by sanitation, and by careful heed to the laws of nature. In what element the contagion which most of them exhibit resides we are absolutely ignorant; nor do we know anything in minute detail of their first origin. But however fascinating the hypothesis that they somehow are caused by the infinitely small organisms which swarm everywhere around, we cannot legitimately avail ourselves of it, for the simple reason that science cannot show any even plausible foundation for it, in ascertained facts.

Experimentation in the laboratory and elsewhere with so-called "pure cultures" of microorganisms, casts no light whatever upon their real nature and functions. They are so infinitely small—many billions, or even trillions, to the cubic inch—that it is impossible ever to regard them as perfectly divested of the environment they have carried with them from the blood, or spinal fluid, or diseased tissues whence they were originally taken. And even with that the inoculations never succeed in reproducing the original disease—the inoculated animal may become ill; but it invariably fails to afford convincing or even plausible proof that it suffers from Diphtheria, or Malta Fever, or Typhoid, or whatever the special fever in question may be.

Dr. Herbert Lumley Snow (1847–1930) was a well-known London surgeon. After working at other hospitals, he was appointed in 1877 to the world's first hospital for cancer patients—the Cancer Hospital in Brompton, London (later renamed the Royal Marsden Hospital)—where he worked until his retirement in 1906. Wikipedia credits him as a "germ theory denialist" and "anti-vaccinationist" as well as an opponent of circumcision and vivisection.

Wise Traditions Podcast Interview

INTERVIEW WITH KELLY RYERSON
THE "GLYPHOSATE GIRL"

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: Bayer is working on passing legislation in various states to protect themselves from liability when customers want to sue them for poisoning them. Our guest is Kelly Ryerson, known as the "glyphosate girl." She is focused on defending us from one of the most toxic carcinogenic ingredients that we may ever encounter, and it is routinely sprayed on our lawns and crops. How is it that the manufacturers of glyphosate are looking for some kind of liability shield similar to what pharmaceutical companies have for vaccines?

KELLY RYERSON: It's shocking. Hardly anyone knows that it's happening, so I'm so glad you want to talk about it. This is a situation that's been coming for several years. Bayer manufactures glyphosate, which is the active ingredient in Roundup—the most widely used pesticide of all time. There are around 177,000 outstanding lawsuits, and they keep coming because it's been connected with non-Hodgkin's lymphoma. It's a huge problem for them because Bayer's stock price has crashed. They are having major financial difficulties because of glyphosate litigation. They stand to go bankrupt. We also have a situation with paraquat, which is manufactured by ChemChina, a government-owned chemical company. It is a pesticide that's connected to Parkinson's disease.

HLG: I interviewed someone who said she got sick because she was walking barefoot in China, and she got paraquat in her system.

KR: This is crazy because they banned paraquat in China but it wasn't all that long ago. It could have happened before they banned it.

HLG: I know that she absorbed it through her skin. She is the author of *For the Love of Soil*. She asked, "Why am I so sick?" She thought, "Isn't it interesting? My life's mission is to make the soil healthy so we'll be healthier, and yet I got sick from something that we were spraying all over the place." How does paraquat enter into this story?

KR: ChemChina is one of the major foreign manufacturers of pesticides. They will stand to benefit from this liability shield because their paraquat lawsuits are exploding throughout the United States. China does not allow paraquat to be sprayed in China, but they want to be sure they can keep spraying it here and making us sick with Parkinson's, with no liability. In fact, sixteen thousand different chemicals will fall under this liability shield, but it is primarily driven by glyphosate litigation and the power that Bayer has—Bayer, which bought Monsanto in 2018.

Our entire agriculture system is effectively built upon Bayer's products, so it gets even more complicated. They're asking for a liability shield because they are claiming that American agriculture can't continue if we still have this liability issue.

HLG: Do the judges and the legislators who might pass this legislation believe this argument?

KR: What's shocking is they tried to pass it first in the Farm Bill and a different spending bill at the federal level, to make it apply for all of the United States. It did not get through because we didn't have a Farm Bill. They'll try to slide it in again. Every year, we think there should be a Farm Bill, and it's delayed by two years. It hasn't passed. This is a bipartisan push by certain bought-out legislators. They're clearly being bribed in some way to come to bat for Bayer in the Farm Bill. Overall, the sentiment was that Democrats weren't going to want the

liability shield included, but they were willing to trade more SNAP dollars for potentially having a liability shield.

HLG: These are the wheelings and dealings that a lot of us aren't aware of because they happen behind closed doors.

KR: That's exactly it. They haven't passed it at a federal level yet. Meanwhile, Bayer's stock price keeps going down. There's a new CEO who is saying, "Something needs to change right now." This could all go away by putting "It has been shown by IARC to cause cancer" on the side of the glyphosate bottle. They would no longer be sued because they would've warned the public, but Bayer would rather withdraw their pesticides entirely than put that cancer label on the product. And since they didn't get their liability shield federally, they are going state by state to twenty-one different states and trying to pass it at the state level.

HLG: How's that going?

KR: Fortunately, we have gotten some passionate people, a lot of people from the MAHA movement, who are aware of what happened with the vaccine liability shield. They have hopped on and they're making phone calls. We got it defeated in Oklahoma, Tennessee, Montana, I believe, Wyoming, and Iowa. However, this is on the desk of two governors, the governor of Georgia, Governor Kemp, and the governor of North Dakota, Governor Armstrong. Both have an opportunity to veto this bill that has already passed through their state legislatures.

HLG: That's so scary. Did you have your people on the ground in those states?

KR: North Dakota is hard because there aren't that many people in the state. People from out of state have been calling a lot. In Georgia, there are a lot of very passionate people. The problem is that Governor Kemp ran on the idea that he wants to decrease mass tort litigation so that lawyers stop getting rich from these kinds of lawsuits. That's a problem because with these big glyphosate lawsuits, tons of lawyers have piled on to try to get their share. It's a conflict there. I don't know what he's going to do. If anyone knows anyone who knows Governor Kemp, tell me because I've been talking to family friends of the Kemps trying to tell him, "You don't realize this is not a pro-farmer bill. That's what they're saying it is."

HLG: How do they frame it that way? What are some of the arguments they are using?

KR: They have billboards up. They have radio ads, in places where most of the farmers listen, and TV ads. They're saying, "We are here to protect the food supply. You need to have these chemicals. Our farmers need these chemicals in order to feed the world," the same old argument that's always made. "If you believe in farmers, then you should support this bill." Meanwhile, I'm thinking of all the farmers I know who have cancer, Parkinson's, or there's poor Gabe Brown with ALS. It is awful. Will Harris has joined us in protest. He is a famous farmer of White Oak Pastures in Georgia. It's wonderful because he's willing to speak out about this. And the more cotton growers who come out and say, "This is not a pro-farmer bill," the better. If your child gets sick with cancer, if you become infertile, if you suffer from any of the diseases connected to glyphosate, you will have no recourse to sue the company for damages if they have a total liability shield.

If you suffer from any of the diseases connected to glyphosate, you will have no recourse to sue the company for damages if they have a total liability shield.

HLG: You said Georgia and North Dakota have it nearly passed, but are there others on the horizon, too?

KR: There are. Florida is threatened. Fortunately, with Florida, the activists are maybe the most active in this country. When I was asking for volunteers, the list filled up immediately. It was fantastic. I can't imagine it passing there. The liability shield has also been proposed in Texas, Indiana and Illinois, but I haven't seen it advance there yet. There's a whole team that's watching to see when those bills are introduced so that people can act.

HLG: Why should people become active against these bills? What if I were to say, "It's just a

farming thing. It doesn't have much to do with me. Why is glyphosate so bad anyway?" What would you say to that?

KR: What's interesting is that Bayer has made this conversation about farming. It's so much more than that. For example, in California, there is a pediatric cancer pocket in an area where glyphosate has been sprayed. This was in a school park. Again, if your child gets sick with cancer, develops infertility, or suffers any of the things that are connected to glyphosate, then you will have no recourse because they will have a total liability shield. Not only that, it'll be the same thing as it was with the vaccine manufacturers. They have no responsibility. They can make this product more toxic if they want to because they know that there's no cap to stopping the damage.

HLG: They think, "We could keep going because no one's going to stop us. No one's going to sue us." I understand that glyphosate or the weed killer, Roundup, is used more frequently on lawns than on farms. In other words, in terms of quantity, it's used most commonly on lawns.

KR: Actually, the vast majority is agriculture. Ten percent is on parks, lawns and schools. We're affected by the food we eat but when you think about the actual dermal contact, which is how a lot of these people get cancer, and you see kids walking around barefoot or touching things, and you know it's going right through their skin, it's so upsetting. Dog and cat lymphoma is also through the roof.

HLG: That's true. I wonder why our pets are getting cancer.

KR: Many vets think it's because the dogs and cats are walking on the sidewalk and ground where the glyphosate has been sprayed. They absorb it through their paws. With absorption through the skin, those animals became very sick with cancer in the studies.

HLG: Even if you're not walking in the soil or even if you're not a farmer, when we eat wheat that's been sprayed with glyphosate to help desiccate it, people are getting a lot of glyphosate in their system. I understand that when you do a urine analysis people find glyphosate in the urine.

KR: People eating fully organic have less glyphosate in their urine, but they still have some. You can do a urine test through HRI Labs where we have Dr. John Fagan, a brilliant toxicologist. You can go to the website and send in your sample, and he can tell you where your levels are.

THE WISE TRADITIONS PODCAST HISTORY IN PICTURES

This was our original podcast "artwork", known as a favicon. Obviously well-nourished in utero, the boy's face shows optimal genetic expression.

Kim Schuette, a former board member, was one of our earliest podcast guests. She was on episode #4, called "Gentle Detox.".

In her travels, our host and producer, Hilda Labrada Gore has connected with some of our guests including midwife Rosita Colta in Ecuador and oyster expert Stephen Kavanagh in Ireland.

Practically since its inception, the Wise Traditions podcast ranks regularly in the top 150 of health & fitness podcasts on Apple podcast charts.

You can eat carefully over time, and then you send in a second sample. What's shocking is that during my investigation, I started wondering, because glyphosate is everywhere, would we find it in semen, because I'd seen a study showing that it kills sperm. I'd been concerned about the 50 percent decrease in sperm counts, so I sent in three different semen samples from three different men. All three came back positive for glyphosate in the semen. We know that it kills sperm. I dug further and talked to some researchers. They said, "It's been shown to cross the blood-testis barrier." I told Bobby Kennedy about this so he's aware of the situation. I went to the EPA last September 2024 because they had made a fraudulent claim that there's no endocrine disruption from glyphosate exposure. They based this claim fully on industry research. Glyphosate is connected with miscarriages, a decrease in estrogen, a decrease in testosterone and semen issues.

We have such a fertility crisis in this country. It's so shocking that this continues. I know that they know this at Monsanto because some of the internal documents we're talking about are connected to women's fertility. Think of the heartbreak of not being able to have a child. Many of my friends have suffered with that. Remember that if glyphosate's liability shield gets passed in certain states, it will immediately halt lawsuits.

HLG: Going back to where we might come in contact with glyphosate, it's in the soil and our food. I've heard it's also in the air. Is that right?

KR: It is in the air, particularly if you're in an area that's been sprayed. It also ends up in the rain and in our water supply. A lot of municipalities don't even test for it. You're also exposed from any cotton products that are not organic. Things like tampons, pads, and diapers can have glyphosate in them.

HLG: Tell me what motivated you to get involved in this issue about glyphosate and this possible liability shield.

KR: I became interested because I had an autoimmune-like condition that was not diagnosable. I just knew that I felt horrible. I was layered with medications to try to help my many symptoms. I finally started turning a corner when I gave up gluten and started eating clean. I did a deep dive into gluten sensitivity and why it was increasing. I went to a conference at Columbia University where they were talking about this increased incidence of gluten sensitivity. They said, "We don't even know if it's gluten. We think it might be something else." I went up and asked the question, "Could it be something that's on the farm?" They said no. Someone from General Mills found me and said, "You should check it out because Roundup is sprayed on our oats, our wheat and all these grains right before harvest."

HLG: Why would that person tell you that?

KR: He was a whistleblower. I wondered what he was talking about? Roundup? The kind they sell at Home Depot? We're eating it? Around that time, the cancer litigation involving Lee Johnson, the school landscaper, was starting in San Francisco, where I live. I went up to protest Monsanto. I ended up finding no protestors and no journalists. I walked right into the courtroom and sat down with Bobby Kennedy, who was the attorney suing. I then realized no one was going to be covering the day-to-day trial, so I quit my job at the time and named myself Glyphosate Girl. I tried to stay anonymous and wrote every day all these horrible things that the EPA and Monsanto were doing. I knew these things were never going to make it to mainstream media.

Lee Johnson was a pesticide applicator for schools. He had a few accidents where the backpack sprayer had a leak. He washed it off but he very rapidly developed a severe, awful case of non-Hodgkin's lymphoma.

HLG: When he did that spraying, did he have to wear almost a hazmat suit?

KR: Yes. He had one, but the glyphosate goes right through it. Even though he washed it off quickly, it was too late. He tried to call Monsanto during that time to talk to their doctor asking, "I see some evidence that it might be connected to my cancer. What do you think?" They didn't get back to him, and then they saw him in court.

HLG: If it gets passed in certain states, will this liability shield stop these lawsuits?

KR: It will stop them immediately if these are passed. There'll be no more cancer lawsuits. Anyone's opportunity to get any kind of recourse will be gone.

HLG: I know you don't have a crystal ball, but what do you expect to happen? Do you think Bayer is going to keep pushing for this liability shield, even in the states where it's been defeated?

KR: It's interesting because about forty Congressmen wrote a letter to Kennedy, Brooke Rollins (head of the USDA) and Lee Zeldin (head of the EPA) begging them not to listen to any

of the activists and their "shoddy science" when it comes to pesticides. They claimed that the activists will present shoddy science and it will lead to horrible health in the United States. I see this as helpful because now we have the list of who's been bought off by Bayer. This is all tied to the fact that they're losing these liability shield efforts in some states. They're wondering what they are going to do now that they have to come back and get Congress to pressure our regulators. They do not have the same grip on this administration. Bayer does not have the same grip on Kennedy, and I don't think on either of the other two. They're freaking out. The CEO came out and said that they may be pulling glyphosate from the United States.

I founded a group called American Regeneration. We're working on getting different policies passed in the government. We were doing this brainstorming exercise, thinking that if glyphosate is pulled, this will be mayhem for agribusiness because all the GMO seeds are connected to it. It's a brilliant system that Monsanto developed. They are called Roundup-Ready GMOs. Most of the GMOs that we grow in this country are resistant to the effects of Roundup and glyphosate. You can spray a field, and the crops keep growing, and the weeds around the crops will die because they are not resistant to glyphosate. This is true for our corn, soy and cotton. It is going to be a huge thing not to have glyphosate, and they know that. We were going through the mind exercise.

Let's say they did pull Roundup because Bayer doesn't want to go bankrupt. Then what? Are we going to use biologicals for our soil? How do we rapidly start regenerating? A lot of the replacement pesticides are much more expensive than glyphosate, so it would be cost-prohibitive. It's a fascinating thing to watch.

HLG: My concern is that it will be replaced with something that's even more damaging, but we don't know it yet.

