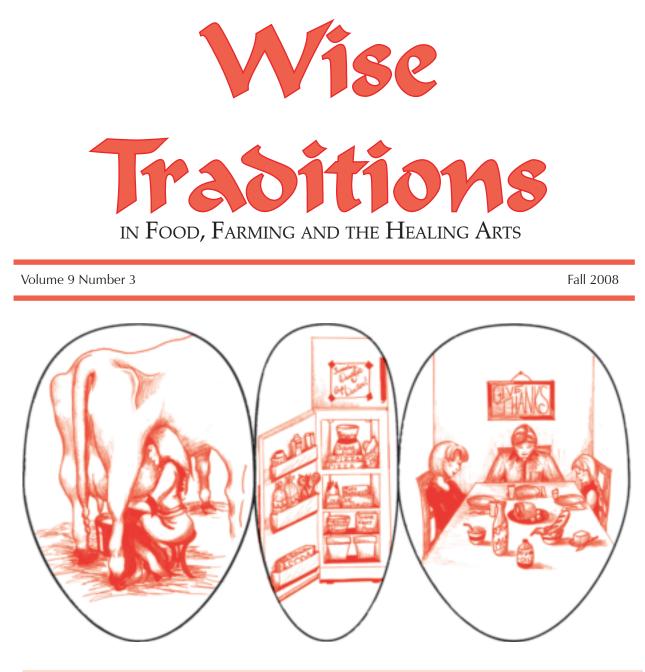
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LIFE-GIVING WATER

PASTURE-FED LIVESTOCK

A CAMPAIGN FOR REAL MILK



Healthy Eating on a Budget A Healthy School Lunch Program Setting up a Local Food Club Healthy Family Eating Joel Salatin Testimony Reply to the Margarine Manufacturers Analysis of Raw Milk Illness Reports

> A PUBLICATION OF THE WESTON A. PRICE FOUNDATION[®]

> > Education • Research • Activism

TECHNOLOGY AS SERVANT

SCIENCE AS COUNSELOR

SOY ALERT!

KNOWLEDGE AS GUIDE

WiseTraditions

in Food, Farming and the Healing Arts Volume 9 Number 2 Fall 2008

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THE WESTON A. PRICE

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

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

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

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



Volume 9 Number Three

A PUBLICATION OF

THE WESTON A. PRICE FOUNDATION®

Fall 2008

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THE WESTON A. PRICE FOUNDATION[®]

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President's Message

"I can't afford healthy food!" That's what we often hear when presenting information on healthy traditional diets. Or, "I don't have time," or "It's not practical."

In this issue we address these concerns with several plans developed by individual members who have faced this common challenge. From buying clubs that connect consumers to grass-based farmers, to mothers crafting healthy meals their children will actually eat, much thought and wisdom has been applied to the challenge of providing healthy food in the modern world.

The big surprise is the revelation that with careful planning, you can actually *save* money by eating high-quality food—not just in medical and dental care but in the actual amount spent on food. As Anne Sergeant, author of our lead article on food costs, puts it, "We can't afford *not* to eat healthy food!" If you total up the cost of *everything* eaten on a standard American diet, and add to it the additional burden of health care, missed days at work, reduced productivity, etc., etc., we come to the inevitable conclusion that cheap food is very expensive indeed.

What health-conscious consumers need to spend more time on is planning—actually thinking about what they will eat, where to obtain it, and when they will cook it—and then, of course, in the kitchen preparing nutritious meals. Sadly, for many people, eating is a completely unconscious activity. Most have only the vaguest perception of the cause-and-effect relationship of diet to health and so float through life consuming whatever fast and convenient food is available at the moment. . . and then bemoan their unjust fate when illness appears.

Fortunately, more and more people are making that connection, and we hope that they will find this issue useful as they learn to focus on healthy food, find local sources, and develop shopping and food preparation routines. Usually that task falls on the shoulders of moms, but as you will see in this issue, even guys with full-time jobs can, with careful planning, eat delicious and nutritious meals every day in their workplace.

The challenge of healthy eating may seem daunting at first, but as many of us can affirm, it soon becomes second nature. Fortunately, as healthy eating becomes a habit, we find that we actually develop an aversion to processed food. And once we grasp the cause-and-effect connection between bad food and poor health, we gain the motivation to make those initial efforts at dietary change.

We at WAPF are working busily on the upcoming conference, to ensure not only an excellent learning experience but also delicious and nutritious meals throughout. (For details, see page 38.) We look forward to seeing you there!

OUR FUTURE

I was reminded yesterday why we do what we do. I signed up for a cowshare. The farmers are a cute young couple, she is 26, he is 28. They are both from the city, she from D.C., he from L.A. They met in college, and fell in love with each other and with sustainable farming. After graduating with some very unrelated college degrees, they put everything they had into 22 acres of grass and some old, neglected

apple trees. In two years they have managed to build a house, greenhouse, and barn, all from the ground up, all from scratch, on a shoestring. Their entire income has come from selling truly organic fruit and vegetables, and they now have two cows as well. They also have two very young children. She was out working in the orchard with her baby on her back when I pulled up, dirt on both of their smiling faces.

To the uneducated, they

appear to live in poverty. Nothing is new, nothing is nice, and everything is lacking. But to me, I see nothing but hope, love and goodness. It's obvious that they put every single last dime that they can spare into building their little farm. Their joy is equally obvious. Their love for the land, for the plants and animals, for their sustainable lifestyle, for their family and each other, radiates from them. They are our hope and our future: young people who are willing to sacrifice all to maintain what is probably our most important piece of heritage. They are a bulwark against all that is wrong in our society. They are living and being the message.

They had never heard of the Farmto-Consumer Legal Defense Fund or National Animal Identification System, and didn't even seem to understand why they needed to have cow-shares. I suspect that they probably don't have a TV or access to the internet, or if they do that they haven't any time for such things. They were much too busy caring for and improving the land, and provid-



ing wholesome food for others.

A single rogue bureaucrat, another layer of invasive regulation, a government official having a bad day, could ruin everything for them. They don't understand the dangers that they face. They don't understand that there are people in this world who literally hate everything that they stand for, everything that they do, everything that they are. That type of hatred and illogical behavior does not register with people whose daily task is to nurture the good land. But we understand. And it's up to those of us who understand and care to do something about it, to protect them and fight for them even when they are unaware of this threat.

I was thrilled to be able to buy their milk and tomatoes. I would have paid triple. I even offered to milk their cows for them when they need time off. That seemed to really touch them, once the shock of realizing that there are lawyers in this world who can also milk cows wore off. But I feel very protective of these people, these new friends and busi-

ness partners. I feel that I have a duty to my own values, to what I stand for in life, to protect and nurture them, just as they protect and nurture the land, and nurture me with their food. I had a bowl of yogurt this morning, which I made last night with milk from their cow. Such a simple food, a nutritious medium teeming with millions of beneficial little organisms. If you create and protect the right environment, life will flourish. Yogurt makes itself. I want to do that for our farmers. Create and protect an environment where they

can flourish, nurture, and teach their children the values that they embody. They are our future.

> Marc Stimpert Hotchkiss, Colorado

Rather than send out our customary mid-year fundraising letter for WAPF, in August we sent a letter to all our members asking them to give financial support to the Farm-to-Consumer Legal Defense Fund or the Farm-to-Consumer Foundation. Legal support to defend our farmers is our most pressing need at the moment. Please be generous!