KR: That could be true. What happened is that they pulled glyphosate from the Roundup product that you buy at Home Depot because most of these lawsuits are from home users. They pulled glyphosate, but now the new Roundup product is forty times more toxic than what it was with glyphosate. Instead, they put in diquat which is a more toxic pesticide than glyphosate.

HLG: What are they thinking? They're looking for a loophole to keep those products on the shelves.

KR: Most people don't even know they've replaced the chemical. It's the same bottle, they changed only one of the ingredients that's listed.

HLG: These people applying it to their lawns at home certainly are not doing what Lee did. They're not putting on a hazmat suit. They're not protecting themselves.

KR: It is quite stressful for people to assess what they are doing in their own yard, in their own life and in their own diet. When they plant their spring gardens, you see the wind blowing and people out in shorts. When I see this, I go over and warn them. I'm the crazy neighbor. They don't want to hear what I am saying.

HLG: This reminds me of a big scandal some years ago about BPA, a certain chemical in plastic that people were saying was an endocrine disruptor. It's been replaced by BPF and BPS, which are nearly identical in how they affect our hormones.

KR: The herbicide that is the second most used is called atrazine. The facts about atrazine are more disturbing than those for glyphosate. It's banned everywhere else. We still spray it. It's in drinking water. Have you ever heard of the frogs changing sex? Tyrone Hayes, a scientist at Berkeley, found it to be severely endocrine-disrupting. That is why Europe banned it. It was our number one most-used pesticide until glyphosate came along.

HLG: Speaking of Europe, I've heard gluten-sensitive people say many times, "I went to Italy. I ate pasta and bread to my heart's content. I was fine." Do you think it's the glyphosate factor?

KR: Glyphosate is part of it. They are used much less frequent as pre-harvest desiccators in Europe. They are legally allowed to do it, but a lot of farmers don't. When you let the wheat naturally dry on the field as it should, it has time to become less inflammatory.

HLG: We always think that we can improve on Mother Nature and make things more efficient and cost-effective. We want to improve on Mother Nature. Let's speed up this desiccation process. But in the process, we're messing things up.

KR: We're messing things up so much! The pre-harvest desiccation only started in 2005. When you look at the increase in chronic disease—not just me but many scientists—the conclusion is that they are connected. Understand also that glyphosate is an antibiotic. It kills beneficial gut bacteria while allowing detrimental bacteria to proliferate. It's a weird antibiotic that only hits

the good stuff. At least eighty percent of our dietary exposure to glyphosate comes from pre-harvest desiccation. You think that would be so easy. All you need to do is get swathers [harvesting machines] back into the hands of the farmers, do it like you did in 2005, and restore our health.

HLG: We're together today because we were at the big press event at HHS, where Kennedy was saying they are going to be phasing out petroleum-based dyes in our food system. And he wanted to see less glyphosate.

KR: My recommendation to them was, can we at least get pre-harvest desiccation out? Is this something that everyone could agree with? There might be an appetite for it, which is great, because it's not touching the GMO situation that's so entrenched in subsidies.

HLG: I'm the only one in my neighborhood who pulls weeds. I have a big sign that says "No Pesticides." My kids are mortified. It's like a big scene. But there are some people who love it.

KR: I'm doing my own little mini regenerative situation. I tolerate weeds. But I have lost friends over this issue. It's a stressful thing for people to feel judged when they know what I do. I hate that because I don't judge. It makes people assess what they're doing in their own yard, their own life, or think about what they're eating. It makes people stressed.

HLG: I'm sure the reader can relate. I know I can. By making a simple food choice, suddenly, the people around me feel threatened, like I'm giving them a hard time. It is not about them at all. It is for myself and for staying healthy. That makes me feel bad because you never want to shame other people. You just want to make the healthiest choice you can. You, Kelly, are trying to help other people be empowered with knowledge, which I love.

KR: That's what I'm trying to do. I can speak from my own experience that cleaning up my diet and going gluten-free was completely life-changing. I was probably on an early-death path, I was so sick. I see people coming down with these severe autoimmune conditions and it is hard to watch. I can see what they're putting in their body and know what's happening.

HLG: Have you worked at all with Zen Honeycutt? I know she's done some investigation about the levels of glyphosate even in our school lunches.

KR: In fact, we have spent a lot of time in DC together, going from office to office and talking about glyphosate, fertility, cancer and the toxicity of our food supply. It's interesting. We do feel like we have some takers when we convey that information. When JD Vance was still a senator, his chief of staff was my favorite. We met with him, and he was a sponge. He was writing every last detail and shaking his head like, "This is terrible. The senator's going to be very interested in this." When I see JD Vance, I realize, "I know he knows," and it makes me relieved.

HLG: As we wrap up, I want to ask you the question I love to pose at the end. If the readers could only do one thing to improve their health, it may be related to avoiding glyphosate or not, what would you recommend that they do?

KR: The number one thing you can do is get a water filter. I tell as many people as I can. "I have an under-the-counter water filter from Clearly Filtered. It takes out atrazine, glyphosate and all these things that a lot of these water filters don't even test for. I had to look far and wide, and I finally found this one. It was interesting because I filled my dogs' water bowl with this new water. I have never seen them drink so much! I thought, "You guys can tell this is super clean water."

This was Wise Tradtions Podcast #526 (May 12, 2025)

Tradiciones Sabias

WISE TRADITIONS PODCAST IN SPANISH

It is with great enthusiasm that we share that last week the podcast just reached 85,000 downloads and today we published Episode #100.

All Thumbs Book Reviews

A Year in an Off-Grid Kitchen: Homestead Kitchen Skills and Real Food Recipes for Resilient Health
By Kate Downham

This beautiful and informative book is like a match made in heaven of Sally Fallon's *Nourishing Traditions* cookbook and Jessica Prentice's *Full Moon Feast*, with a twist of survival handbook. Woven amid all the clear and practical recipes to nourish your body is homage to nature's beauty, which will nourish your soul. Each organized-by-season section begins with a stunning full-page photo and lyrical writing that effectively transports you into that time of year. I can just imagine her Australian accent as I read from the introduction to Early Spring:

"There's a lightness stirring the air. The ice-cold winds still chill us, but on the ground, life is stirring as the sun grows higher in the sky each day… In the wild and in the garden, leaves are growing. Lush, green, nutrient-dense growth is found everywhere… The hens respond to the lengthening days… And eggs taste at their best at this time of year—rich, creamy, full of flavour, and so fresh. The nourishment from these eggs is needed for the next few months of garden work, and eating these eggs I can almost feel the goodness flowing through me, energising me for the next tasks at hand and giving us hope that we can do this."

Throughout this book, Downham invites you into her simple existence in her simply beautiful world. Built on a foundation of permaculture principles, she has created an autonomous life that is fueled by grass-fed animal fat and dedicated to reliance on nutrient-dense foods. Her seasonally appropriate eating suggestions entice us into this way of living with her "resilient recipes" that are simple to follow, use local and staple foods, nourish good health and energy, and delight the taste buds.

Anyone attempting to follow WAPF lifestyle recommendations will find something valuable. "Ways to Make Real Foods Work in Real Life" includes topics like saving time, avoiding burnout, saving money, and a thought-provoking perspective on meal planning. Throughout, other recipes and suggestions offer ways to use up leftovers, tips for making apple cider or vinegar from apple cores, and everything you need to know about perpetual broth.

Her passion for independent living will appeal not only to those interested in an off-grid lifestyle, but anyone who wants to be prepared for emergency situations and inevitable periodic power outages. Practical and instructive sections on "Fridge-Free Living" and "Cooking on a Wood Stove" invite us into her world that is refreshingly free of an over-consumption mindset. She says, "It's a wonderful feeling to work with the patterns of nature and live in a seasonal way… When we expect nature to be at our beck and call, and for technology to serve all our whims, something special is lost." There's even a section on foraging that focuses on the most common and easiest to identify edible and nutritious weeds and seaweeds. This includes pictures, harvesting and drying tips, and recipes.

Her passion for independent living will appeal not only to those interested in an off-grid lifestyle, but anyone who wants to be prepared for emergency situations and inevitable periodic power outages.

For those with access to local farm food, this book is a treasure. Even as a twenty-five year veteran of making cheese from my own Jersey's milk, the section on cheese making and using fresh dairy had useful information for me. Downham covers making yogurt, kefir and simple cheeses; traditional canning and preserving and lacto-fermentation. And while this may not be for everyone, the Late Autumn section gives a step-by-step process of butchering a pig!

The one downside to this book is that the sweetener often used is honey. This is understandable because it's a great local option. However, as a beekeeper and student of Ayurvedic medicine, I would not endorse destroying honey's precious enzymes with heating. That said, this beautiful cookbook and practical homesteading guide gets a big thumbs up!

Review by Kathy Frisch

All Thumbs Book Reviews

Unshrunk: A Story of Psychiatric Treatment Resistance
By Laura Delano
Penguin Random House

A young girl with anger outbursts and unexpected shifts in behavior is taken to see a psychiatrist at age fourteen. In *Unshrunk*, author Laura Delano tells what happens next, taking readers on the harrowing roller-coaster ride of her own life. Honestly, it may be more apt to dub it a haunted house ride. She recounts the frightful experience she had over the course of the next thirteen years, bouncing from practitioner to practitioner, medication to medication and institution to institution in an endeavor to regain her sanity. I nervously wondered how she would fare in each chapter. Would she be able to return to school? Improve her insomnia? Find stability? Tame her disordered eating?

Trigger warning: this book depicts (rather graphically) self-harm, suicidal ideation and discomfiting sexual liaisons. I was tempted to set the book aside as it got darker, exploring the depths of mental illness progression. But I kept reading, and I'm glad I did. Delano has done her research, so while she gives us a window on the thought processes of a mental health patient, she also reveals important context and history on various medications and "treatments."

"Treatments" is in quotes because Delano questions all of modern psychiatry's conventional approaches. She cites University College London professor Joanna Moncrieff, who suggests that psychiatry is built on a faulty model. "If you are told that Prozac is an antidepressant you naturally might assume it 'works' by targeting and acting against underlying 'symptoms' of an 'illness' called 'depression.' The problem is that in the case of psychiatric diagnoses, there are no actual underlying pathologies. 'Psychiatry adopted the disease-centered model of drug action because it bolstered the idea that psychiatric disorders were the same as other medical conditions, and could be managed and treated in the same sort of way. The model was never tested.'"

Nonetheless, medications remain the go-to treatment for mental imbalances. Here's a sample of the prescriptions Delano went through during her first six years of "compliant psychiatric treatment": Depakote, Seroquel, Prozac, Effexor, Provigil, Ambien, Lamictal, Klonopin and many more. She also explored (or should I say endured) inpatient and outpatient therapies and countless support groups. All with no improvement. Throughout the varied dosages, medications and therapy practices, Delano was continually riddled with self-doubt and hopelessness. Despite compliance with treatments and protocols, she couldn't hold down a job. She was dependent on her family for financial support. She had no meaningful friendships.

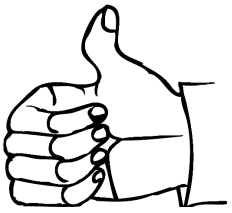
One psychiatrist finally helped her understand why her mental illness had progressed. Like many diagnosed with a mental disorder, Delano had gone through a "prescription cascade," with ever-worsening symptoms. He told her that patients who do not improve over time with meds are known as "treatment resistant." It's medical shorthand to suggest that it's not the medication that it is the problem, it's the patient.

Delano is not the only one who has found no lasting help from meds. As of 2020, she recounts, nearly thirty-nine million American adults were taking an antidepressant. The 50 percent who do improve still have "significant residual symptoms" that affect function. Only 20 to 40 percent of patients first treated for a major depressive episode "are expected to achieve a relatively asymptomatic state."

In 1997—the year Delano's parents were given prescriptions for their fourteen-year-old daughter—the first two drugs prescribed (Depakote and Prozac) had not even been approved by the FDA for psychiatric use in children. Ap-

Delano reveals important context and history on various medications and "treatments."

All Thumbs Book Reviews



The Ultimate Guide to Methylene Blue
By Mark Sloan
EndAllDisease Publishing

Applying one of the Hippocratic oaths ("It's far more important to know what person the disease has than what disease the person has"), in a book that could revolutionize how chronic medical complications are diagnosed and managed, Mark Sloan asserts that the sole disease is malfunctioning cells. The prolific author—including a book in which he castigates the profiteering cancer industry for much of the iatrogenesis associated with the frequently terminal condition that he contends is largely preventable—focuses on a single substance that has extremely significant therapeutic value for a myriad of applications. *The Ultimate Guide to Methylene Blue* presents persuasive evidence for the importance of supplanting the current domination of Western medicine's anti-curative symptomatic care with a primary preventive approach via metabolic medicine. Supporting Sloan's well-researched arguments is a listing of more than 200 references.

My first encounter with the substance—used primarily as a dye in the textile industry—was its surreptitious use in a fraternity house, where a small amount was sneaked into the food or drink of pledges, who would panic for fear that they were afflicted with a rare sickness once their urine turned blue (a harmless side effect). Unbeknownst to both the startled freshmen and the upperclassmen who instigated the practical joke, was that they had in their midst a product that, if used for the various purposes suggested by Sloan, likely would have safeguarded their health for much of their lives.

Much of the justification for the genetic hypothesis of disease is based on the established relationship, (although somewhat weak) between kinship and risk factors.

The author posits that genetic mutations should be considered symptoms of disease rather than causes; throughout the book, he explains how various environmental toxins, drugs, radiation and light pollution, the typically nutrient-depleted and contaminated American diet, and other harmful habits and exposures lead to mutations and other disease-promoting aberrant cellular functioning. We are the totality of the trillions of cells and bacteria in our bodies and shouldn't be medically managed by a fragmented care as if our tissues and organs were disconnected from one another.

In one of his chapters, Sloan documents the costly and ineffective preference of modern medicine to ascribe many illnesses to genetic defects and abnormalities. While many conditions are congenital, the vast majority of diseases and disorders are environmental and caused by personal habits, many of which are inadvertent. Much of the justification for the genetic hypothesis of disease is based on the established relationship, (although somewhat weak) between kinship and risk factors. The less accepted but much more likely explanation is that family members tend to adopt habits, consume diets and have lifestyles closer to themselves than they do to strangers.

parently, in the psychiatric context, it is not uncommon for such drugs to be prescribed to children for "off-label" use.

Over time (and following a suicide attempt), Delano began to ask important questions. She had been classified as "treatment resistant"; maybe it was time to resist treatment. What if it was the treatment itself that was making her sick? She had taken antipsychotics, antidepressants, mood stabilizers, antianxiety drugs and insomnia meds. Along the way, she had acquired a number of physical issues (likely drug "side effects"), including Hashimoto's disease (a thyroid condition), irritable bowel syndrome and loss of libido. She eventually succeeded in weaning herself off of all of the meds and unhelpful therapies. She realized that discomfort is not necessarily something to be fixed, numbed or run away from. She attended Alcoholics Anonymous groups and began to practice mindfulness. "Just sit with yourself, Laura. Just be here, with all of it."

Read this book only if you are willing to sit, as well, with uncomfortable emotions, situations and the utter messiness and confusion that make up our lives. This book challenged me to do just that, and I give it a thumbs up.