A PATIENT OF DR. PRICE

I was a patient of Dr. Price when I was a teenager. I had a tooth that was out of place and Dr. Price fitted orthodontics to move it back to where it belonged. I remember him as a pleasant bald man who was very kind to me. It was during the Depression, my mother was widowed, had lost her house, and we were living in an apartment. We couldn't afford to pay Dr. Price so he hired me at one dollar per hour (a very good wage in those days) to do filing and clean up his records. He kept fifty cents of it and I kept fifty cents of it. I am sure he never really got paid for the work.

Of course I got the lecture on nutrition and was told to take one tablespoon of cod liver oil per day. He gave me articles of his to read, which became part of *Nutrition and Physical Degeneration*.

> Charles Whitney St. Augustine, Florida

RECOVERING

In 2005, at the age of forty-nine, I was diagnosed with severe ankylosing spondylitis (arthritis in the spinal joints). I was also diagnosed with severe sacroileitis and I had a frozen shoulder. My rheumatologist said I would need anti-inflammatories for the rest of my life. I decided not to take the medication and to learn as much as I could to heal these conditions naturally. Fortunately, I had the support of friends and family.

I learned that a low starch diet helps. (See the London Diet at www. kickas.org.) I also learned that it was important to supplement my diet with boron. (See www.farcourt.co.uk/Arntra/ links.html.) ARNTRA is the Arthritis and Rheumatism Natural Therapy Research Association.

I learned about the Weston A. Price Foundation in May of 2007. The information has been extremely valuable. I have been following the Weston A. Price guidelines and my health has continued to improve. I am not completely well yet; however, I have made a great improvement and I do not need any medication. A big thank you to the WAPF for preserving and disseminating the information about traditional nutrition.

For inspiration I read the books by Norman Cousins, *Anatomy of an Illness* and *The Biology of Hope*.

> Michael Seymour Melbourne, Australia

NATURAL HISTORY

Last week I was visiting the Canadian Museum of Natural History with my kids. They have re-done the entrance to the Polar World exhibit and there is now a video playing when you walk into the exhibit. The video documents an Inuit town in eastern Canada, which has received a couple of visits from the museum's researchers, once in 1938 and again fairly recently. The video spent quite a bit of time documenting and discussing the issue of native foods versus modern processed foods for the people there.

As part of a special cultural education initiative in the Inuit schools, they are teaching the students how to process (butcher) native food sources. The older people in the town place a special emphasis on these native food sources, claiming that eating the new store-bought foods makes them weak and cold, and that their native foods help to warm their blood. The video mentioned that illnesses such as cardiovascular disease and diabetes are on the rise since more people have started eating store-bought foods, which is interesting in light of the fact that native Inuit diet is nearly entirely meat and fat, often eaten raw.

> Karen Wood-Campbell Pittsburgh, Pennsylvania

FORMULA FOR SUCCESS

Thanks so much for everything you do. The Weston A. Price Foundation has changed our lives in countless ways for the better. I am especially grateful for all the information on raw milk and raw milk infant formula. I could not produce enough milk and had to start supplementing with formula when my baby was four months old. Luckily, my great uncle (now in his eighties) sent me the link to the WAPF site, and I started making the homemade formula. Within two weeks on the raw milk formula, my daughter's persistent cradle cap disappeared.

> Ann Marie Michaels Los Angeles, California

FLAT FEET

My husband Reinhold (from Germany) and I have been living here in Costa Rica for more than 13 years and we are members of the Association of Organic Farmers of Turrialba (APOT for its Spanish acronym) which comprises about 250 small-farm families.

We are fortunate that he has had

the opportunity to help set up Turrialba's organic farmers' market more than four years ago, where every Saturday we sell organic full-fat yogurt, raw milk and cheese from our grass-fed, free-range Jersey cows. On our 25-acre farm we grow or raise organic chickens and eggs, coffee, bananas, pineapples, turmeric, ginger, oranges, cassava, malanga and

many other useful plants. We also make our own sourdough bread, kefir, sauerkraut and our own soap simply made of lard, lye and water to wash everything including hair. In the past we have organized summer camps and right now are setting up to offer nutritional retreats.

I am from Haiti and wanted to share with you the fact that the only girls in my school who had collapsed arches were those whose mothers had lived in the US for a period of time.

> Gina Baker Turrialba, Costa Rica

PROGRESS WITH WAPF DIET

I was in an accident ten years ago, rear-ended in a VW bus by a heavy-load semi-truck driver who fell asleep. I was given the diagnosis that I would never feel or move again below heart level complete paralysis. I practiced movement/breath/sound therapy for years and had a fairly healthy diet and used herbs, but until I integrated the principles of the Weston A. Price diet into my life, I made very little progress.

Now I have recovered normal use of my organs; partial feeling and muscular control in my lower body down to my toes, ability to feel temperature, touch and discomfort, etc. In addition, I don't have to visit the hospital at least twice a year with life-threatening ailments, as other paraplegics suffer regularly.

> Kristie Smith Olney, Illinois



ASSUMED INFERTILITY

Thank you for all of the hard work you do in communicating with members and lobbying for raw milk! I am a customer of Pennsylvania farmer Mark Nolt, and I have first-hand evidence that his work benefits our community.

I was a ten-year vegetarian mostly because I refused to eat meat from confined animals. About seven years into my vegetarianism, I got married, and my husband and I planned for a baby. I was in my late thirties and after two heartbreaking years, we assumed infertility and adopted our wonderful son Garrison from Guatemala.

When Garrison was about two years old, we all came down with an

upper respiratory infection that just wouldn't quit. A friend had been nudging your material under my nose, and because of this infection, I knew our diet had to change.

I jumped on eatwild.com and found three farms close to me that now provide us with all of our meat, eggs and dairy products. Within three months of

> consuming raw dairy products and grass-fed meats, I was pregnant. Unfortunately, we miscarried the first one, but within another year I was pregnant again. I continued my farm-based diet throughout the pregnancy, and Benjamin was born on August 5, 2007, healthy, strong and beautiful. He is already enjoying cod liver oil, homemade butter from raw cream and farm fresh yogurt. All of his food is homemade, and he enjoys the puréed grass-fed meats from the farms. He is truly

a Weston Price baby. And did I mention? He was born seven weeks before my 45th birthday!

> Holly Smith Carlisle, Pennsylvania

YELLOW FAT

I was interested in the letter about yellow fat color in your most recent issue. The vast majority of grassfed animals harvested at less than three years of age have white fat unless they have Jersey breeding in them. Just as Jerseys have yellow milkfat, they also have yellow bodyfat.

The prohibition against yellow fat was not to discriminate against grassfed animals in general but against older



animals, whose fat does indeed turn yellow, and against Jersey-crosses, which were considered inferior to beef breeds. Actually, Jersey beef is one of the most tender of all the breeds. It just will have yellow fat.

Grass-finished animals which have been correctly grazed at a high rate of gain—in excess of 1.6 pounds per day—will marble just like grainfed animals and some early maturing breeds, such as Angus, will actually

grade USDA Prime. These animals will be two years old, which is only slightly older than grainfed. Producing such beef requires a great amount of skill but it is being done all over the USA.