Review by Hilda Labrada Gore

All Thumbs Book Reviews

Even though methylene blue was determined to be an efficacious and safe substance in reversing disease more than a century ago, it somehow escaped the interest of holistic practitioners, much less those who are exclusively allopathic. As long ago as 1891, it was established to be an effective anti-malaria agent. Only a possible lack of supply or the ability to be administered to large populations can explain why the infestation of malaria and other parasites continue to take the lives of millions worldwide. That process is augmented when red light therapy (not elaborated in the book) is used synergistically. A powerful detoxifier, the dye should be considered among the initial treatments of infestations and infections.

The common denominator that accounts for methylene blue's role in addressing a large number of disparate conditions—the implicit thesis of the book—is that it restores dysfunctional mitochondria (the energy source of all cells) to equilibrium. When the mitochondria cannot utilize oxygen properly, a cascade of cellular impairments follow, which can occasionally cause mutations. More specifically, the electron transport system within mitochondria is disrupted, causing both oxygen deprivation and the proliferation of free radicals within the cells. Methylene blue counteracts that scenario because it facilitates the bypassing of the blocked flow of electrons that create free-radical activity and its attendant damage to cells.

A strong antioxidant (which destroys free radicals by neutralizing rogue electrons), methylene blue promotes oxidative phosphorylation or adenosine triphosphate, which is impaired in those with fibromyalgia and other conditions characterized by extreme fatigue. It serves to overcome fatigue by oxidizing the glucose within cells into the vasodilator CO_2, a process inhibited by nitric oxide and lactic acid.

Another explanation for this important property of methylene blue is that it restores the oxygen-carrying capacity of hemoglobin when hemoglobin has oxidized to form methemoglobin, which leads to tissue hypoxia and, as a result, the release of stress hormones. That inflammatory response can lead to vasoconstriction and scarring of arteries. One of the most toxic free radicals—peroxynitrite—is formed when nitric acid reacts with oxygen. By converting methemoglobin back to hemoglobin, methylene blue overcomes the consequences of hypoxia. Interestingly, without the use of lab tests, methylene blue can be used to crudely estimate whether someone is experiencing tissue hypoxia. Sloan indicates that if a drop of the dye on skin has its blue tint disappear before six

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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.

hours, the person likely is oxygen deprived.

Those individuals are experiencing a lack of ATP (an enzyme present in all cells, especially those comprising muscles), resulting in a de-energized state that, via its capacity to restore proper mitochondria function, can be remedied by the administration of methylene blue. What's far more consequential than the systems of fatigue and malaise is the oft-neglected signal that the tired individual is developing or is at risk for one or more serious illnesses.

Few will disagree that the introduction of more than one hundred thousand chemicals—many of them carcinogenic—into our environment since World War II has led to the fertile ground for millions of instances of cancer. One of Sloan's most valuable contributions is his novel approach to overcome this medical scourge. In contrast to the typical declaration of war on cancer cells, assaulting them with radiation and/or drugs—both of which invariably harm non-cancerous cells (sometimes mutating them) and create overall systemic trauma—Sloan describes how the use of the subject of his book can eventually transform cancerous cells back into normal cells as a result of the dye's effectiveness in enhancing mitochondrial respiration. That function of the methylene blue similarly can reverse conditions as divergent as neurological damage, cardiovascular disease, depression, and many others that, collectively, have created an overburdened and unnecessarily costly healthcare system. One particular under-the-radar population that should be able to benefit from methylene blue is those afflicted with xenobiotic intolerances (more commonly known as multiple chemical sensitivities).

Because many individuals don't manifest overt symptoms and their conditions can't be diagnosed via standard testing, modern medicine has not been able to offer much guidance, much less assistance. Regrettably due to little understanding of the illness, many are considered hypochondriacs and, worse, sometimes neurotic. Without proper support, many are subjected to discrimination, ridicule, and ostracism. Unlike those with more definable and accepted illnesses, they generally lack employment and other opportunities and, as a result, essentially become environmental refugees. Other than a nutrient-dense diet and detoxifying and immune-enhancing supplements, the only means of addressing their disabling symptoms is avoidance of exposures that trigger their reactions. Frequently unable to function within mainstream society, some are forced to relocate to remote areas. Although not insufficiently investigated (there's little interest in exploring an unrecognized condition for which a single pharmaceutical agent isn't likely to cure or treat), most likely harmful chemical exposures cause the explosive formation of the aforementioned peroxinitrite. Astoundingly, Sloan mentions that methylene blue has been known to be a profoundly effective antidote for chemical poisoning for nearly one hundred years. In fact, many hospital emergency rooms have it available in the event of chemical poisoning when methemoglobinemia is evident.

One of the most contrarian positions advanced by Sloan involves the pathophysiology of Alzheimer's disease and other forms of dementia. He concludes that dementias are basically manifestations of decreased mitochondrial activity and explains that they are initiated by neuron oxygen deprivation from nitric oxide. He notes that the various drugs introduced to treat Alzheimer's haven't been very effective because they inappropriately increase acetylcholine levels by inhibiting the enzyme that causes the substance to disintegrate. That, as he explains, is a counterproductive approach because acetylcholine raises the concentration of nitric acid, which is what slows the oxidation of glucose to CO_2, thereby inhibiting the role of respiration within the cell's energy factory. Methylene blue not only reduces acetycholine levels but also inhibits both tau neurofibrillary tangling and the formation of beta amyloid plaques around neurons, both well-established hallmarks of Alzheimer's. This book also contains a useful discussion of a much more common malady that appears to be increasing in incidence. In documenting the effectiveness of the dye in treating depression, Sloan shows that those who use the substance can overcome "the blues." Accordingly, he contends that many instances of mental illness assumed to be psychologically based are instead metabolic diseases.

An application of the substance with the potential to have vast public health impact is for pain relief, mostly for acute indications. With eighty million Americans using drugs to alleviate pain and communities across the country still destabilized from the opioid crisis of the last few years, there are no reasons—other than inertia and non-patentability—not to recommend a nonaddictive and relatively safe compound for this purpose.

The practical guide (regrettably, no index is included in the compact book) offers helpful suggestions on how to obtain methylene blue, proper dosing, cautions on inappropriate use, and related matters. Unfortunately, it is not particularly well-written (Sloan can make the same claim about my review), includes unnecessarily colorful (pun intended) language, has a few typos and intersperses hype with hope. Nonetheless, health-conscious individuals should recommend and promote *The Ultimate Guide…* until they're blue in the face. If methylene blue ever becomes mainstream, we'll have a far healthier nation, one that no longer has the medical system escalatingly ravaging resources.

Review by Jay Hodin

All Thumbs Book Reviews

Plunderers of the Earth:
The Erosion of Civilization, the Mad Crusade to Control the Climate, and the Untold Stories of Soil and CO_2
By Julius Ruechel
Independently published

It took the better part of a #2 pencil, along with a sheet of stickers, to flag the many constructs of stark wisdom in this book, which includes meticulous graphs, photographs and citations. While only partway through the book, I contacted WAPF about doing a review.

Years ago, my life journey included being "taken" by Al Gore's book. (Please don't cancel me!) Then, doubts kept surfacing. Dr. Tom Cowan encourages us to learn through what we see and feel versus from experts. Through WAPF, I found Allan Savory's information on desertification, which gave me the type of "tangible" information that Cowan is talking about. Desertification is something I can see and feel here in the Midwest.

Soil health books galore have mesmerized me, but Ruechel's book, published in 2024, has topped them all in information-rich nuggets. The author has my deep gratitude for exorcising any traces of "climate narrative" still wasting space in my head. Email discussion with the author indicates that he has been a Weston A. Price Foundation follower for years.

Ruechel posits that, yes, the fact that carbon dioxide (CO_2) is increasing should be a concern to us—but not for the reasons portrayed by the "climate experts" and the media. It is not rising because of cow farts. (Livestock numbers are at an all-time low.) It is not high from fossil fuel use or even from the travel that you have been made to feel guilty about. Carbon dioxide increases in the atmosphere when carbon is released from volcanoes, oceans, biomass decaying or oxidizing and from *mismanaged soil.* The soil itself, tilled with a diesel tractor, emits far more carbon from being tilled than the tractor emits while doing the tilling!

The book is written in a "whodunit" format that kept me turning all six hundred eighty-three pages! This one is so rich in solid factual evidence—information that I will refer back to in the future—that I am unwilling to loan it out. After underlining and flagging, I wrote twelve pages of notes for easier referencing. (I will gladly share those notes with those of you who read the book.) I wish it were a required textbook for high school.

Just recently, Earth.com had a headline about CO_2 being at a higher level now than it has been in eight hundred thousand years! OK. They got my attention. Maybe it is. But does that mean it is dangerously high? Carbon dioxide is plant food, so how much CO_2 is too much for plants? Ruechel provides evidence that about 1300 ppm is ideal for plants. How high is CO_2 in our atmosphere now? Less than 500 ppm. How much CO_2 would be enough to wipe humans off the earth? About 4000 ppm, according to Ruechel.

As an "apolitical" reader of this book, Ruechel nonetheless prompted a direct foray into the politics of dirt. Politics is dirty, but politics, property rights and prosperity are all mired in soil mismanagement. It sounds too simple, but the truth is simple. It all starts with the denigration of the soil. The solution is not to mar our landscape with wind turbines or any of the other bloated, bureaucratic boondoggles wasting fiscal resources and furthering plunder. We need to care for our soil.

Ruechel concludes with three case studies on soil management and economic and political mayhem: the unraveling of the Sahel, Australia on fire, and Haiti's long descent into hell. All three arrows clearly point to soil denigration as the underlying culprit. Ruechel chillingly concludes with discussion of the "Water Wars" strangling the livestock industry in British Columbia. Definitely two thumbs up!

Review by Mary Walkes

Ruechel provides evidence that about 1300 ppm is ideal for plants. How high is CO2 in our atmosphere now? Less than 500 ppm.

Course Review

Functional Nutrition: The Building Blocks of Cellular Health
By Amy Wilson, NTP and
Jacey Schram, NTP, RWP
Wild Root Learning

I wish *Functional Nutrition* by Amy Wilson and Jacey Schram was part of the curriculum in every middle or high school. I imagine how much healthier and happier our youth would then be, increasing their chances of becoming thriving adults who contribute to our society in a positive way. Wilson and Schram, both Nutritional Therapy Practitioners, designed the forty-eight lessons of their in-depth, easy-to-follow textbook and accompanying student workbook to empower students by teaching them how to make healthy nutrition and lifestyle choices.

Describing the aims of the course, created for grades six through twelve, the two authors pledge that it will help students learn how and what to eat (taking their individual needs into account); how to make good/better/best food choices; how to be proactive in taking care of their bodies; and how their bodies function. In addition, they will learn about helpful and harmful ingredients, nutrition labels, stress management and reduction, the importance of rock-solid sleep, the impact of their light environment, the risks versus rewards of movement and the impact of their habits on the environment.

The guide for teachers clearly lays out the steps for how to implement the course over an entire school year (three times a week) or in a more accelerated manner over one semester (five times a week). The authors do a fantastic job of being thorough while also making what middle schoolers might perceive as "boring" actually very interesting. An example is the lesson on blood sugar regulation, which takes students through "a day in the life of a blood sugar roller coaster" and then "a day in the life of balanced blood sugar." The activities, such as sprouting beans, a cooking fat test, making a working model of the digestive system and a vitamin and mineral "headband game," are sure to keep students engaged as well as help them truly understand specific topics.

The authors do a fantastic job of being thorough while also making what middle schoolers might perceive as "boring" actually very interesting.

One of my favorite sections was "History Timelines," with timelines for raw milk, wheat, industrial seed oil, butter, olive oil, ghee, coconut oil, schmaltz, lard, tallow and plastic. Until now, I have never seen a nutrition course for young adults that also includes attention to environmental factors and the important role that sleep, light, stress management, movement and community play in health and vitality.

For those who follow the WAPF dietary principles strictly, the only conflicts they will encounter are the addition of sugar in the "calcium cofactor cupcake comparison" activity and the use of cacao instead of carob in the "homemade chocolate" recipe. However, these are very minor compared to all the gems in the coursework. Otherwise, the content is harmonious with WAPF principles and would be useful for beginners as well as those more familiar with functional nutrition.

As a homeschooling mother of a ten-year old, WAPF chapter leader and holistic nutrition and lifestyle coach, I consider myself somewhat of a tough audience when it comes to nutrition curricula, but I am definitely purchasing this learning bundle to work into our studies next school year! I would also suggest it for many adults I know; I even think it would be fun to complete with a group of friends. I would venture to say that even those who have extensive knowledge of Wise Traditions principles would benefit from the material and activities in the textbook and workbook. I strongly recommend it and hope that we will see many of our educational institutions implement it. The two components of this well-planned course can be purchased as a bundle for $190 or separately ($145 for the textbook and $60 for the workbook) from wildrootlearning.com. I give this course a gigantic thumbs up. Review by Anya Adams

Tim's Video Reviews

Introducing Homeopathy
Executive Producer Kim Elia
introducinghomeopathy.com/

Homeopathy was not always as relatively unknown to Americans as it is now. Several alternative treatment options including homeopathy were available to Americans more than one hundred years ago, before Rockefeller and his drug-pushing cronies launched a campaign to discredit all of their competition. In places where Rockefeller didn't have so much influence, like India, for example, homeopathic hospitals are not hard to find.

Beneficiaries of homeopathy included such unknowns as Queen Elizabeth, Beethoven, Edison, Twain and Usain Bolt. During the so-called Spanish Flu epidemic, those who opted for homeopathy fared dramatically better than those who took the allopathic route.

We see interviews in this video with several people who had serious health problems that were resolved by homeopathy. It has been shown to be effective for autism, drug addiction and a wide range of more common ailments.

Skeptics will claim it is nothing but a placebo, but homeopathy has been found to work on animals and plants. If animals and plants are prone to a placebo effect, they must be a lot smarter than we thought. I have said before that if the placebo works, I'll take it.

Where allopathic medicine takes a biochemical approach and view of medicine, homeopathy views health more from an energy and frequency perspective. Water memory appears to play a role, and that is something mainstream science has only fairly recently begun to look at and doesn't fully understand yet. If science doesn't understand it, then it isn't real, right? One more major problem with homeopathy is that as a practitioner, you can't make nearly as much money as the drug pushers.

There are a few brief references to viruses in the video. Most Weston A. Price Foundation members know that we are still waiting for credible evidence that viruses even exist. Aside from that minor detail, this is a good video, and the thumb is UP.

Silver Bullet
Dr. Mike Yeadon
drmikeyeadon.substack.com/p/silver-bullet

This twenty-minute video was produced by a former pharmaceutical company research executive who spent many years designing molecules for medicines. Dr. Mike Yeadon has a degree in toxicology and was a high-ranking Pfizer executive. He has since escaped the dark side and is uniquely qualified to tell us what is really going on there.

Yeadon explains that several components of the mRNA vaccine are known to be toxic. For example, the genetic sequence for the "spike" protein, whatever that really is, is known to be toxic. As for the lipid nanoparticles, they invade all parts of the body, especially the ovaries. This has been known for more than ten years. He assures us that it is not possible that all those components got in there by accident. The mRNA vaccine was deliberately engineered to do damage. Furthermore, even if you believe "effective" vaccines exist, it is no more possible to engineer a new vaccine in a year than it is to make a baby in one month even with more people and effort.

The other aspects of the response to the pandemic are equally indefensible. There may have been some new, severe illness in 2020, but the really severe cases were not that numerous. There was no pandemic or broad health emergency. The so-called PCR test is a fake diagnostic tool. The CDC has admitted that PCR cannot distinguish between Covid and the flu. Cases of flu mysteriously cratered to almost zero in 2020. Put those two factoids together, and the case for a pandemic turns to thin air.

Sedating and intubating respiratory patients and putting them on ventilators was never the

Homeopathy views health more from an energy and frequency perspective. Water memory appears to play a role.

Tim's Video Reviews

right treatment. This was widely known before five years ago. Strangely, that was completely forgotten in 2020. This amnesia was not just an isolated phenomenon. Medical practices radically changed all over the world at the same time. Most deaths attributed to Covid were really due to medical malpractice.

The Club of Rome came up with strategies in the 1960s to disrupt countries in ways that would make it difficult for the countries to solve the problems on their own. The idea was to pave the way for a global control structure or world government, which is what control freaks love most. Two of the scams they came up with are pandemics and global warming. The fear porn swirling around Covid, bird flu and monkeypox fails to stop some of us from seeing that they are all the same scam.

Yeadon is unaware of any evidence that viruses are any more real than cooties, Easter bunnies, snipes, pregnant men or recent Elvis sightings. This, of course, can't be allowed to gain traction among the general public or their scams are ruined.

The most important thing Yeadon says comes very briefly toward the end, almost like a footnote. Most of what I'm about to say did not explicitly come from him (so if you don't like it, don't blame him—blame me). While we can learn much from science, the materialist view that is pervasive among many scientists is a dead end. The only explanation materialism can offer us for our existence and the existence of all things is random chance, which, by definition, has no purpose. However, evil is violation of purpose, and good is fulfillment of purpose. Without purpose, good and evil are just meaningless noise and can easily trade places. That explains a lot. Pointless wars, deadly drugs and other forms of slaughter proliferate. Suicide rates go up because people don't even value their own lives. Unless we reconnect with the spiritual side of reality, nothing ultimately matters—and things will just get worse. Fortunately, I see evidence that many others besides Dr. Yeadon have figured that out. I could pontificate much more on this topic, but I will give you a break. . . this time. The thumb is very UP for this video.

CALIFORNIA CHAPTER LEADER RETREAT by Nori Hudson, East Bay Chapter Leader

California chapter leaders were invited to a retreat in Sebastopol, California, April 12-14, 2025, made possible by a bequest of the estate of Kristin Homme, health activist and scholar, who passed away in January 2024 from complications of mercury toxicity. A strong supporter of WAPF, you may know of Kris's Spring 2018 *Wise Traditions* article and book review, poster (Wise Traditions Conference 2022) and presentation (Wise Traditions Conference 2023).

Seventeen chapter leaders gathered to explore the many unique issues we face regarding food, health, farming and freedom, and to enhance existing networks and assets. The retreat featured guest presentations on farming, fermenting, herbs and legislation, and included opportunities to discuss our chapters' goals and aspirations, share our expertise and personal experiences, and foster continuing cross-fertilization between our chapters (and with those who could not attend). Our amazing kick-off potluck anchored us all weekend.

CHAPTER LEADERS (not in order): Lauren Ayers, Yolo County; Portia Ceruti, Chico, Cathé Fish, Gold Country; Steven Fowkes (sweetheart of Kris Homme); Karen Hamilton-Roth, Marin County; Elissa Hirsh, San Mateo County; Nori Hudson, San Francisco East Bay; Shan Kendall, Gold Country; Shelley Lane, San Mateo County; Desiree Lopez, San Joaquin County; Elaine Lou, Mountain View/Palo Alto; Tricia Moore, Contra Costa Tri-Valley; Myra Nissen, Contra Costa Tri-Valley; Geri Quintero, Siskiyou County; Shelly Rogers, Sacramento; Sarah Rose, Yolo County; Margaret Stokes, Crescent City; Trish Trombly, Yolo County.

INSET: Kristin Homme

Vaccination Updates

RETHINKING THE ROUTINE: A CLOSER LOOK AT VITAMIN K SHOTS FOR NEWBORNS

By Kendall Nelson, Director, *The Greater Good*

The discovery of a pregnancy is often met with quiet, sacred joy. To confirm the new life taking shape, many women make their way to their doctor's office, where the pregnancy is medically recognized. But with that first appointment, something else begins—entry into a standardized system that has mapped out nearly every step of prenatal care in advance.

From that moment on, a series of scheduled visits unfolds, involving checkups, ultrasounds, blood tests, screenings and diagnostic tests for conditions like Down syndrome. Medical personnel also encourage expectant mothers to receive multiple vaccinations: the flu shot, the combination tetanus-diphtheria-pertussis (Tdap) vaccine and, more recently, the respiratory syncytial virus (RSV) and Covid injections. Each recommendation is framed as offering protection and reassurance, and—trusting the system—most women follow along.

When labor begins, many parents giving birth in a hospital setting arrive without a comprehensive birth plan or full awareness of what will be done to their newborn in those first tender hours. Hospitals, for their part, operate by protocol—a checklist that begins the moment a baby draws his or her first breath.

One of the first items on that list is the vitamin K injection, typically given without question, without pause, and often without parents' full understanding of its purpose or ingredients. Though not technically a vaccine, vitamin K shots are part of a suite of Day One hospital interventions[1] that also include the hepatitis B vaccine, RSV monoclonal antibody prophylaxis (recommended by the CDC for infants born during the RSV "season" if the mother did not get the vaccine fourteen days prior to delivery), antibiotic eye ointment and newborn metabolic screenings.[2]

Let's take a closer look at the vitamin K shots—not out of fear but from a place of reverence for new life and deep respect for the responsibility of informed consent.

TWO FORMS OF VITAMIN K

Vitamin K is an essential nutrient that plays a critical role in the body's ability to form blood clots. The name "vitamin K" comes from the German word *Koagulation*, highlighting its importance in the clotting process.

Because our bodies cannot produce vitamin K and can store it only in small amounts, we must rely on dietary sources to meet our needs. The two primary forms are vitamin K_1 (phylloquinone), a water-soluble, plant-based form found in leafy green vegetables, and fat-soluble vitamin K_2 (menaquinones), found in animal-based and fermented foods and produced by beneficial gut bacteria.[3,4] Both forms of vitamin K are vital for activating proteins involved in blood coagulation and other physiological functions, but they differ in their absorption rates, tissue distribution and bioavailability.[5]

Vitamin K_2—or "Activator X" as Dr. Weston A. Price called it—is more involved in long-term health. It supports reproductive health, plays a key role in prevention of tooth decay, builds strong, resilient bones and helps protect blood vessels by discouraging calcium buildup and reducing inflammation. The highest concentration of vitamin K_2 is in the brain, where it supports the formation of the myelin sheath—crucial for learning and cognitive function; it also helps produce lipids (called sulfatides) that are vital for brain health and whose absence may be linked to neurological issues such as seizures.

In children, vitamin K_2 contributes to healthy growth by ensuring that the bone growth plates stay open long enough to allow proper development, particularly of the face. It is essential not only for skeletal and neurological development but also for overall energy metabolism.[6]

THE RATIONALE FOR NEWBORN INTERVENTION

Hospitals began routinely giving newborns a single shot of phytonadione, a synthetic form of vitamin K_1, in 1961.[7] The stated rationale for administering the injection is to prevent vitamin K deficiency bleeding (VKDB), a rare but serious condition, involving insufficient clotting factors, that can arise with little warning. VKDB places infants at risk of spontaneous bleeding anywhere in the body, including the brain (intracranial hemorrhage).[8]

There are three types of VKDB, classified according to the timing of onset. "Early VKDB," occurring within the first twenty-four hours of a baby's life, is most often associated with maternal medications like

the anticoagulant warfarin[9] (see the article on anticoagulants in this issue of *Wise Traditions*), which interferes with vitamin K metabolism. "Classical VKDB" (between days two and seven) typically presents as bleeding from the umbilical stump or gastrointestinal tract. "Late VKDB" (between weeks two and twelve) is the rarest but most dangerous form, frequently involving life-threatening intracranial bleeding.[7] Symptoms of VKDB can include bulging fontanelles, bruising, feeding intolerance, irritability, nosebleeds, jaundice and pallor.

The CDC says that newborns enter the world with naturally low levels of vitamin K, blaming biological factors such as limited placental transfer of vitamin K, immature gut flora and minimal levels present in breast milk.[10] But are these naturally low levels truly a pathological deficiency or simply a normal part of neonatal physiology? As many researchers and parents opposed to the injections argue, if all newborns are born with what we define as "low" vitamin K levels—with "deficiency" determined on the basis of adult norms—perhaps those "low" levels are biologically appropriate for this early stage of life and not pathological. Moreover, critics contend, administering vitamin K injections without a deeper understanding of the long-term consequences amounts to overriding nature's design.

Newborn vitamin K shots illustrate how interventions aimed at addressing presumed "deficiencies" can introduce new challenges—raising important questions about the balance between prevention and adverse effects.[11] The injections may be intended to prevent one serious condition, but ironically, the large dose of synthetic K_1—one hundred times greater than the Recommended Daily Allowance for infants[6]—can trigger complications such as jaundice, impairing the infant liver and its ability to detoxify.

The CDC warns parents who question the vitamin K shots that babies who do not receive them are eighty-one times more likely to develop late VKDB,[10] but the absolute risk is low. Again according to CDC, somewhere between one in fourteen thousand and one in twenty-five thousand infants who are not given the vitamin K shot will develop late VKDB.[10]

The website Giving Birth Naturally points out that a number of factors associated with hospital births can increase the risk of cerebral hemorrhage; these include precipitous or prolonged labor, significant fetal head molding, birth trauma, forceps or vacuum-assisted delivery, variable heart rate decelerations during late labor and circumcision.[11] The immediate clamping and cutting of the umbilical cord also deprives babies of up to 30 percent of their blood,[12] including clotting factors.

NOT JUST A "VITAMIN"

Contrary to what many parents probably believe, vitamin K injections contain more than just a "vitamin." In addition to synthetic compounds, chemical stabilizers and preservatives (see sidebar), they sometimes contain aluminum—a known neurotoxin (see next section). Package inserts for aluminum-containing vitamin K products caution that the aluminum "may be toxic,"[13] notably for premature infants whose systems are especially vulnerable.

Immediate adverse reactions to synthetic vitamin K have included respiratory distress, skin rashes, swelling and anaphylaxis. In premature neonates and infants in intensive care, the preservative benzyl alcohol has been linked to "gasping syndrome" and fatal reactions.[13,14] The manufacturer of one phytonadione product—a Pfizer subsidiary—provides labeling that is strikingly clear: "Severe reactions, including fatalities, have occurred during and immediately after intravenous injection of phytonadione."[13,14] The insert continues, "Severe reactions, including fatalities, have also been reported following intramuscular administration."[13,14] This is not conjecture—it is printed in black and white.

Beyond acute events, there are broader concerns about the safety profile of synthetic vitamin K—even at standard doses. Other documented side effects include cytotoxicity in liver cells, formation of free radicals and mutagenic effects,[15] all of which are suggestive of potential long-term toxicity. Synthetic vitamin K also weakens the immune system, interferes with the body's natural vitamin K cycle and disturbs calcium metabolism. In addition to hyperbilirubinemia (jaundice), it can produce effects like vomiting, hemolytic anemia (the abnormal breakdown of red blood cells), albuminuria (a sign of kidney problems), irritation of the skin and mucous membranes, eczema and other allergic reactions.[15-17]

In the 1990s, a few researchers expressed concern about potential carcinogenic effects of intramuscular vitamin K shots, describing a possible link with childhood leukemia[18,19] and other childhood cancers.[20,21] Other researchers promptly refuted the claims,[22] as did health officials, effectively squashing any further investigation of the topic. For the authors of the 1992 paper, who found the relationship between intramuscular vitamin K and childhood cancer "biologically plausible," the conclusion was that the benefits of the newborn shots were "unlikely to exceed the potential adverse effects."[20]

ALUMINUM AND MORE ALUMINUM

Aluminum is one of the most controversial ingredients in early-life

medical interventions. Dr. Christopher Exley, a leading authority on aluminum toxicity, has published a large body of research in peer-reviewed journals showing that aluminum can accumulate in brain tissue and may remain there for decades.[23] Exley's work has raised concerns about the cumulative and biologically persistent impact of aluminum from multiple sources that include vaccines, intravenous formulas,[24] environmental exposures and some vitamin K shots.

For newborns, hepatitis B vaccines are a Day One aluminum exposure. Like the vitamin K shots, hepatitis B vaccination is a universal recommendation for U.S. babies, despite the fact that few are at risk. One dose contains two hundred fifty micrograms of aluminum—an amount that far exceeds Agency for Toxic Substances and Disease Registry (ATSDR) safety thresholds when adjusted for an infant's body weight. In fact, this is approximately seventy-five times higher than what is considered "safe" for a 7.3-pound newborn in a single day.[25] By two months of age, the standard vaccination schedule can expose an infant to as much as one thousand two hundred twenty-five micrograms of aluminum—and nearly five thousand micrograms by eighteen months.[26]

Because the detoxification pathways of babies *in utero* and in the early days of life are immature, their developing brains are highly susceptible to disruption.[27] Introducing even small amounts of neurotoxic compounds during this delicate window of development could have lasting consequences.

Research shows that aluminum has the potential to damage brain cells essential for thinking, memory and movement. Introduced into the body in the form of vaccine adjuvants, aluminum can overstimulate the immune system, sometimes leading to harmful inflammatory or autoimmune responses.[28] A growing body of evidence links aluminum adjuvants to an increased risk of conditions such as chronic fatigue, cognitive impairment, muscle weakness and multiple-sclerosis-like disorders, as well as arthritis, type 1 diabetes, lupus and inflammatory bowel disease.[29] Aluminum is also associated with the neurological changes seen in autism spectrum disorders, which now affect a staggering one in thirty-one children in the U.S. The growing prevalence of autism should be prompting serious questions about environmental and pharmaceutical contributors such as aluminum.[30]

THE ORAL OPTION

Many researchers have argued that a viable

TROUBLING INGREDIENTS IN VITAMIN K SHOTS

POLYSORBATE 80: A chemical emulsifier linked to gut inflammation, immune system disruption and potential carcinogenic byproducts.[39-41]

PROPYLENE GLYCOL: A synthetic solvent also used in antifreeze. Linked to metabolic issues, neurotoxicity and toxic buildup in infants with immature liver detox pathways.[42]

BENZYL ALCOHOL: A preservative associated with "gasping syndrome" in premature infants, which can lead to metabolic acidosis, seizures, respiratory failure and death.[43]

POLYETHOXYLATED FATTY ACID DERIVATIVES: Derived from castor oil, these are used as an emulsifier; may provoke allergic reactions or impact underdeveloped immune systems.[44]

LECITHIN: Another emulsifier; while naturally derived, it can cause allergic reactions and affect gut permeability.[45]

HYDROCHLORIC ACID: Used to adjust the pH of the injection; corrosive in nature.[46]

SODIUM HYDROXIDE: Another pH adjuster; highly caustic in concentrated forms.[47,48]

GLYCERIN (GLYCEROL): Added for stability. In large doses, can cause headaches, nausea and central nervous system issues, especially in neonates.[49]

SODIUM CHLORIDE (SALT): Used to balance tonicity. In neonates, electrolyte imbalance can be serious and even life-threatening.[50]

WATER FOR INJECTION (WFI): Sterile water. If contaminated with endotoxins, can trigger dangerous inflammatory responses.[51]

ETHANOL/DEHYDRATED ALCOHOL: Used as a solvent in some formulations; even trace amounts may affect liver and neurological development in newborns.[52]

GLYCOCHOLIC ACID: A bile acid derivative used as an emulsifier in certain formulations. May cause irritation and is not typically present in natural nutrition at birth.[53]

Even "preservative-free" formulations of the synthetic vitamin K injection contain additives such as polysorbate 80, propylene glycol, sodium acetate anhydrous and glacial acetic acid (vinegar)[54] to aid in solubility and absorption.[55]

alternative to injection of synthetic vitamin K is oral supplementation, an approach adopted by countries such as the Netherlands,[31] Japan[32] and Switzerland.[33] Where oral administration has been integrated into standard newborn care, rates of VKDB are remarkably low. Although not approved by the U.S. Food and Drug Administration (FDA), oral vitamin K, particularly in the form of high-quality, preservative-free drops from natural sources, offers a gentler, more integrative approach that aligns with many families' desire for minimal intervention.