Prior to World War II, there was little market price or consumer discrimination against grassfed beef. Grassfed was eaten in the late spring, summer and fall and grainfed in the winter and early spring. Now with the advent of refrigeration and freezing, we can eat grassfed year around. Per-

sonally, I find a well-finished grassfed steak to be far superior in taste to the grainfed product, but I understand there are those who disagree. That's what makes a market.

> Allan Nation, Editor Stockman Grass Farmer Ridgeland, Mississippi

A GRAIN OF TRUTH We have been farming a long time, my husband all his life. He is very knowledgeable and finds it frankly insulting to have people who've read a book or attended a seminar tell him how they are raising their cow correctly on just grass. Then we watch as their animals get thinner and thinner, and sometimes die for the farmer's lack of common sense.

Corn is actually a grass. The grain ripens in the fall and provides the animals with extra fat, what we call



The healthy Kelsey family of Freeport, Illinois.

"condition," to withstand the cold of winter. The Bible says, "Muzzle not the ox that treadeth out the corn."

Yes, we believe in grassfed and we know that while eating rapidly growing green grass, cows produce the best balance of fats and some other factors. But just because people are recently aware of the fat-soluble vitamins and Dr. Price's Activator X doesn't negate the reality of winter. Perhaps the fat balance changes with the season because of a factor we haven't yet discovered.

Eileen Kelsey, Chapter Leader Freeport, Illinois

HARASSMENT

Recently I had occasion to speak with a dairy farmer who had been in the news and was the subject of harassment by the Pennsylvania Department of Agriculture. I learned that a family member had been harassed by telephone when

> her baby came down with salmonella poisoning. The rest of the family had eaten chicken from a fast food restaurant and had drunk raw milk from this particular farm yet only the baby became ill. The baby had not consumed either food but was on formula-not breast milk. not raw cow's milk, not store-bought cow's milk. Yet the daily harassment by phone from the Pennsylvania health department had brought the mother to near collapse as she tried to care for her several healthy

young children and this ill baby.

The health department tried to trick, cajole and bully her into saying that the baby could have or might have had some raw milk from this farm. Upon a call from the farmer asking them to contact the farm's lawyer instead of harassing the family, the department desisted. However, other farm clients were also harassed. One patient said he had not been able to get milk because

of an illness so he had not even had any raw milk in the house when he became ill with salmonella.

My experience with salmonella poisoning occurred when my own baby was about one year old. The state health nurse called me up and gave me a lecture on kitchen cleanliness and sanitation. When I told her that my family had been showing sheep that week at the farm show complex and had not had anything from my own kitchen that week, but that the baby had become deathly ill and near comatose 48 hours to the minute after consuming a hamburger all by herself at the local Burger King, I was informed that it didn't matter, they couldn't trace it to the restaurant so they would not even contact the restaurant to inform them of the fact. let alone inspect the establishment. Yet they told this farmer that the same salmonella strain was making all the affected people ill, and the farm must be the source since these folks were sometimes farm customers.

See the difference they make between a large corporate restaurant and a comparatively small farmer.

Name withheld

EAR CANDLING

I read with interest the letter from Alexis Morini from North Carolina (Summer 2008) regarding ear candling. She took issue with the Winter 2007 article, "Traditional Remedies for Childhood Illness" by Sarah Pope and states that the use of ear candles "…will truly clean out any excess wax."

I had an experience with ear candles that would lead me to agree with Sarah's position. My ears built up ear wax to the point where it affected my hearing. I started using ear candles to remedy the situation and as Alexis notes in her letter, I observed the accumulation of wax in the bottom of the ear candle and felt confident that I was improving my situation. My hearing returned to normal for several days but then I began to have difficulty again. This pattern went on for several weeks...I would have trouble hearing, I would use ear candles and my hearing improved, though temporarily.

This became frustrating so I conducted a test of the candles' effectiveness. I lit an ear candle and instead of placing it in my ear, I held it against my finger as it burned. After the candle burned down, inspection of the unburnt end revealed the same residues that I had thought were being pulled out of my ear by the vacuum the burning candle supposedly creates. Since my finger does not contain wax, I came to the following conclusions: the heat from the burning candle softened the ear wax enough to cause it to change shape, thus allowing for sound to get around the wax blockage on a temporary basis. The burning candle itself is not enough to pull wax from the ear and the wax that accumulates in the candle is from the candle itself and not from the ear (or finger) it is placed upon.

> Russ E. Conrad Middlebury, Vermont

The wax would have to be analyzed to determine whether the candle pulls wax from the ear. The volume of wax in the ear is small, so obviously not all the wax that ends up at the base of the ear candle comes from the ear. But it is possible that some comes from the ear and that you are a person who rapidly builds up wax, hence the return of your hearing problems so shortly after the ear candling.

VACCINATION COMPLICATIONS

In order for my thirteen-year-old son to attend Boy Scout camp, he was required to have a physical and had to be up to date on his vaccinations. He has been normally very healthy, in fact this was his first trip to the doctor in years.

He was given two vaccinations, the Meningococcal and the Tdap. I refused for him to have the other two that the pediatrician said he should have but were elective until school started. He was extremely sore at the injection site and within hours presented with headaches, body aches and fever; and by the next day he had these as well as feeling nauseated and hot, and he began to have body shakes that he could not control. When I reported problems to the pediatrician I was instructed to give him fever medication and unless his symptoms became violent, all he needed was rest.

On the fourth day, after a sleepless night and uncontrollable shaking I took him into the emergency room. There he had blood taken to check his white blood count, which they said was at an acceptable level. He was given Benadryl to control the shaking, and then sent home with the advice to continue fever medication and Benadryl as needed. They refused to believe that any of his problems were associated with the vaccination, claiming that it was more likely he picked up a "bug" at the doctor's of-



fice. His discharge papers showed that he was treated for headache and fever, with no mention of any vaccination. How can there be a realistic record of risks or complications if medical professionals refuse to recognize any related symptoms?

Since his recovery he has had several unprovoked outbursts, leaving me very worried that there will be more problems yet to come.

> Mary Olsen Tulsa, Oklahoma

Hopefully our diet, complete with cod liver oil, will prevent any recurrence. But your frightening story should serve as a warning to all mothers!

LEWIS AND CLARK

I'm an avid hiker and backpacker who enjoys reading about people who attempt to hike the entire Appalachian trail. The hikers who depend on high amounts of carbs for energy seem to get very sore body parts, especially knees and backs.

If you compare that diet approach with the food journal of the Lewis and Clark exploration, you will see a stark contrast. These early explorers depended on six to nine pounds of meat and fat (mainly from grass-fed buffalo) per day! They cherished the organ meats and the buffalo hump fat. As you read their journals, you never see any references to the soreness that afflicts the modern hikers.

Here's what I'd like to propose to your Foundation. Sponsor a hike of the Appalachian trail for which you have an experienced backpacker eat a traditional WAPF diet prior to and during the hike. You could have local chapters along the route as this hiker's support group to supply WAPF foods. Have a second experienced backpacker eat a modern diet prior to and during the hike. Then report the results in your journal!

> Mark W. Cusac Covington, Ohio

DIET IN OKINAWA

Regarding the diet in Okinawa, which you have discussed in your journal, my husband was stationed in Okinawa in the 1970s and he said the old timers there ate rice with fish, including dried and fermented fish, octopus, whale (which is very fatty), pork and some vegetables. Most of it was fried in lard, with the rice being used to soak up the excess fat and juices. In fact, he said an "old lady" befriended him and kept trying to get him to eat fish heads and rice. Being very adventurous, he ate that and many other unusual items—and liked them.

I also spent some time in Asia, and never found a shortage of fish and meats, while at the same time I never saw a soy product except soy sauce and a small amount of tofu, certainly not the extruded stuff everyone here eats while using their idea of the Asian diet as their justification.

One more side note: I live near Red Wing, Minnesota, which has a huge soy processing (refinery) plant on the edge of town. When they are cooking the soy, it smells so bad, we feel like vomiting. Just getting through the town fast enough to breathe fresh air is a challenge. I think the market for soy processed products would be greatly reduced if everyone eating it had to smell it being processed first!

> Janice Blair Red Wing, Minnesota

DISTURBING ISSUES

I found two things about the most recent (Summer 2008) issue disturbing—one is the idea that chemotherapy and radiation are examples of "heroic medicine" that should be avoided. Chemo and radiation are not proposed treatments for invented diseases, nor have they been clinically proven to be ineffective against cancer, which killed 7.9 million people in 2007. I'm not a cancer expert, but since radiation is the most effective treatment when a resection surgery isn't an option, and chemotherapy kills off cancer cells and prevents them from multiplying, it is irresponsible of WAPF to denigrate these treatments when they can and do save the lives of cancer patients.

My mom was diagnosed with pancreatic cancer in March of this year, and at first they told us that it had metastasized and was inoperable-but that radiation might shrink it enough to perform a Whipple procedure (which saves many lives every year). She would have gladly undergone radiation if it meant the possibility of being cured. The news that it had spread, however, came from a false positive test-thank goodness!-and it turned out the cancer was local and she could have a Whipple procedure. That resection procedure saved her life, and now she is undergoing chemotherapy to kill off any cancer cells that may have started to spread.

Yes, chemotherapy is aggressive, but she thinks of it as her SWAT team going in to kill the cancer that would otherwise probably come back and kill her—in the meantime it's making her sick and killing some healthy cells, but given the choice, we'll take it. When modern medicine offers us these life-saving measures, I'm not content to leave it up to nature or G-d. She had maybe five years if we did nothing; now she will live a normal life, and some reorganized plumbing from the Whipple and chemo for six months is a very small price to pay.

The second thing I found disturbing was the article about homeopathy. No studies—that is, double-blind, published, repeatable studies, the gold standard—have ever found homeopathic remedies effective beyond a placebo effect. And for good reason: the substances chosen for "like cures like" treatments are not based on reason or evidence, and even if they were effective in normal doses, they certainly aren't effective in the dilutions used in homeopathy, where not a single molecule of the original "curative" substance is normally present in the finished remedy.

WAPF fights the junk science used to vilify saturated fat and justify the use of statin drugs; it should likewise shun the junk science of homeopathy, lest the organization and magazine lose its scientific respectability. The studies surrounding saturated fat and cholesterol are mixed because there is much poor research regarding those issues, but the research is absolutely incontrovertible when it comes to homeopathy. You simply can't design a bad enough study to find homeopathy effective that can still pass the publishing test. Even given the low standards respectable medical journals have when it comes to accepting studies "proving" that saturated fat causes heart disease, you won't find a study proving that homeopathy cures disease.

The reason the homeopathy remedy boxes in the drug store say "no side effects" is because there is no active substance that could possibly cause any side effects! For effective symptom relief and curing disease, people should stick to traditional, proven herbal and natural medicine or conventional medicine—but for heaven's sake, call a spade a spade—homeopathic remedies are placebo treatments, and expensive ones, at that.

> Sarah Conte-Jacobs Corte Madera, California

The fact that cancer killed almost eight million people in 2007 indicates that chemotherapy and radiation are not the solution! And the proposition that we need medicinal "SWAT teams" to kill cancer cells while hoping that the body manages to survive the treatment is a perfect description of heroic medicine. The real test is to follow two groups in the same condition (often only those in "good" condition, or even with false positives for cancer, get chemo and radiation, thereby weighting the results towards these interventions), one getting chemo and/or radiation, the other doing nothing or doing alternative therapies, follow them for five to ten years and then see which ones are still alive. Your editor knows of one group where this was done (although the study was not published). Seven of eight ovarian cancer patients in the group had chemo and/or radiation; the remaining woman refused these treatments. After more than eight years, she is the only one still alive. I would urge your mother to look into alternatives involving diet and Iscador (mistletoe extract), which is being used in Europe and, according to numerous published studies, has had good success compared to heroic treatments. We will be exploring this topic in a future issue of Wise Traditions. As for homeopathy, your editor finds that it is the only treatment that gets rid of her poison ivy, (to which she is very sensitive) and it certainly is not expensive.

A BETTER UNDERSTANDING

"Traditional Remedies for Childhood Illness" by Sarah Pope (Winter, 2007) was excellent reading but I would like to respond to her comment that in her experience, homeopathic preparations were not very effective. I am a classical homeopathic practitioner and RN. Her lack of success with the remedy chosen is due to a possible lack of understanding of homeopathy, its philosophy and the remedies themselves. It is a common error to prescribe remedies according to the "disease," as allopathic medicine does, rather than prescribing on the individual's symptoms. A multitude of remedies could be used for whooping cough, but the remedy must match the individual's symptoms.

I recommend the book *Homeopathy: Beyond Flat Earth Medicine* by Timothy Dooley for a better understanding of homeopathy and to help clear



up misconceptions on how to use the remedies properly. When a homeopathic remedy is used accordingly, its results can be very dramatic.

Homeopathic philosophy fits very well with the *Wise Traditions* philosophies and with the many good suggestions given by Sarah Pope on childhood illness.

Linda Ronchetti, RN Classical Homeopathic Practitioner Aurora, Minnesota

ANOTHER UNNECESSARY INTERVENTION

I appreciate the informative article "Traditional Remedies for Childhood Illness" by Sarah Pope (Winter 2007). Among the unnecessary medical interventions listed on page 38 of that article, I would have liked to have seen circumcision also listed as harm to be avoided. Circumcision is extremely painful for the baby and it results in the loss of a natural, sensitive, and functional part of the body. Parents can become better informed about this issue from the National Organization of Circumcision Information Resource Centers. Website: www.nocirc.org.

> Joseph Heckman, PhD Monroe, New Jersey

HOOKED ON WISE TRADITIONS

No matter what other piece of literature has my attention at the time, whenever *Wise Traditions* arrives in the mail, the minute I take a peek inside,

I'm hooked until I finish it to the end, including all those ads. I was especially impressed by the clear, witty and gutsy style of the article by Karin Beringer under NAIS Update. And, I'm delighted that homeopathy will become a regular feature.

Thank you for increasingly offering articles that address the issue of difficulties with fat metabolism. Whether it's those years of a no-fat macrobiotic diet or mercury toxicity, many of us still have some work to do to benefit from the fat level prescribed as the Weston Price ideal.

> Lucille Balukian Wayne, Pennsylvania

SINBAD, AN ALLEGORY by Harvey J. Gardner

"Oh, Sinbad, you are a very lucky marmoset," his new master chortled while overseeing the loading of provisions aboard his sleek Pearson sloop. "The finest fruits and herbs just for you. Never has a monkey's palate been so indulged."