For those concerned about the efficacy of oral vitamin K supplementation, the research is encouraging. One study found that both oral and intramuscular vitamin K_1 led to comparable rises in serum vitamin K levels within twelve hours of birth, with a similar half-life of about thirty hours.[34] There were no significant differences in the activity of key clotting factors during the early days of life, leading the investigators to conclude that oral vitamin K_1, when administered properly, "is as effective as the intramuscular route" in the immediate newborn period.

That said, it is important to recognize that there have been no randomized controlled trials specifically measuring the impact of either intramuscular injection or oral administration on late-onset VKDB.[35] This highlights the importance of informed decision-making, especially given that late VKDB primarily affects a small subset of babies who may be at higher risk due to underlying conditions or childbirth-related factors.

NATURAL VITAMIN K SUPPORT

Expectant mothers can support their baby's vitamin K levels by regularly including foods rich in this essential nutrient during pregnancy. As already mentioned, leafy green vegetables provide excellent sources of vitamin K_1, while mothers can obtain vitamin K_2 from foods like cheese (especially hard cheeses),[36] liver, egg yolks, butter, poultry fat and meat from grass-fed animals. Incorporating lactofermented foods into the daily diet encourages the growth of beneficial bacteria in the mother's gut and birth canal, which can aid in vitamin K production. These nutrients and microbes can be passed to the baby through the placenta before birth and through exposure during vaginal delivery.[6]

After birth, immediate and frequent breastfeeding continues this natural support. Colostrum—the golden, nutrient-rich fluid produced in the first days postpartum—contains a concentrated dose of vitamin K.[11] Colostrum from a well-nourished mother will deliver vital nutrients in proportions exquisitely tailored to a newborn's early needs. It makes sense that nature designed infants to receive their first nourishment this way: directly from their mother, through the intimate act of breastfeeding—laying the groundwork for resilience, health and balance from the very beginning.

MAKING INFORMED CHOICES

Vitamin K shots are not simple vitamins or benign interventions—they are pharmaceutical products that come with trade-offs, formulated with synthetic ingredients and administered at doses far exceeding what nature provides. Moreover, because a newborn's liver doesn't begin functioning fully until three to four days after birth, babies have very little ability to process or detoxify the high dose of synthetic vitamin K and its accompanying ingredients.[6]

Some parents who understand this choose to forego vitamin K supplementation entirely, instead placing their trust in careful maternal nutrition, exclusive and early breastfeeding and the body's innate ability to regulate itself. While this choice carries a theoretical risk, it can be a considered an informed one.

For the small number of infants who may be at higher risk of deficiency-related bleeding, oral vitamin K may be a sensible precaution. Because hospitals in the U.S. are often unfamiliar with oral vitamin K protocols, families interested in this route should plan ahead. Partnering with a supportive provider who understands international best practices and appropriate dosing is key, as standard hospital staff may not be trained to offer or manage this option.

It is still worth asking whether newborns' naturally low vitamin K levels might serve a physiological purpose—perhaps even playing a protective role during birth and the early weeks of life.[37] Ultimately, parents should make the decision of whether and how to administer vitamin K with intention, grounding the decision in their family values, reviewing the available evidence and gaining an honest understanding of potential risks and benefits.

There is also a deeper conversation to be had about childbirth—one that acknowledges birth not only as a medical event but as a profound rite of passage. The newborn experience is sacred. Every touch, breath and intervention sends a message to the infant's nervous system. Do we want to rush them into the world with cold hands and needles, or warmly welcome them with reverence, patience and trust?

One vital expression of that reverence is delaying the cutting of the umbilical cord. As mentioned, immediate clamping—often done to expedite newborn procedures like the vitamin K and hepatitis B injections—can deprive a baby of up to 30 percent of blood volume, along

with precious stem cells critical for early development. Delayed cord clamping, in contrast, supports a smoother transition into life outside the womb, enhances oxygenation, bolsters natural immunity and has been shown to reduce the risk of intraventricular hemorrhage and late-onset sepsis.[38] The cord blood also provides a rich source of vitamin K for the baby if the mother consumes plenty of vitamin K in her diet.[6]

Medical interventions may have their place, but they should never be automatic. They should be thoughtful, transparent and offered with full disclosure, not coercion. Informed consent is a fundamental human right, not a formality. Parents deserve to know what is being injected into their babies and why—which means understanding not just the benefits but also the rationale, risks, ingredients and alternatives. They deserve time and space to make a thoughtful, informed decision without pressure.

Let us return to a model of care that honors parents as sovereign decision-makers. The greatest gift parents can give their newborn is their presence, protection and awareness. That includes keeping the baby close at all times—either with the parents or a trusted family member—so that no intervention, whether a vitamin K shot or vaccine or anything else, is given without full knowledge and consent. Parents who eschew blind obedience and do their research, ask the deeper questions, trust their intuition and make a plan will be well equipped to engage in the most radical parenting act of all—conscious, informed love.

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A Campaign for Real Milk

LIFE IN THE MILK: A HISTORY OF INTRAVENOUS MILK INJECTIONS

By Joseph Wood Anstett

Throughout medical history, doctors have recognized occasions when there is a potential need for transfusions of blood or blood substitutes.[1] The West's search for substitutes began in earnest in the 1600s, with substances such as "beer, urine, milk, plant resins, and sheep blood" taken into consideration as possible replacements.[2] Two centuries later, however, the concept of blood transfusion still remained both novel and experimental.

Alfred François Donné—a nineteenth-century pioneer of microscopy, microbiology and the study of blood[3]—explored milk's potential uses by injecting it into the veins of dogs and rabbits. Reports that this experiment had produced no negative effects got some clinicians interested in trying out intravenous (IV) milk transfusion on humans. They believed that there were similarities between blood, milk and a milky-white fluid called chyle. Although their view that blood was made out of chyle was erroneous (chyle, made of lymph fluid and fats, actually forms in the small intestine during digestion and travels from there to the blood), physicians wondered whether milk might be a safe blood substitute.

Importantly, these pioneers viewed blood as a living substance, something that "in obedience to laws which govern its origin and death… cannot be for any appreciable time removed from the circulatory condition without undergoing change." This understanding led most to conclude that any milk used for transfusion had to be milk that likewise had "not parted with life"[4]—in other words, it needed to be perfectly fresh.

Nineteenth-century medical journals went on to publish numerous case reports describing the successful use of IV milk for a wide range of conditions, including anemia, cholera and severe diarrhea, pulmonary and other forms of hemorrhage, kidney disease, typhoid fever, ulcers, wasting diseases such as tuberculosis (TB) and conditions that we would now associate with cancer. However, the literature also documents failures and adverse reactions in both humans and animals, possibly related to poor-quality milk or the use of too much milk. When scientists began to perfect IV saline solutions in the 1880s,[5] practitioners largely lost interest in IV milk.

"FRESH LIVING MILK" SAVES THE DAY FOR A CHOLERA PATIENT

In the 1800s, cholera had become a frightening scourge of industrializing cities.[6] Characterized by severe, rapid-onset diarrhea and sudden depletion of body fluids and salts,[7] cholera could kill a person within a few hours of symptom onset. As *Britannica* explains, the "cellular pumping mechanism that controls the movement of water and electrolytes between the intestine and the circulatory system. . . effectively becomes locked in the 'on' position, causing the outflow of enormous quantities of fluid. . . into the intestinal tract."[7]

Clinicians of the era observed that the blood of cholera patients had unique characteristics (later understood as the result of the severe dehydration and electrolyte imbalances), including being "thick" and lacking viscidity (stickiness or viscosity). They concluded that patients would benefit from new blood or a blood substitute, and fresh milk presented an intriguing option.

In Toronto, two prominent physicians had the opportunity to give IV milk a trial run in July 1854 during a local cholera epidemic. Dr. Edward Mulberry Hodder (1810–1878), born in England, had moved to Canada in 1838 to teach at Trinity College Medical School. Credited as the "father of obstetrics and gynecology" in Ontario, Hodder pioneered the use of carbolic acid as an antiseptic in surgery and childbirth[8] (see the "From the Archives" article in this issue of *Wise Traditions* for Dr. Herbert Snow's

Most concluded that any milk used for transfusion had to be milk that had "not parted with life"—in other words, it needed to be perfectly fresh.

The procedure involved bringing a cow that happened to be "grazing close at hand" (on lush green summertime grass, no less) to the cholera shed.

thoughts on carbolic acid). Dr. James Bovell, too, was a leading figure in Canadian medical circles, including as a researcher and mentor.[9] Both doctors were unhappy with the failure of public health authorities to ensure a clean water supply and clean up the filth contributing to cholera.[10]

The 1854 epidemic prompted the improvised establishment of a "cholera shed," which may have been part of a hospital or perhaps a building hastily given "hospital" status to isolate the overload of cholera patients from the healthy. Describing the situation, Bovell wrote, "Wards became overcrowded; the sick had neither utensils nor proper bedding, nor food for their accommodation; and much distress arose."[4]

At about 10:00 pm on July 9 of that year, Thomas Harrison, a forty-year-old Irish farmer who had immigrated to Canada, developed sudden nausea, a "tendency to fainting" and diarrhea. After first being given medicines that provided no benefit, he was transferred to the cholera shed at 10:00 am the next morning, by which time he was in serious condition: "pale and cadaverous, sunken and cold," with vomiting, cramps and a weak pulse.[4] By 1:00 pm, it looked as though Mr. Harrison would soon die.

In the face of Harrison's distress, Drs. Hodder and Bovell proposed the experimental procedure of transfusing "fresh living milk." Because the two doctors' colleagues were worried that the procedure might kill Harrison and stir up unwelcome public attention, Hodder and Bovell delayed their IV intervention "until there could scarcely be a doubt that death was imminent." Here is how Bovell described that moment:

> "At about 3 o'clock the prostration had greatly increased; the man lay on his back, with his eyes sunken, countenance of ashy hue, hands cold, tongue equally so, breath drawn in gasping sighs, and the pulse gone from the wrist. We now, therefore, commenced the operation."[4]

The procedure involved bringing a cow that happened to be "grazing close at hand" (on lush green summertime grass, no less) to the cholera shed, for the doctors believed it essential to use milk that was full of life. Filling a four-ounce brass syringe, the two physicians slowly injected the milk into the patient's veins, all the while monitoring his pulse. Hodder later described the dramatic events:

> "I ordered a cow to be driven up to the shed, and while she was being milked into a bowl (the temperature of which was raised to about 100° Fahr.) through gauze, I opened a vein in the arm and inserted a tube, and then filled my syringe (also previously warmed), and injected slowly therewith. No perceptible change, either for better or for worse, took place; so after waiting two or three minutes, I again filled the syringe and injected seven ounces more. The effect was magical; in a few minutes the patient expressed himself as feeling better; the vomiting and purging ceased, the pulse returned at the wrist, the surface of the body became warm—in fact, the man rallied, and speedily recovered without a bad symptom."[11]

Bovell elaborated:

> "[A]lmost simultaneously the eyes responded, the half-closed lids being raised, the lustreless orbs giving utterance to the relief which was being given, while deep and well-drawn inspirations told how readily the lungs responded to the vital tide which now flowed towards them. . . . [T]he voice, which was unearthly before, was clear, though not strong; and whereas, before the operation he was perfectly careless and, indeed, reckless as to his personal safety and the care of his family, almost his earliest thoughts were directed to the welfare of his children and wife."[4]

Keeping their patient warm with hot water bottles and a turpentine rub, the two doctors gave him small amounts of "strong beef tea whenever he would take it," along with two egg whites and an ounce of brandy. After getting a "tolerable" night's sleep, Harrison woke with no further vomiting, diarrhea, pain or cramps. In fact, the diarrhea vanished so precipitously that one doctor gave him a laxative! Six months

later, history tells us, Harrison was still alive.

Although the scientific understanding of blood in the 1850s might not have been perfect, the logic in favor of milk as a blood substitute held some truth. Milk is full of white blood cells—including neutrophils, lymphocytes, monocytes, immunoglobulin and epithelial cells—that perform a wide range of immune functions. In reversing Harrison's diarrhea and contributing to his full recovery, the IV injections of raw milk appear to have strengthened his immune system while supplying the hydration and electrolytes that the depleted man so badly needed.

OTHER TORONTO TRANSFUSIONS

On July 13, Hodder and Bovell had the opportunity to repeat their success with a nursing mother of four, Irish immigrant Mary Hall. Admitted to the cholera shed with symptoms similar to Harrison's, Hall initially was given silver nitrate[12] and, every half-hour, beef-tea, brandy and egg; when the next morning found her continuing to experience diarrhea, with an "extremely feeble and quick" pulse, a "countenance pinched and of ghastly hue," a "cold and pointed" tongue and seeming restless and "careless about her fate," the two doctors decided to repeat the procedure used to such good effect a few days earlier:

> "Two syringes full, equal to 8 oz., of the fresh warm milk from the same cow which afforded the supply to Harrison, were injected into the vein. As soon as the operation was completed, she expressed the greatest relief, and seemed irresistibly impelled to draw deep and frequent inspirations."[4]

By July 17, a fully recovered Hall was able to return home.

In his report describing these experiences, Bovell explains that he did two further milk transfusions, apparently without Hodder's help, with patients who again were nearly at the point of death. In both cases, the patients initially seemed to benefit from the transfusion but died within a day. In one case, Bovell describes the woman in question as having "veins. . . so empty and small, that I was for some time foiled in my endeavours to find one."[4]

Bovell subsequently fell ill himself and could not continue caring for cholera patients. Mr. John Mackenzie, a medical student credited by Bovell as being extremely competent and diligent, stepped up to help. Mackenzie administered IV milk transfusions to three more patients who arrived in extremis; unfortunately, despite seeming to "revive" post-transfusion, all three died. Bovell's report mentions in passing that one of them, "a very athletic young man," was first given calomel[13] (a toxic mercury compound); it is possible that the others, too, were mercury-poisoned before their transfusions.