They sailed the South Atlantic, Sinbad feasting on mangoes and bananas, sweet sorghum leaves and sugar cane, swinging joyfully from lines and boom. But within a few short weeks he became less playful, more fussy. Although he ate, his appetite slackened. Before long, he was overtaken by melancholy and lethargy.

His master cried out in despair, "Sinbad, for the love of God, please eat this fine ripe casava slice," tendering the sweet fruit under Sinbad's nose. Wearily the sad monkey took a perfunctory lick, then pushed it aside.

His mood and health worsened. Listlessness, apathy, depression overtook the once spry little fellow. When it appeared that Sinbad was near to dying his master hastily put into port to seek someone who might restore health to his beloved companion.

As the vessel slid into the slip and the hawser made tight to the mooring post a bold tropical cockroach clambered up the post, sped along the sisal line and flopped onto the deck. As he fell, the tap of his hard shell caught Sinbad's ear, and in a most unexpected maneuver the sweet faced marmoset leapt upon the darting insect, lifted it with both hands, and, with great gusto, bit off its head.

As he eagerly munched on this seeming unusual prize, the once-lost gleam returned to Sinbad's eyes. In virtually no time at all, he was again himself.

Moral: Unless you are a little monkey in captivity, don't wait for others to figure out what you really need to be nourished.

COOKWARE DILEMMA

The article "Mad as a Hatter: How to Avoid Toxic Metals and Clear them from the Body" by Drs. Kaayla Daniel and Galen Knight (Summer 2008) has me in a panic. Should I throw out all my expensive stainless steel pans? And if so, what should I cook in? Beth Verity, Madison, Wisconsin

Dr. Daniel replies:

We've had an overwhelming number of questions about this, and we wish we had a simple answer. Pots and pans of aluminum, Teflon and other non-stick surfaces—with the possible exception of an unblemished silicon ceramic—should be thrown out immediately. So should old stainless pots that have been scratched and pitted from use. High-end stainless products are widely advertised as risk free. However, only the 316 grade (as in the Saladmaster brand) is resistant to tomato juice and vinegar; but it can corrode with citric acid or salt. In terms of water bottles and plastics, take care to use the safer plastics (i.e., those identified with the triangles #1,2,4,5) while avoiding the others (i.e. triangles #3 & 6+). Beyond that, each family must ultimately make its own decision based on tolerance for risk, health status and budget.

Here's what we've done: Dr. Knight has overcome a myriad of personal health challenges caused by nickel poisoning due to exposure from nickel eyeglass frames, stainless watch backs, a teeth-straightening retainer when young, cookware and from otherwise healthy lunches eaten out of all-stainless-steel vacuum bottles. Now in perfect health, Dr. Knight has eliminated stainless as completely as possible from his life. He doesn't worry about the occasional restaurant meal, but will not patronize restaurants with buffets, where food is not only cooked in stainless but sits around in stainless warming pans. At home his first choice for cookware is titanium camping gear, including a pan, plate and one-piece "spork." He also cooks with a well-seasoned carbon steel paella pan and griddle, enameled cast iron skillets, Corning Vision glass stove-top cookware, lead-free crockpots and Pyrex measuring bowls. Dr. Knight buys thin, commercially pure titanium sheets and adds handles to make his own spatulas and choppers and uses bamboo utensils and chop sticks.

Dr. Daniel has substantially reduced her stainless exposure over the past year. She has given away a set of Revereware, purchased Corning glass pans and casserole dishes on eBay and a set of enamelware at www.mercola.com. The downside is that the Corning glassware burns some foods and the enamel pots turn cooking into a weightlifting experience. She also uses a glass tea kettle, cast iron frying pan, carbon steel cookie trays and a lead-free Hamilton Beach crockpot. For cooking utensils, she favors bamboo or wood and seeks titanium alternatives to her stainless spatula, tongs and knives. For cutlery, she mostly uses silverware. Whether the silver is safer than stainless flatware is debatable, but exposure is very brief, from plate to mouth. She enjoys some restaurant meals, even the occasional Indian buffet. She wears a Philip Stein teslar watch and believes that the energy balancing health benefits of the teslar technology outweigh any risks from the stainless case. She still wears some silver and gold jewelry, but only for dress up.

Sally Fallon cooks in cast iron skillets, uses Le Creuset enamel cookware and some lightweight speckled enamel pans (available from hardware stores). She still uses stainless steel cutlery, baking pans, cookie sheets and stainless steel pans for non-acidic cooking (such as vegetable steaming) but in light of the article, has switched to making stock in Le Creuset or lightweight speckled enamel. She is careful to avoid earrings with high-nickel-content posts.

As homemade broth is a key element in the WAPF diet, many members have expressed concerns about their large stainless soup kettles. To make broth properly, after all, vinegar is needed. This provides acidity and ups the risk from stainless. Large families that find glass or enamelware dutch ovens or 6-quart crockpots too small, might consider using two pots. Also stoneware inserts such as the Ohsawa pots offered by Gold Mine Natural Foods can turn big stainless pots and pressure cookers into double boilers and steamers, thereby isolating the food from the metal.

Regarding glass cookware, we must inject a note of caution. Debra Lynn Dadd, the "Queen of Green" gives it her stamp of approval, but the Green Living Q & A section of her website (http://dld123.com/q&a/index.php?cid=3156) includes sobering accounts from a few unlucky consumers whose glass cookware exploded and shattered, endangering people and pets. Over the past year, Dr. Daniel has dropped a few pans with no damage, yet lost a saucepan from the "karate chop" of a spice bottle dropped on it. It broke cleanly in two, with no shattering. Dr. Knight reports that Visions and Pyrex have a long history of safety in both laboratories and kitchens but would beware of the thinner Anchor brand products. To reduce the risk of explosion, never take a glass pan quickly from hot to cold or vice versa, do not burn it dry and never let children cook unsupervised.

Other questions have concerned water filtration systems. These often contain chrome and stainless parts, sometimes brass and copper, and even some silver and lead solder in older faucet units. The solution: water house plants first thing in the morning to purge metal leached into standing water from the lines before drawing water for drinking or cooking.

Dr. Knight and Dr. Daniel both consume a tablespoon of diatomaceous earth per 100 pounds body weight daily for maintenance as per the instructions in the article. They have also detoxed their bodies of heavy metals using supplement plans based on hard science and laboratory assessment and have extensive experience helping their friends, family and clients do the same.

Sally Fallon and Mary Enig take on the Diet Dictocrats

SULFUROUS MODEL

The infamous "milk problem," which led to the death of about half of all inner city infants during the 19th century, was the outcome of feeding brewery swill to confinement cattle. The resulting milk was filthy and so thin that unscrupulous purveyors often added chalk to it, to mask its original bluish color. The latest agricultural model takes us right back to the swill dairies again, with confinement dairy farms located close to ethanol plants so the byproducts can be fed to the dairy cows. With the rising price of corn, these byproducts-fed as a kind of slop or made into pellets-look more and more attractive to dairy producers nationwide. A recent article in Stockman Grass Farmer lists three dangers from byproduct feeding (June, 2008, page 28). One is a type of polio that creates brain lesions in the cows due to high sulfur levels in the feed. The disease has symptoms similar to mad cow disease; the ensuing panic could be very damaging to the entire beef industry and provide the needed justification for imposition of the National Animal Identification System. Second, the ethanol byproducts are highly susceptible to potentially deadly molds called mycotoxins. "The residual mash produced [from ethanol production] is both hot and wet, which is an ideal environment for mold growth. It is dumped out of the centrifuge onto a concrete floor and a front loader loads it into a dump truck for transport to a dairy or feedlot. The factory floor, the tractor bucket and the interior of the truck are all potential sources of yeast infection, which initiates mold formation, and must be constantly kept disinfected to prevent contamination. . . Because this feed is rendered bacterially sterile by the production process, any mold that alights on it can grow extremely rapidly and can reach problematic levels in just a few hours." Aflatoxin can actually survive the ethanol production process, can pass through into cows' milk and is not killed by pasteurization. It is a potent liver poison and major carcinogen. Third, research at Kansas State has found that cattle eating brewer's grains from beer manufacturing were six times more likely to harbor the virulent form of E. coli than cattle fed corn-and cattle fed corn are more likely to harbor the organism than cattle on grass. Adding chalk to the milk is not going to solve this problem. The only solution is to make sure the meat and dairy products you eat come from animals on pasture.

TOP OF THE VITAMIN HIT PARADE

Vitamin D is at the top of the vitamin hit parade these days, and with good reason. Ongoing research is constantly finding new links to vitamin D deficiency and disease. Men lacking vitamin D have more than double the normal risk of heart attack (Archives of Internal Medicine, 2008 Jun 23;168(12):1340-9); low levels of vitamin D in women increase the risk of preeclampsia, one of the most dangerous pregnancy complications, involving high blood pressure and protein in the urine (J Clin Endocrinol Metab 2007;92:3517-22); in adults vitamin D leads to mood improvements and protects against depression (Archives of General Psychiatry, May 2008, Vol 65, No 5); and vitamin D protects against multiple sclerosis (JAMA, 2006). Sunlight exposure is associated with reduced risk of various types of cancer (Cancer, March 2002; 94:1897-75). Many researchers believe that vitamin D deficiency is a factor in autism (www.vitamindcouncil. com/health/autism/vit-D-theory-autism.shtml). Those living in northern climates and breastfed infants are most at risk for vitamin D deficiency, but these challenges are easily overcome by taking a natural source of vitamin D, such as cod liver oil. Unfortunately, some of those promoting vitamin D have issued warnings against vitamin A, calling it toxic, and claiming that vitamin A antagonizes the action of vitamin D. Actually, vitamins A and D work synergistically-vitamin D receptors can't function without vitamin A, for example. So let's not jeopardize the action of vitamin D-whether we get it from sunlight, supplements or foods like cod liver oil-by not getting enough vitamin A at the same time.

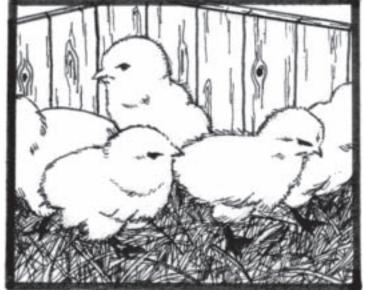
FOR SCIENTISTS AND LAY READERS

Please note that the mission of the Weston A. Price Foundation is to provide important information about diet and health to both scientists and lay readers. 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.

COD LIVER OIL

Cod liver oil provides natural vitamins A and D, plus important elongated omega-3 fatty acids. Unfortunately, most studies look at these nutrients in isolation, rather than in combination as a food. One exception is a recent study from Scotland. Scientists in Dundee and Edinburgh followed 97 adults with rheumatoid arthritis, half of whom took two teaspoons of "high strength" cod liver oil every day and half of whom took a placebo. Over the course of nine months, the patients were asked to try to gradually reduce their intake of description of an experiment with chicks. Three groups of chicks were fed on the same diet. The first group received no vitamin D at all. The second group was given synthetic vitamin D (vitamin D_2 , made by irradiating yeast). The third group received a natural vitamin D preparation made from cod liver oil. The chicks receiving no vitamin D gained 259 grams; those receiving the synthetic vitamin D gained 346 grams; those who had the benefit of the natural vitamin D gained 399 grams. The most important finding was this: of the chicks receiving no vitamin D, 60 percent died; of the chicks

anti-inflammatories. Nearly 40 percent of those in the cod liver oil group were able to reduce their intake by more than 30 percent. By contrast, only 16 percent of those taking the placebo achieved that reduction. "Cod liver oil supplements can offer a natural pain management treatment without the harmful side effects associated with antiinflammatories," said study leader Jill Belch, who attributed the good results to the fatty acids, not the politically unpopular fatsoluble vitamins A and D



receiving synthetic vitamin D, 50 percent died; while in the natural vitamin D group, no chicks died. Experiments of this type convinced the dairy industry to stop fortifying milk with vitamin D₂ and use the natural animal form, vitamin D₂, instead. Today vitamin D₂ fortification is limited to imitation vegetarian beverages such as soy milk, rice milk, oat milk and almond milk. With all the focus on vitamin D, the industry is in the process of restoring the reputation of vitamin D₂, focusing on recent studies showing that vitamin D₂ is "just as well absorbed"

(*Rheumatology*, May;47(5):665-9). But the "high strength" cod liver oil sounds like the high-vitamin cod liver oil that we endorse. For recommended brands, see our Shopping Guide or visit our cod liver oil page at westonaprice.org/basicnutrition/cod-liver-oil-menu.html. Be sure to avoid brands that have very low levels of vitamin D. The ratio of A to D in cod liver oil should be 10 to one or less—without vitamin D, vitamin A can cause problems. (Some popular brands have a ratio of 100 to one.)

NATURAL IS BEST

From a book called *Food and Nutrition*, written by E.W.H. Cruikshank, MD, published in the US in 1951, comes a

as vitamin D_3 . But obviously, it does us no good to absorb a synthetic vitamin if its actions are potentially harmful.

VITAMIN K GAINING GROUND

Which vitamin is likely to replace vitamin D at the top of the vitamin hit parade? We are placing our bets on vitamin K_2 , the animal form of vitamin K, most likely the same nutrient as Weston Price's Activator X. (See www.westonaprice. org/basicnutrition/vitamin-k2.html.) To a long list of benefits from vitamin K (strong bones and teeth, cardiovascular health, neurological development, fertility and good facial structure with exposure in utero), recent research adds a few more. A study from Europe found that an increased intake of vitamin

K₂ could reduce the risk of prostate cancer by 35 percent. In addition, the potential benefits of K₂ were more pronounced for advanced prostate cancer, while vitamin K₁ (the form found in plant foods) offered no benefits (American Journal of Clinical Nutrition, 2008 Apr;87(4):985-92). Another study found a positive link between vitamin K₂ and hip fractures and osteoporosis (European Journal of Epidemiology 2008 Jan 23(3):219-25). Most interesting of all is research suggesting that vitamin K plays a role in protecting skin elasticity and may help protect against skin aging and the development of wrinkles (Laboratory Investigation 2007 doi: 10.1038/labinvest.3700667). The best sources of vitamin K₂ in the western diet are poultry liver, cheese, egg yolk and fatty meats, so when vitamin K gets to the top, expect to see the promotion of vitamin K in pill form, not in these politically incorrect foods.