Considering that all seven patients were in serious condition at the time of transfusion, it is noteworthy that fresh milk saved two out of seven and caused nearly all to experience some visible improvement. Is it possible that more might have survived if the milk had been injected sooner or if enough milk had been injected to provide sufficient rehydration? Notably, Hodder, with two out of three patients surviving, had the best track record, suggesting that he may have used precautions not followed by Bovell or Mackenzie.

SUCCESSES AND FAILURES IN AMERICA

According to the historical documents that I've found, no one attempted milk infusions again for about two decades. In 1873, Dr. Joseph Howe, a New York City physician who had read about Hodder's successes, tried injecting raw goat's milk into a TB patient who had been unable to eat and was literally dying of starvation.[14] The liquid Howe used, which had been milked about three hours previously and transported by train,[15] did not yield good results. After IV injection of just one and a half ounces, the patient reported vertigo and chest pain and displayed involuntary eye movements, with a renewal of those symptoms after being given three more ounces of milk ("retained at room temperature") later that day. Although the pulse seemed improved and the man reported feeling better, he died (reports differ on whether he perished the next day or four days later). Howe's next milk injection recipient (another terminal TB patient) died a mere four hours post-transfusion.

Before trying again with humans, Howe sought to repeat Donné's experiment, injecting raw milk into dogs; when all seven dogs died, he wondered whether the "excessive volume of milk given to the dogs, rather than the milk itself. . . killed them."[14] Other physicians of the day speculated that the failures in humans and animals might be the result of not using fresh milk obtained mere minutes before, as Hodder had done when he conscripted a healthy nearby cow into service. Along those lines, Dr. Eugene Dupuy concluded around the same time that whereas "the intravenous injection of decomposed milk into dogs is uniformly fatal. . . the same experiment, if practised with perfectly pure and fresh milk, is entirely innocuous."[15]

In 1878, Howe made a third attempt with goat's milk, intravenously administering four ounces to a woman with advanced pulmonary TB (historically known as "phthisis") who then reportedly experienced "marked improvement."[16] However, when Howe subsequently injected human breastmilk into a woman suffering from abscesses on her ribs and

vertebrae as well as intestinal inflammation, the patient's pulse spiked and then became intermittent; in addition, her breathing became "labored and irregular" and then stopped, forcing the team to revive her by artificial respiration.[17] She died ten days later. An autopsy seemed to exonerate the IV milk, instead revealing long-standing intestinal ulcerations, bone necrosis and lung damage from pneumonia; nonetheless, the "unfavorable and alarming symptoms" observed in this case prompted Howe to give up on IV milk. He wrote, "Some have found [transfusion of milk] useful, while others, like myself, consider it a dangerous operation, and one which in no degree possesses the value of blood transfusion."[17]

Another New York City doctor, T. Gaillard Thomas, was an "outspoken advocate of milk transfusion."[14] In 1875, Thomas adopted the Hodder approach for a thirty-year-old mother who had experienced a severe uterine hemorrhage following the surgical removal of a very large tumor four days prior. At the point when Thomas made the decision to try an IV of "pure, fresh milk," the woman "appeared to be dying from sheer exhaustion." He was able to find an Alderney cow (a now-extinct cross-breed of Guernseys and Jerseys) and reported:

> "[The] young and healthy cow was driven into the yard, a pitcher with gauze tied over its top was placed in a bucket of warm water, the vein was exposed, and the cow milked at the moment the fluid was needed. . . . The first effect which evidenced itself did so after about three ounces had been injected. Then the pulse became so rapid and weak that Dr. Mitchell. . . could scarcely detect it. The patient declared that she felt as if her head would burst, and seemed greatly overcome. I went on slowly, however, transfusing the fluid until [eight and a half ounces] had been reached; she was then left perfectly quiet. . . . [T]oward midnight the patient fell into a quiet sleep. . . . The patient steadily progressed to complete recovery."[18]

Thomas's second patient was a twenty-two-year-old woman with a very large and challenging ovarian tumor who experienced numerous complications and setbacks in the three weeks following its surgical removal. When Thomas observed her to be close to death, he decided to once again try IV milk, obtaining with "great difficulty. . . a cow from the stable of a gentleman living a mile and a half away," which "was driven to the door of the pavilion in which the patient lay." In this instance, five IV injections of milk over a six-day period were unable to vanquish the woman's incurable "morbid state"; however, Thomas credited the milk with giving the patient—who he initially expected to die within a few hours—a nearly week-long "reprieve."

In a third case, Thomas injected milk into a woman who again had a large ovarian tumor, but because she was hemorrhaging severely, she died fourteen hours later. Thomas alluded to having performed four additional IV milk transfusions (for a total of seven) but did not provide details.

Based on his success with the first woman—about whom Thomas conservatively stated that while "he would not positively assert that the transfusion of milk saved the life of the patient," it was "his firm conviction. . . that it did"[19]—and referencing the reported successes of other physicians, Thomas predicted a "brilliant and useful future" for IV milk (see sidebar for a summary of his observations).

In the late 1870s, Dr. Charles T. Hunter performed IV milk transfusions on four patients, two with severe anemia and two with

DR. T. GAILLARD THOMAS: A FAN OF IV MILK

In 1878, New York doctor T. Gaillard Thomas summed up his opinions[18] about the merits and how-to's of IV milk (which he referred to as "intra-venous lacteal injection") as follows [slightly edited for brevity]:

1. The injection of milk. . . in place of blood is a perfectly feasible, safe, and legitimate procedure.
2. [N]one but milk removed from a healthy cow within a few minutes of the injection should be employed. Decomposed milk is poisonous.
3. A glass funnel, with a rubber tube attached to it, ending in a very small canula, is better, safe, and more attainable than a more elaborate apparatus, which is apt, in spite of all precautions, to admit air to the circulation.
4. The intra-venous injection of milk is infinitely easier than the transfusion of blood.
5. The injection of milk, like that of blood, is commonly followed by a chill, and rapid and marked rise of temperature; then all subsides, and great improvement shows itself in the patient's condition.
6. I would not limit lacteal injections to cases prostrated by haemorrhage, but would employ it in disorders which greatly depreciate the blood, as Asiatic cholera, pernicious anaemia, typhoid fever, etc., and as a substitute for diseased blood in certain affections.
7. Not more than eight ounces of milk should be injected at one operation.
8. [I]f milk answers, not as good, but nearly as good, a purpose as blood. . . its use will create a new era in this most interesting department of medicine.

typhoid fever; only one survived. That patient, a thirty-two-year-old woman with "extreme anemia" and "spinal irritability," received three separate injections of "fresh-drawn" milk heated to 100F°. Although she experienced violent symptoms in response to the first injection (including labored breathing, a variable pulse, chills, hives, "capillary congestion of the face and surface of the body," bulging eyes, "turgid" lips and "the whole expression wild and alarming"), the medical team administered two more infusions on Days Seven and Twenty. The side effects—the same ones plus some new ones such as headache, nausea, vomiting, cramping and pain—proved temporary, and the woman ended up making a full recovery.[20]

Hunter's second anemia patient—a thirty-two-year-old sailor who received three infusions over a two-week period—also experienced severe side effects and only temporary improvement before dying. In this instance, Hunter humbly concluded that the operation had probably "hastened the death of the patient," but he remained favorably disposed toward IV milk as a last resort in "cases of hemorrhage and great debility."[21]

Without full information about the entire set of interventions performed on these patients, it is difficult to draw conclusions about whether the milk influenced the fatal outcomes, and an 1879 report about Hunter's first two cases makes precisely this point. That report ventures the opinion that the side effects might have been an adverse reaction to quinine (both patients received repeat doses of quinine as well as morphine) rather than to the milk.

BOTH AN ART AND A SCIENCE

Respected Irish surgeon Austin Meldon, based at the Jervis Street Hospital in Dublin, was by far the most successful physician to use IV milk transfusion, performing the procedure thirty-two times with mostly favorable results.[16] When he tallied twenty of his cases, nine of twelve patients with phthisis recovered, as did all four with pernicious anemia, both patients with exhaustion from hemorrhage and one of two patients recovering from typhoid fever.[22] As of 1881, Meldon was urging his fellow professionals to give IV milk transfusions a "fair trial," stating that the procedure seemed "to have fallen into unmerited disrepute" both in the UK and America.[16]

In only one early case (a thirty-year-old man with typhoid fever) did Meldon's intervention elicit immediate and dramatic symptoms similar to those seen in Hunter's second case, while injecting a larger quantity of milk (ten ounces) than Meldon later came to believe was optimal: "During the injection the pulse increased in force, the patient complained of great cold, and his face became of a dusky hue. No sooner had the operation been finished than the respiration became very much obstructed, the patient gasping for breath, and the fingers, feet, and lips became cold and livid." By that evening, the patient had significantly improved and continued to strengthen over the coming days. Two and a half weeks later, however, he showed signs of regressing; after the patient rather reluctantly acquiesced to a second transfusion, he died within a few hours.

Like Hodder and others, Meldon came to believe that the properties of the milk were important, and he seems to have mostly gotten it right. Most notable was his revelation that the milk, ideally, should have the same pH level as the blood. (A pH of 7.0 is neutral, values below 7.0 are more acidic, and values above 7.0 are more alkaline.) Normal blood pH is in the range of 7.35 to 7.45. Meldon said,

> "Some deaths have occurred during or immediately after the operation, but in these cases the milk was either acid or kept for too long a time, or too large a quantity had been injected. The milk of any animal kept in confinement is slightly acid even when it leaves the udder, and as the blood will not tolerate the presence of an acid, it is not to be wondered at that very unpleasant symptoms often developed when milk in that state has been injected."

Dr. Abraham Jacobi, known as the founder of pediatrics, shared Meldon's perspective on the dangers of acidity and seems to have been one of the rare medical professionals to recognize that milk from grass-fed cows was "naturally alkaline." On the topic of IV milk transfusion (which he did not practice himself), a report summarizing comments by Jacobi noted:

> "One reason of the bad effect of milk injections, [Jacobi] thought, was that they might be acid; and he had found that cows were liable to have acid milk in their udders, due probably to their habits or food. It was important that the milk be tested with litmus before being used, as the injection must not only be not acid, but be alkaline."[23]

In one of Meldon's successful cases, he brought a goat directly into the bedroom of a patient with wasting disease who was bleeding from the lungs and expected to die; he did not allow the goat to be milked until the tube had been inserted into the patient's vein and he had tested the milk. When testing revealed the milk to be acidic, Meldon added ten grains of carbonate of ammonia to the ten ounces of milk before beginning transfusion. There were no side effects, and the patient "materially im-

proved." He began to recommend that carbonate of ammonia routinely be added to injected milk to ensure alkalinity.

In an analysis of twenty-two published cases of IV milk transfusion, Meldon grouped the cases into four categories, with the majority (82 percent) falling into the first two: (1) those in which the operation cured the disease; (2) those in which the operation prolonged life; (3) those in which the operation was productive of neither good nor evil; and (4) those in which the operation, in all probability, shortened life.

THE SOONER, THE BETTER

In an 1878 Philadelphia medical school lecture, a Dr. John H. Brinton compared blood transfusion and IV milk transfusion, recommending in either case that transfusion be "done early, and before the patient is in a moribund condition."[24] Citing the "great percentage of deaths" that blood transfusions of the era were causing, the "advantages claimed for milk" (such as the elimination of coagulation risks) and the probability of "excellent" outcomes when undertaking IV milk transfusions in a timely manner, Brinton favorably concluded:

> "As far as my own practice is concerned, I think that, in future, I shall try the intravenous injection of milk in preference to the transfusion of blood. I have transfused a great many patients. . . and my results have been very far from reassuring. I think the proposed intravenous injection of milk offers us much better results, judging from the cases published. . . . The main obstacle to complete cure. . . thus far has been the very late period of the disease at which the injection has been attempted. Though the exact rationale of the action of milk, thus introduced, upon the system has not been satisfactorily shown, I think this new operation will, in a few years, have entirely superseded the transfusion of blood."

DETERMINANTS OF SUCCESS

In response to the adverse effects observed by American and British practitioners, Meldon initially proposed that the symptoms could be mitigated by injecting no more than four ounces of milk at one time; a couple of years later, he revised his recommendation upward to no more than six ounces. Other IV milk proponents such as Thomas thought that no more than eight ounces of milk should be injected at one time. A German doctor argued that injection of large quantities of milk into animals "invariably led to the formation of pulmonary emboli."[14] On the other hand, Hodder uneventfully administered larger doses of milk to his cholera shed patients—including Harrison, who after receiving twelve ounces experienced clear and immediate improvement and no negative side effects.

The generally positive results obtained by Hodder and Meldon, on the one hand, versus the more problematic results of doctors like Hunter and Howe raise interesting questions about the variables that most influenced IV milk transfusion outcomes. Based on my reading of various case reports, I believe the most significant factors probably included:

- The type of disease treated
- The baseline condition of the patient
- Other factors related to their care (such as the concurrent administration of substances like silver nitrate, calomel, quinine and morphine)
- The amount of milk injected
- The way the milk was handled
- The amount of time that elapsed between milking and injection
- Factors specific to the practice of injection (e.g., sterility and equipment)
- The quality of the milk

Both ancient wisdom and modern science solidly confirm that milk from grass-fed cows is nutritionally superior and has more "life" and "health" than milk from grain-fed cows. Milk from grass-fed ruminants also has a higher pH,[25] which makes it more compatible with blood. Although the historical documents provide almost no information about the animals that supplied IV milk, we know that the Toronto cow who helped Harrison recover was "grazing close at hand," which means that the cow was eating grass at least on the day of the transfusion. Although this does not prove that the cow was 100 percent grass-fed in the prior weeks, considering Toronto's climate, geography and culture, it seems likely that in general, the area's cows were grass-fed, especially in the summer. At the time, Toronto had a population of just thirty thousand and was surrounded by forests and wilderness areas.

It is also worth mentioning that in the Toronto region, June and July are the rainiest months, and the first milk transfusion was on July 10. This would mean that the cow was probably eating fast-growing green grass, which has higher levels of chlorophyll, folate and other nutrients than grass during dry periods, making it ideal for the production of high-quality milk. The nutrient profile of milk from cows grazing on grass growing in poor soil or eating dry grass, hay or alfalfa will be lower.

As for the milk used by Meldon in his many successful cases, he wrote in 1881, "In any place, whether it be town or country, [milk] is easily procured within a few minutes, and with proper precautions the

operation is devoid of danger."[22] In the context of the Dublin of that era (with a population of around six hundred fifty-three thousand), we don't know what the quality of that "easily procured" milk might have been, especially because he also referred to "animals kept in confinement," but we do know that he preferred and "invariably used" goat's milk because it was "much more easy to bring that animal in close proximity to the patient, thus avoiding any unnecessary delay between milking and the injection."[22] We have all seen beautiful photos of Ireland's rolling green hills, so perhaps the local goats and cows had access to at least some grass and hay.

In 1870, New York City's population of nearly thirty-nine million was almost sixty times larger than that of Dublin. How did a city of that size provision its residents with milk when there was not yet refrigeration and the only forms of transportation were horses, railroads and boats? There were two options. The first was to keep cows and goats inside the city, but without large fields of green grass, the animals had to be kept in barns and stables and given external feed. The second option was to transport milk from dairy farms outside the city. However, dairy farming had already begun shifting away from the small family farm to bigger farms that kept cows in confinement and fed them an unnatural diet. In *The Raw Truth about Milk*,[26] William Campbell Douglass II, MD, says about nineteenth-century New York City:

> "Cows in the late 1800s were fed on garbage. The Commissioner of the New York State Health Department. . . reported that cows were milked in a mixture of manure and mud, dust, dirt, filth, and disease—germs were as much the total product that people drank as was the milk itself. On farms, pails that were used to carry slop to the pigs were also used to convey milk to human consumers."