SAME OLD, SAME OLD

In spite of ever accumulating evidence on the benefits of traditional fats in the diet, the diet dictocrats are pushing the same old boring lowfat diet. The most recent *Health* and Nutrition Letter from Tufts University (August, 2008) provides a list of 30 dietary suggestions, including lots of vegetables; lots of whole grains with just a very thin smear of spread on that bread; cooking in vegetable oils, not butter; less meat; more canned beans; less salt; and iced tea, black coffee or mineral water to drink. Sigh. And oh, yes, eat only from a small plate, never eat everything on your plate, and never, ever eat seconds. No mention of what to do when the cravings hit you just before bedtime, when the body tries to compensate for this virtuous starvation diet by making you eat a quart of ice cream. And at eatingwell.com, you can read about the daily diets of six "nutrition experts," as virtuous as virtuous nutrition experts can be. Lots and lots of lowfat foods in these diets-oyxmoronic lowfat sour cream and lowfat cheese-whole grains like granola and whole wheat pasta, tofu, fish, 2% milk, and politically acceptable fast food like vegeburgers. Most of them admit to giving in to temptations like chocolate, ice cream, white bread, cake or pretzels. One "expert" drinks six diet sodas per day (Winter, 2004).

NO CHILD LEFT BEHIND

If you need any proof that our culture has completely sacrificed the health and wellbeing of future generations to financial interests, consider the new recommendations for "wider cholesterol screening for children and more aggressive use of cholesterol-lowering drugs, starting as early as the age of 8..." (New York Times, July 7, 2008). Why do we need these draconian measures? In "hopes" of preventing adult heart problems. Since cholesterol-lowering measures have not stemmed the tide of heart disease-they still fail to prevent 70 percent of heart attacks-the hope of preventing heart disease using the same measures in children is a vain hope indeed. The new guidelines come from the American Academy of Pediatrics (AAP) which admits that there is not "a whole lot of data" on pediatric use of cholesterol-lowering drugs but that the drugs are "generally safe for children" (New York Times, July 7, 2008). Not to be outdone, Dr. Daniel Steinberg of the American Heart Association is calling for "more aggressive cholesterol control" in children by instituting a low-saturated fat, low-cholesterol diet at seven months (Circulation, August 5, 2008). Basically this means depriving growing children of eggs, butter, cheese, whole milk, liver and red meat, which supply, among many other nutrients, choline and arachidonic acid, necessary for brain development. And how do these guardians of the nation's health propose to implement such a goal? The language in the report is chilling: "It would, of course, take generations to achieve and would require an allout commitment of money and manpower to reeducate and modify the behavior of the nation. Is this impossible? No. We have already shown that even a frankly addictive behavior like cigarette smoking can be overcome (eventually) with the right combination of education, peer pressure, and legislation [emphasis ours]."

IRONED OUT

One of the dangers of a cholesterol-lowering diet for children is anemia. Without meat to supply iron, and without organ meats and animal fats to supply vitamin A (needed for iron assimilation), children are at great risk of deficiency. Anemia in young children manifests as follows: "Infants with chronic, severe iron deficiency have been observed to display increased fearfulness, unhappiness, fatigue, low activity, wariness,

solemnity, and proximity to the mother during free play, developmental testing and at home. In a recent preventative trial in Chile, ratings after 30-45 minutes of developmental testing showed that, compared with infants who received iron supplementation, a greater percentage of unsupplemented infants never smiled, never interacted socially, and never showed social referencing" (www.cholesterol-and-health. com/Low-Fat-Diets-For-Children.html).

MORE AND MORE SIDE EFFECTS

Meanwhile, more and more unpleasant statin side effects are emerging from scientific studies. A team of neuroscientists from Rochester University found that exposure to statins causes special cells in the brain, called glial progenitor cells, to reduce their production of a type of brain cell needed for repair after an infection, hemorrhage, a blow to the head or inflammation within the brain (www.eurekalert.org/pub releases/2008-07/uorm-shu070208.php). Might these cells be also needed for brain development? Statin use is likewise associated with memory loss and impaired cognitive function. Research at Johns Hopkins University has shown a correlation between low cholesterol and autism-autistic symptoms prevalent in the genetic disorder SLOS, in which an enzyme necessary for cholesterol production is defective, quickly reversed after supplementation with dietary cholesterol (www. greatplainslaboratory.com/cholesterol/web/). And low cholesterol during pregnancy is tied to premature birth (Pediatrics, Vol. 120 No. 5 November 2007, 1133-1134). Low cholesterol often leads to muscle weakness, especially in active people. ... such as children! But of course, statins are a great way to slow down that pesky active child. A new study indicates that the cholesterol-lowering drug inhibits mitochondrial function (Toxicol Appl Pharmacol, 2007 Jun 21). The mitochrondria are the energy-producing organs in our cells.

BABY BOOMER KNEES

The number of baby boomers who are opting for knee replacement surgery earlier in life is growing at an exponential rate, according to Dr. J. David Blaha, an orthopedic surgeon at University of Michigan Health System. Only a few years ago, doctors performed between 300,000 to 350,000 knee replacement surgeries annually. Today that number has risen to a staggering 500,000. Experts estimate that there could be as many as 3.2 million annual knee replacement surgeries just ten years from now. Dr. Blaha attributes the increase "to baby boomers wanting to maintain an active lifestyle," with no mention of the debilitating effects from today's processed food diet. Lots of baby boomers are getting knee replacements simply to be able to walk without pain. If that constitutes an "active lifestyle" for the privileged section of society able to afford knee surgery, we not only have a serious problem of widespread malnutrition on our hands, but also of perception. The notion that human beings should be leading a normal, active lifestyle well into old age-without replacing any parts-seems to have fallen by the wayside. Dr. Blaha's greatest concern is finding enough surgeons to do the surgeries! Although the number of orthopedic specialists who do joint replacement is increasing by about 2 percent, "the need for orthopedic surgeons is going to increase by 500 percent. That's a problem of epic proportions" (www2.med.umich. edu/prmc/media/newsroom/details.cfm?ID=333).

PARENTS ARE POWERFUL!

The solution to all these anti-child propositions is for parents to just say no. That is what a coalition of outraged parents recently did in New York. New York Assembly Bill A10942, called the "worst vaccine bill ever," and the mandatory meningococcal vaccine bill tacked onto it late in the session, are both dead. Assembly Bill A 10942 generated intense opposition to the legislation-which would have mandated the whole load of recommended vaccinations for all children, no exceptions—included a rally of hundreds of parents, many the parents of vaccine-injured children. Members of many organizations, including autism organizations, flooded lawmakers with phone calls, faxes, letters and emails in opposition. Organizers of the successful campaign will be lobbying for the passage of philosophical exemption bills in the next session. Congratulations to the strongest force on earth-organized, outraged parents.

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

Healthy Eating Shouldn't Cost an Arm and a Leg Food Budget Strategies that Help Avoid the High Cost of Illness

By Anne M. A. Sergeant, PhD

The set of food, gas and everything else? This is a question often asked by people when considering how to improve their diets. However, the real question should be "How can you afford *not* to eat healthy with the high costs of being ill?"

Eating healthy means different things to different people. The many cultures that Weston A. Price studied had vastly different diets, but they all were remarkably healthy. The current media-recommended diets found in magazines, on television, in advertisements, and in top-sellers are usually not diets to build and sustain healthy individuals. Eating healthy means selecting foods that are nutrient-dense and readily available to the individual.