When cows are grain- and soy-fed (sometimes supplemented by human food waste such as overripe fruit), deprived of access to clean water and sunshine, and milked and handled in unsanitary conditions, it stands to reason that the nutritional profile of the milk will be much lower. Although we don't have proof that the cows that supplied milk to Drs. Howe, Thomas and Hunter were not grass-fed, it seems unlikely. If we assume that the cows in 1850s Toronto provided the best milk, the goats and cows in 1870s Ireland offered the second-best milk and the cows in 1870s New York produced the worst milk, this fact matches up to the presence and severity of side effects and the success rate of the IV milk transfusions.

In the vast majority of milk injections, doctors in Canada, America and the UK seem to have preferred to use raw milk (then called "fresh milk"). This is evident in the case reports that describe cows and goats being milked on the spot. Boiled and strained milk appears to have been the exception rather than the rule, as in two of Meldon's successful cases when fresh milk was unavailable. A London surgeon wrote in 1885 that IV injections of both "fresh milk in small quantities, or of milk boiled after standing" were "harmless" but warned, "it is most dangerous to employ ordinary milk not so boiled, and the ordinary London milk is especially deleterious."[15] In an 1899 paper objecting to the practice of boiling milk, the author noted that boiled milk had significant nutritional disadvantages: "The continuous use of milk sterilized by heat by infants leads to a large number of cases of impaired digestion and nutrition, anemia, rhachitis and scurvy, and in any case a predisposition to any and all infections."[27]

THE DECLINE OF IV MILK TRANSFUSIONS

Interest in IV milk transfusions seems to have declined in the 1880s, with the last major article published in 1885. My research suggests that physicians abandoned the practice prematurely, never allowing it to reach its full potential. Any new procedure needs an adequate trial-and-error phase before it is perfected, and IV milk injections do not appear to have received a fair trial. That is too bad, because IV milk transfusions may have offered unique benefits not provided by saline solutions or blood transfusions, including immune system support and the ability to cure severe diarrhea.

The rising popularity of isotonic saline solutions was probably the main reason that physicians lost interest in IV milk (and they likely assumed that saline solutions offered benefits equivalent to IV milk injections), but there were also other reasons:

- Dr. Thomas described "violent prejudice and opposition in the mind of the hearer," and Dr. Meldon noted that some objected that milk was "unphysiological"; apparently, the idea of injecting milk into the blood just didn't sound right to some doctors.
- When poor-quality milk was used, the serious side effects and failures that resulted gave the procedure a bad name.
- Physicians considered milk to be a blood substitute, but it wasn't.
- IV milk was less convenient.
- As the medical community became more aware of the dangers of contaminated milk (due to unsavory industrial dairy practices), doctors became less willing to consider IV milk injections.
- Toward the end of the nineteenth century, scientists discovered that fresh milk was

not sterile but contained live bacteria. This, too, would have make doctors less open to injecting milk.

On the other hand, the physicians who witnessed successful outcomes remained IV milk proponents. Meldon frankly stated, for example, "I have made up my mind that I will not allow any patients under my care to die of exhaustion without an attempt to save them by the intravenous injection of milk."[28]

FINAL WORDS

Dr. Hodder may have been wrong in some of his assumptions about the similarities between blood and milk, but he was correct to assume that milk, like blood, had "life." As Dr. Weston A. Price once documented, the isolated residents of the Swiss Alps knew all about the "life" in milk and had rituals to honor and celebrate the life in milk and butter when cows were eating fast-growing summer grass. The Maasai, too, knew about the life in milk and insisted that would-be parents (both mothers- and fathers-to-be) drink the milk of cows eating the fast-growing green grass of springtime. Dr. Price transformed the lives of some poor and malnourished students in America with nutrition that included "high-vitamin butter."

When modern man began to ignore this wisdom and started embracing "modern" farming techniques, he encountered "death" in the milk. Uncaring industrial dairies and greedy businessmen took advantage of the desire for cheap milk and produced contaminated products that, sadly, often killed babies. When pasteurization became the norm, it may have solved these overt problems of contamination, but it also ensured that there would no longer be any "life" or "health" in the milk. Even if we no longer inject milk, we need good, healthy raw milk, butter and cheese from pastured cows and goats eating healthy, species-appropriate food. This allows milk to remain one of nature's most perfect foods, with superior nutrition and amazing healing and health-giving properties.

Joe Anstett was born in the USA, but a trip to Peru in 2003 changed his life. He now lives in Peru with his Peruvian wife (Ruth) and a 15-year-old son (David). In his early life, Joe would experience severe fatigue and brain fog except after eating a really good meal. This led him on a lifelong quest to find answers, many of which came from the works of Dr. Weston A. Price. Joe currently writes a blog on the health benefits of strontium (a mineral similar to calcium) and its potential benefits to inflammation, mitochondria problems and chronic pain. joeanstett.substack.com.

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REAL MILK UPDATES by Pete Kennedy, Esq.

FEDERAL - SHOULD THE INTERSTATE RAW MILK BAN BE OVERTURNED?

With President Trump's nomination of Robert F. Kennedy, Jr. to be Secretary of Health and Human Services (HHS) and his subsequent confirmation, raw milk has been in the news. RFK Jr. has stated that there should be increased access for Americans to raw milk. Since 1987, there has been a federal prohibition on shipping raw milk across state lines for human consumption and interstate commerce; the U.S. Food and Drug Administration (FDA), the agency within HHS that has jurisdiction over raw milk, issued a regulation establishing the ban.

A question that has come up is: with RFK Jr. in power, is now the time for Congress to pass a law repealing the ban? The FDA established the ban in response to an order from a D.C. federal district court in the 1986 case of Heckler v. Public Citizen. The only raw dairy product currently legal in interstate commerce is cheese aged sixty days; FDA treatment of raw cheesemakers shows the risks involved with lifting the ban and giving FDA complete jurisdiction over any raw dairy product crossing state lines—whereas the FDA does not exercise jurisdiction over dairy products in intrastate commerce.

In 2019, University of Vermont Professor Catherine Donnelly wrote *Ending the War on Artisan Cheese*, a book detailing the FDA's harassment of raw cheese producers. One of the examples she provides is related to harassment of cheesemakers who attended an October 2013 workshop in Georgia titled "Food Safety and Hygiene in Artisan/Farmstead Cheese-Making," which was cosponsored by the Georgia Department of Agriculture, the Innovation Center for U.S. Dairy and Whole Foods. The workshop was designed for small-scale cheesemakers and also included invitations to federal and state inspectors—the thought being that many of the inspectors were "not always knowledgeable about artisan cheesemaking." However, just one day after the workshop, the FDA inspected every single artisan cheesemaker (as well as the two Whole Foods stores that attended the workshop), resulting in detention of some products. As Donnelly states, "The notion that attendance at, or sponsorship of, an education workshop could subject an artisan cheesemaker or cheesemonger to regulatory enforcement defeated the very purpose for which those workshops were intended."

The American Cheese Society (ACS) is the leading organization in the U.S. supporting the promotion of artisan, farmstead and family cheeses. As Donnelly explains it, "Attendees at the American Cheese Society began to notice some interesting connections between the dates when the annual ACS meetings were occurring and the timing of FDA recall announcements and unannounced visits to their establishments. Cheesemakers would lament that they were unable to bring the quality assurance members of the organization to the ACS annual meetings because it became a matter of routine that unannounced inspections from the FDA occurred during the ACS meetings.

FDA officers would take cheese from producers for "microbiological compliance sampling" which then requires cheesemakers to "withhold the production lots being tested from distribution into commerce until results of the FDA's analysis were returned." Affected companies noticed a pattern: many times results were released only after the products had reached the end of their sell-by dates. And in most cases, the tested products met compliance criteria. They were salable products that fully complied with regulations, but they could not be sold because of regulatory targeting and testing of these goods.

In 2009-2010, FDA changed the tolerance level of generic *E. coli* in raw milk cheese from ten thousand colony forming units per gram of cheese (cfu/g) to ten Most Probable Number (MPN) per gram in two or more subsamples or greater than one hundred MPN in one or more subsamples. The European Union has established a generic *E. coli* tolerance level only for pasteurized cheese. The new tolerance levels effectively prohibited artisans from being able to release significant amounts of product into commerce. Extensive sampling by FDA from 2004 to 2006 before the new requirements went into effect showed that about 70 percent of the cheese tested then would not have met the new standard. There is no scientific evidence that these standards lead to safe cheese. Thanks to political pressure, FDA finally halted using the 100/10 MPN standards in 2016.

There is little evidence that FDA has changed its position on raw dairy since the publication of Donnelly's book. RFK Jr. and FDA Commissioner Marty Makary are going to have a big challenge changing the FDA culture on raw dairy. Any law Congress passes to overturn the ban should limit FDA discretion in interpreting the law and FDA's rule-making power as much as possible.

There are currently forty-seven states that—by statute, regulation or policy—have either legalized milk sales for human consumption, raw milk sales for pet consumption or the distribution of raw milk through herdshare agreements. State legislatures and agencies have eroded the effect of the ban one state at a time.

That said, with greater consumer demand for raw milk than ever before, there are not enough producers or cows to meet that demand. There is a need for many states where sales or distribution are legal to pass more favorable laws bringing more producers on line. Overturning the interstate ban can help make this happen, depending on how tightly Congress controls FDA with the legislation and how much the anti-raw milk bias at the agency changes.

Two sources of additional farmers to meet the unprecedented demand for raw milk are Grade A dairies and homesteaders. Grade A dairies have been the drivers in recent legislation in Delaware and Georgia legalizing the sale of raw milk for human consumption; however, considering the decline in the number of conventional dairy farms in the U.S., not that many Grade A dairies have transitioned to selling raw milk for direct consumption. More farms will start selling raw milk commercially in the homestead community; many homesteaders with a family cow often have excess milk beyond their own family's needs, leading them to sell raw milk to others in their community. The number of homesteaders in the dairy business increases if they can sell raw milk and other raw dairy products direct to the consumer without regulation. Small-scale dairies generally have a good track record for safety whether or not they are regulated; if there is a problem, raw milk is typically an easily traceable food.

Rather than lifting the ban immediately, there are a number of smaller steps that could be taken at the federal and state levels to improve the regulatory climate to the point where it would be more feasible to end the interstate prohibition with less risk of a backlash against raw milk by FDA. Among such steps could be:

1. Repeal Section 9 of PMO—PMO Amend the Pasteurized Milk Ordinance (PMO); this is a document governing the production and distribution of raw milk for pasteurization. Every state has adopted either part or all of the PMO; Section 9 states that only pasteurized milk should be sold to the final consumer, restaurants, grocery stores, etc. The PMO is revised every two years; the revision starts at the biannual National Conference on Interstate Milk Shipments (NCIMS, most recently in April 2025). FDA works on the revisions with other stakeholders; my understanding is that the FDA has final say on any revisions. If a state passes a law on raw milk sales for human consumption, that law controls over the state's adoption of Section 9 in the PMO. Removing Section 9 from the PMO would help change the culture of anti-raw milk bias that exists at FDA and state agencies; it would increase the chances of expanding raw milk access in the forty states currently allowing raw milk sales or distribution through law or policy. Also, it would improve the prospects for legalizing the sales of raw milk for human consumption in the remaining ten states that otherwise ban it.

2. Amend FDA Food Code—The FDA Food Code governs food establishments, defined as any operation that "stores, prepares, packages, serves, vends food directly to the CONSUMER, or otherwise provides FOOD for human consumption" including restaurants and markets. Just about all states have adopted all or part of the Food Code. States can adopt regulations that are either more or less strict than the Food Code provisions. FDA works with USDA, among other stakeholders, in drafting revisions of the Food Code; it's usually revised every three or four years (the last update was 2022, fda.gov/food/hfp-constituent-updates/fda-releases-supplement-2022-food-code). The current revision states that "Fluid and dry milk and milk products shall be obtained pasteurized and… comply with GRADE A STANDARDS as specified by LAW." The next revision of the Code should remove these provisions. Only about a quarter of the states allow sales of raw milk in restaurants. Removing these provisions would reduce bias by regulators against raw milk and should increase raw milk access.

3. Redirect Dairy Checkoff Program funding—Have funding from the dairy checkoff program which the National Dairy Council receives (USDA-AMS has oversight) go toward promoting raw dairy—starting with raw cheese would be good since its sale is legal in all fifty states.

4. U.S. Dairy Innovation Centers—Have the four U.S. dairy innovation centers which receive funding from USDA-AMS award grants to dairy businesses that produce raw dairy; remove the current prohibition. Awards have been used for technical assistance, health and safety training, marketing strategies, etc.

5. Testifying on State Raw Milk Bills—Have RFK Jr or FDA Dairy Chief testify in favor of state bills legalizing raw milk sales, distribution or expanding raw milk access. John Sheehan used to submit testimony opposing raw milk bills.

6. Standard of Identity—Issue standard of identity regulation for specific types of raw cheese with less than sixty-day aging requirements.
7. Reducing Federal Pressure Against Raw Milk Law and Policy—Find areas where a state's raw milk laws or policy affect its funding or rating with the federal government (such as, possibly, NCIMS state rating for compliance with PMO) and change policy so there is no longer any effect.
8. Dairy Co-op Prohibitions—Make dairy co-op prohibitions on co-op members distributing raw milk for direct human consumption illegal.
9. FDA Interstate Raw Milk Ban—Adopt policy that FDA will only take enforcement action against those transporting raw dairy directly to consumers for human consumption if there is evidence that the product is either adulterated or misbranded. Cease from interpreting the Public Health Service Act to regard raw dairy as a "communicable disease" per se. Current policy leaves enforcement open against food buyers clubs and farmers; FDA does not enforce the ban against individual consumers crossing state lines to obtain raw dairy for their own consumption.
10. FDA's "For Consumers" Webpage—Publish information on the FDA website about raw milk safe handling. Excerpts can be taken from Peg Beals' book, *Caring for Fresh Milk*, and FDA can publicize this booklet on its website homepage. A statement could read: "FDA recognizes the consumer demand that exists for raw milk; consumers who drink it should follow these guidelines." See fda.gov/food/resources-you-food/raw-milk

RFK Jr. faces the challenge of changing the culture on raw milk in FDA and ending the fearmongering about the product, but there will never be a better time to do so than now, with him in charge of HHS. This factor combined with the current demand for raw milk and the insufficient supply point toward an attempt to relax or overturn the ban during the Trump administration.

2025 STATE LEGISLATION

Three states passed raw milk bills this session; two expanded raw dairy access and the third gave more due process protections to dairy farmers in the event of a government investigation. The states with the new laws are:

ARKANSAS - Current law limits sales to on-farm with a cap on volume of five hundred gallons per month. Senate Bill 464 (SB 464) represents a major breakthrough for producers and consumers in the state. There is no longer a cap on sales, and producers can now sell any other raw dairy product as well; sales of raw dairy, in addition to on-farm, are now legal at a farmers market, at a "natural food store" or via delivery from the farm where the milk is produced. There are refrigeration, signage and labeling requirements; both signs and labels are required to contain the following statement: "This product sold for personal use and not for resale, is fresh whole milk that has not been pasteurized. Neither this farm nor the milk sold by this farm has been inspected by the state of Arkansas. The consumer assumes all liability for health issues that may result from the consumption of this product."

NORTH DAKOTA - In its last session the legislature legalized the sale of raw milk direct to the consumer. Effective August 1, House Bill 1131 (HB 1131) expands on that to include the direct-to-consumer sale of any raw dairy product. The only requirement in the bill is that a farm selling raw milk or raw milk products shall label the products as "raw milk" or "made with raw milk."

UTAH - In 2023 an investigation by the Utah Department of Agriculture and Food (UDAF) into a suspected foodborne illness outbreak resulted in a suspension that nearly put the largest raw milk producer in Utah out of business. The investigation was characterized by the producer being in the dark as to what his rights were in getting his permit reinstated, and what the legal authority of UDAF actually was. In response, the legislature passed House Bill 414 (HB 414), legislation that provides greater due process protections on matters such as testing, reissuing a suspended permit and the issuance of a cease-and-desist order. The legislation marks the fifth raw milk bill that the mother-daughter team of Symbria and Sara Patterson has been responsible for passing; the Pattersons are the founders of

Red Acre Center, a nonprofit that has been the driving force behind the development of one of the most favorable regulatory climates for local food in the country.

NORTH CAROLINA - N.C. FARM BILL

It has been a long time since a state has tried to roll back the clock and ban or restrict raw milk access, but that is now happening in North Carolina, primarily due to one individual, Agriculture Commissioner Steve Troxler. Through his allies in the legislature, Troxler was able to get a section in Senate Bill 639 (SB 639), also known as the North Carolina Farm Bill, that would have banned the distribution of raw milk through herdshare agreements; under current law, both herdshares and raw pet milk sales are legal.

In pushing for the ban, Troxler tried to scare the public about the dangers of bird flu by saying, "We've been playing Russian Roulette with one bullet in the chamber, with these other pathogens. But when you add [bird flu] into the mix, we put two more bullets into that chamber."[1] Bird flu is a respiratory, not gastrointestinal, illness (that is, the mode of transmission is the respiratory tract, not the digestive tract); there is no evidence that bird flu in raw milk or any other type of flu in raw milk has ever made anyone sick.

The outcry against the herdshare ban was so great that the Senate Agriculture, Energy, and Environment Committee took it out of the bill but, with pressure from Troxler, then substituted an amendment with a ban on pet milk sales. A number of micro dairies in the state rely on income from selling pet milk. The pushback against banning pet milk was great as well; as of the beginning of June, the full Senate had not voted on SB 639.

The NC Farm Bill is one of the worst pieces of legislation in memory. SB 639 also contained sections establishing a liability shield for pesticide manufacturers and giving the North Carolina Department of Agriculture and Consumer Services law enforcement powers that extended far beyond its current jurisdiction.

There was also a provision for a study on "the advisability of allowing the dispensing of raw milk via herd arrangements, and the retail sale of raw milk and raw milk products"—a possible lever to reintroducing legislation restricting or banning raw milk next year if nothing passes in 2025.

Thanks to effective opposition from farmers, consumers and advocacy groups, there was growing hope that the NC Farm Bill would not pass out of the legislature this session.[1]

1. *The Regenaissance*. (2025, May 15). North Carolina's Raw Milk Rebellion: Consumer Demand Forces a Legislative U-Turn. https://theregenaissance.news/p/north-carolinas-raw-milk-rebellion.

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.
Summer 2019	Rancidity Testing of Cod Liver Oil; Getting Informed about 5G; The Ketogenic Diet; Ukraine's Traditional Foods.
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.

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.

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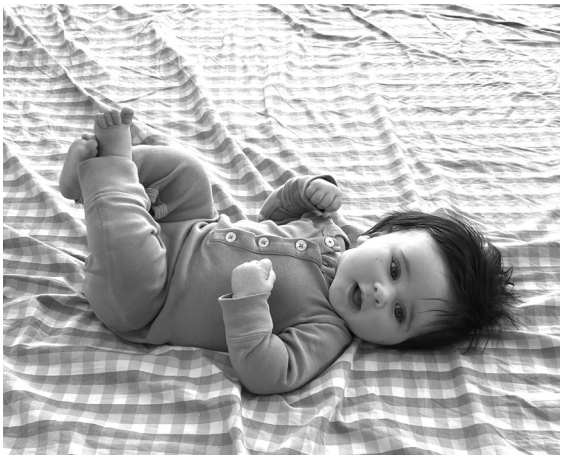
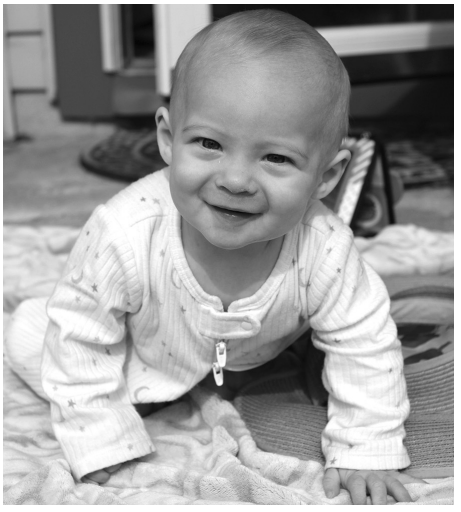
Healthy Baby Gallery



Vera was born in November 2024 with thick, luscious black hair, weighing nine pounds, seven ounces—almost two pounds more than her two older brothers weighed at birth. Her thirty-five-year-old mom, on a Wise Traditions diet for the previous two years, gave birth naturally, with a very easy delivery and recovery. Before and during pregnancy, mom consumed daily cod liver oil, raw milk and liver, as well as abundant eggs from their backyard flock and fermented sourdough and kimchi. As for Vera, even more remarkable than her beauty and heft is her temperament. She was alert and interactive, making eye contact by following sound on day four! She rarely cries and began sleeping through the night at three months. Mom feels confident that so much dense nutrition will help her conceive and grow more babies.

Levi was born healthy in August 2024, weighing just over seven pounds in a home birth. His first foods were egg yolk and avocado; he is now eating steak! The family followed the Wise Traditions dietary guidance throughout pregnancy and in the introduction of solid foods and believes it has helped lead to a very happy and healthy baby. Everyone says Levi's temperament is amazing—a testament to no vaccines, natural birth, good breastmilk and first foods. The family also loves their local WAPF chapter.



Moses, now age ten, whose story was first submitted in 2014, continues in the traditional way of eating like his parents and one-year-old sister, Amelia Mae. Grass-fed butter, bone broth, ferments, pastured eggs and wild game organs and meat are his choice favorites. He's known as an even-tempered, friendly child who enjoys relationships formed with old and young alike. AmeliaMae, too, has been a delight to raise. She brings so much joy to others wherever she goes. Despite having inherited genes for celiac and MTHFR, the diet and homeschooled lifestyle of both youngsters have greatly contributed to their well-being and unusual good health. They play like the best of friends in spite of the age difference. Thank you for helping us to spread the many blessings of the traditional foods diet!

Teen Gallery: *We will include photos of teens who have been raised according to WAPF principles and experience good health. If you want to share a photo of your teen whose good health you attribute to these principles, 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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JUNEAU, ALASKA

Despite soggy rain, gusting wind and temperatures in the mid-forties, the Juneau Maritime Festival offered an opportunity for great outreach success. Most attendees had never heard of WAPF but seemed interested.

Pictured: Howard Beery, with son Ryan and daughter Karinne.

Not pictured: Maen Wolf, who was a huge help at the booth for the all-day event.

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PASCO/HERNANDO and CITRUS/MARION, FLORIDA

The two chapters held a joint event featuring Aaron Miller of Miller's Bio Farm. Aaron brought his delicious A2/A2 milk, ice cream, yogurt, cookies and three types of salami for a tasting. About twenty people attended, and everyone had a fun and filling time.

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OCONEE COUNTY, GEORGIA

The chapter has hit the ground running! Just before it started up, chapter leader Diana Anderson learned that her community's raw milk provider was retiring. At realmilk.com, she found Willowdale Fresh Dairy about forty minutes away. Owner Ben Brubaker was interested in stepping in to fill the need. After Ben acquired two more Jerseys in Indiana, Diana picked up her first thirty-three gallons of A2/A2 raw milk for her community! Luckily, the retired raw milk provider, who continues to provide beef and sausage, is willing to sell Ben's milk to the previous raw milk customers. Diana now picks up milk every Tuesday and Friday, and the customer base is growing as customers discover the high quality of Ben's milk.

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BRUNSWICK, GEORGIA

The chapter enjoyed a springtime potluck picnic and tour of a local mushroom farm.

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UPPER VALLEY, NEW HAMPSHIRE/VERMONT

At their spring meeting, chapter members enjoyed a delicious potluck spread that included homemade sourdough breads, butter, beef heart, fresh salad, pork, soups, pie and kombucha. Twenty people of all ages attended, including some who were new to chapter meetings. Everyone enjoyed connecting with like-minded people, sharing resources and eating nourishing food.

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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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CHATTANOOGA, TENNESSEE

At the chapter's February meeting, WAPF member Spencer Clanin provided an "All Things Chicken" class, showing how to cut up a whole chicken, how to make good wings, ways to cook chicken, what to do after the chicken is deboned (the group made chicken salad) and how to make broth. A great time was had by all!

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CHATTANOOGA, TENNESSEE

The chapter hosted a taco night for its Spring meeting. Attendees, young and old, helped to make dough balls to put in a press to make tortillas.

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HOUSTON, TEXAS

The chapter had a talk about the GAPS did and did a demo on how to break down a chicken for stock.

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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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Otago Region: Tracey Pita +64 22 5002292, tracey@rawandreal.co
Hawkes Bay: Phyllis Tichinin +(64 27) 4651906 phyllis@truehealth.co.nz
South Canterbury: Carol Keelty +03 6866 277 bckeelty@outlook.com
NZ Resource List: Deb Gully deb@frot.co.nz wapfwellington.org.nz

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Brodnica: Adam Smiarowski +1 01148606209914 szkolarycerska@gmail.com

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Lisboa and Beira Baixa: Duarte Martins duarteccmartins@gmail.com

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South Africa: Eastern Cape: Lowell Vickers +27 76 387 4872, lhv777@gmail.com

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Marbella: Svetlana Lotman +447931581002, contact@dynamize.co

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Neuchatel: Ann-Sophie Clerc 41 79 128 22 17, asclerc.gaps@gmail.com

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Surrey and Hampshire: Diana Boskma +44 1252 510 935 dboskma@gmail.com facebook.com/groups/336421596766813/
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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

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IN

DEVON BEEF, 100% grass fed, no antibiotics, no growth hormones. Full cow, ½ 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 (512) 237-0742 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**.

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MI

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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.

Farm fresh brown eggs. Chickens are free range on organic pasture and are fed non-gmo feed. Verdant Lea Farm, 5320 Pre-emption Road, Dundee, New York 14837 Samuel: (607) 243-5816.

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OH
COPIA FARM, Dan & Caitlin, Short drive from Columbus, Johnstown Ohio. Farm store open daily, 9 am-7 pm. Raw milk 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
Chilly Creek Farm produces 100% grassfed A2/A2 raw milk products, grassfed beef, veal, lamb, soy-free mangalitza pork, raw pet food, bone broth, organs, corn- and soy-free eggs. Mon-Sat 9am-3pm. WE SHIP 409 Ants Hill Road, Bloomsburg, PA 17815.

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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.

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Pastured duck and quail eggs free from soy and chemicals at Quackin' Egg Hollow, New Holland, PA. We now offer organic sorghum and millet, sprouted flour and all-purpose flour mixes. **We ship.** Call or text (717) 656-0423. beyondglutenfreemicheles mixins.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
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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.

Crafts & Clothing

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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

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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

Northern Michigan small grass-fed beef operation for sale; cattle and equipment. Could lease pastures for the rest of this year. Call Bob (231) 649-1122.

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 outbuildings. 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.

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.

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.

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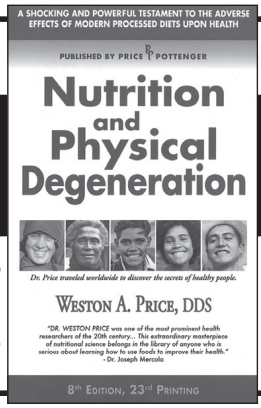

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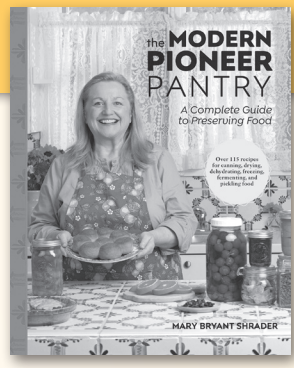

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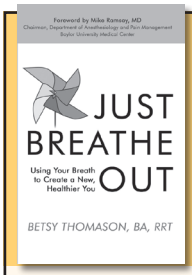

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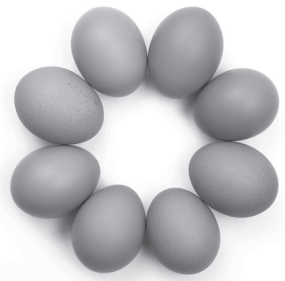

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Membership

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Yes! I would like to become a member or renew my membership in the Weston A. Price Foundation and benefit from the timely information in **WiseTraditions**, the Foundation's quarterly magazine!

_____U.S. membership $40
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Yes! I would like to support the work of the Weston A. Price Foundation with an additional donation.

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Yes! **Count me in!** I would like to help spread the word!
Please send me_____copies of the Weston A. Price Foundation informational brochure at $1.00 each, so I can pass them along to my family, friends and colleagues, and be true to Dr. Price's dying words:
"You teach, you teach, you teach!"
(Health professionals are encouraged to provide this brochure to their patients.)

Yes! I would like to provide my family and friends with the gift of membership in the Weston A. Price Foundation.
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PMB #106-380 4200 Wisconsin Avenue, NW Washington, DC 20016
PHONE: (703) 820-3333 FAX: (571) 777-8932

Calendar

2025

JULY 25-26 **GAP, PA:** Family Day at the Farm featuring Sally Fallon Morell 5 - 8:30 PM Friday evening and also on Saturday. Ely Stoltzfus Farm, 362 School Lane Road. Donation at the door.

AUGUST 4-5 **SAN MARCOS, TX:** Southern Family Farmers and Food Systems Conference featuring over 50 speakers. **CONTACT:** southernfamilyfarmersconference.org.

25th WISE TRADITIONS CONFERENCE

Salt Lake City, Utah

October 17-19, 2025

Drs. Mark and Samantha Bailey, Nina Teicholz, Gerald Pollack, Lee Merritt, Mike Keen, Adam & Josh Bigelsen, Thomas Lokensgard, Manel Ballester, Judith McGeary, Tom Cowan, MD and Sally Fallon Morell *and others!*

wisetraditions.org

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TRUTH IN LABELING
LIFE-GIVING WATER
NURTURING THERAPIES

You teach, you teach, you teach!
Last words of Dr. Weston A. Price, January 23, 1948

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