Healthy diets therefore depend on what is accessible. An individual in Florida would obviously eat more local citrus than someone in Michigan who has access to other fruits, such as apples, peaches and cherries. No matter where you live, however, it is possible to consume a healthy diet for reasonable cost. This is one of the wonders of Dr. Price's research and recommendations. He did not dictate exact foods and consumption amounts as is often seen in present day media-driven diets. Dr. Price presented overall guidelines leaving individuals able to determine a healthy diet for themselves.

A big factor in determining what sort of healthy diet to consume is the amount one can afford to spend on food; however, modest finances need not force anyone to eat an unhealthy diet. There are healthy nutrient-dense foods that are not costly. When Weston Price traveled the world conducting his seminal research, he did not encounter cultures that were wealthy in ways recognized by materially inspired moderns. Nevertheless, food was important to these cultures, and they worked hard to ensure its high quality. The effort they expended to achieve this high standard was understood to be worth the benefits such expenditures of time, labor and skill reliably produced. These cultures universally recognized that what they could *not* afford was sickly children or weak individuals who were not productive members of their society. Understanding the link between health and nutrition, they paid close attention to obtaining foods that sustained a healthy culture.

COSTS OF NOT EATING NUTRITIOUS FOODS

The financial cost of a nutritionally deficient diet can be staggering. Western culture has the luxury of being able to support ill people and therefore has gotten lazy about the importance of consuming high quality food. However, as a society we cannot continue to let our bodies deteriorate. The financial burden on society is tremendous.

In a December 16, 2007 article, *The Washington Post* reported that as a society, the US spends over \$14,000 per family per year on medical costs. It would be far better to spend this money improving people's lives and health. The personal burden of illness is also great. Many people suffer significantly, both financially and personally, because of poor health.

Eating nutritious foods does not have to be costly and can actually be a cost savings in the long-run. There are many things people can do to control food costs while still consuming a health-promoting diet. When budgeting, most people separate medical costs from food costs. However, these two are linked. As one eats more nutritious foods, medical problems and costs can be mitigated or eliminated, thus reducing overall spending. And actually, for the typical family, an increase in food costs is not even necessary for improving the diet.

Improving one's diet does mean spending more time finding more nutritious foods and food sources. But costs do not necessarily have to rise. Not everyone may be able to afford wild salmon for dinner, but they can afford beans and brown rice, both very high in nutrients, especially if served with a little meat, cheese or raw milk. Even the poorest of the poor can choose to eat nutrient-dense foods.

OUR STORY

Seven years ago, I learned about the work of Weston Price through a local chapter of the Foundation. Over the course of the next couple of years, I implemented many of the recommended dietary principles. I love the changes I have seen in our family. Not every family will experience what we did, but I do hope so. This has been a journey well worth taking.

We are not strict about following a Weston A. Price diet. In general, we follow the 80-20 rule. If 80 percent is good nourishing foods, then 20 percent can be left to chance, although we have established some absolute prohibitions. We continue to work at improving our diet and making it more functional in our lives.

Presently, our family consists of a husband, wife and four children ages six to fifteen. Our youngest has been blessed with excellent health because she has always been on a Weston A. Price diet. My older children started their lives with typical American diets, so their health was not as good.

When we started with the nutrient-dense diet, my daughter (then eight years old) was on three medications per day for allergies and asthma. She had eyes that looked like she was constantly crying, with deep "allergic shiners." She wheezed, snored and was basically miserable, but she did not realize it because this was all the life she had ever known. I personally suffered seasonal allergies and would be in a fog most of late summer and early fall. We had the usual missed days from work for personal or family illnesses, doctor visits at least monthly, dental cavities, medications and other effects of being ill.

But what really motivated us to change

The financial cost of a nutritionally deficient diet can be staggering. was that at age eight, my daughter was showing signs of puberty. I had seen other girls mature early and I did not want that for my child. Somehow, I sensed that our diet was influencing my daughter's physical changes. I had not matured so young, I reasoned, what would cause my daughter to do so?

We made drastic changes in our family's diet, eliminating all meat and milk from animals fed growth hormones, as well as all soy products. We thus eliminated a large part of what we were eating in those days, and so we began our journey.

OUR RESULTS

Eight years later, we are a changed family. After six months of raw milk, no soy or meat with growth hormones, my allergic daughter stopped taking her medication and has been almost incident-free for six years. She did not start her menses until age twelve. We have had no cavities for the whole family of six people in more than six years. In the last three years, no one has gone to the doctor for an illness. We have only seen doctors for one broken arm, a few stitches, and a child who has a prescription for Epi-pen because of a significant reaction to bee venom.

I recently went through our medicine cabinet and found that most of the over-the-counter medications were at least three years old. We just do not need medications of any type anymore. I would be surprised if we use a dozen tablets of pain killer a year. There are two teenage children in the house who have no acne and therefore do not incur the expensive fees of a dermatologist. No one has missed a day of work because of personal or family illnesses in three years. Everyone is happy and healthy and we now spend less than \$150 per year on medical costs (mostly emergency room visits for stitches).

Although I do not have actual cost data from before we implemented a Weston A. Price diet, I can say that the cost of medical and dental care has significantly decreased since that time. Before implementing the diet we typically would have had fifteen doctor visits per year for the entire family of four (at the time), three to four prescriptions for the whole year, two emergency room visits (one injury and one medical), four urgent care visits (illnesses), and at least one or two special procedures (such as allergy testing and ENT visits). Our typical out-of-pocket medical costs were over \$1,500 per year. On the average, we had two cavities per year

ANNUAL MEDICAL COSTS FOR OUR FAMILY OF SIX						
	BEFORE WAPF DIET		AFTER WAPF DIET			
Co-pay doctor's visits	\$15 co-pay x 15/yr	\$ 225	\$15 co-pay x 2/yr	\$ 30		
Prescriptions	\$75/mo	\$ 900	1 epipen/yr	\$ 25		
Over-the-counter	Allergy, cold, fever	\$ 80	Fever	\$ 24		
Emergency room visit	\$50 co-pay x 2/yr	\$ 100	\$50 copay x 1/yr	\$ 50		
Urgent care visit	\$35 co-pay x 4/yr	\$ 140		0		
Special procedures	eg: allergy tests, ENT	\$ 150	_	0		
	TOTAL	\$1595	TOTAL	\$ 129		
		<i>.</i>		¢ 10.1		
Routine dental care	Office visits/x-ray	\$ 164 \$ 200	Office visits/x-ray	\$ 134		
Dental fillings	\$100/tooth x 2/yr	\$ 200	Assidant	0		
Repair broken tooth	TOTAL	0 \$ 364	Accident	\$ 135 \$ 269		
	IOIAL	. \$ 504	IOIAL	\$ 209		
Regular eye exam	\$15 co-pay x 6/yr	\$ 90	\$15 co-pay x 6/yr	\$ 90		
Glasses/contacts	For parents	\$ 325	for parents	\$ 325		
	TOTAL	\$ 415	TOTAL	\$ 415		
Vitamins	Children chewable	\$ 57	Vitamin C	\$ 32		
Natural supplements	_	0	Garlic pills	\$ 12		
	TOTAL	. \$ 57	TOTAL	\$ 44		
TOTAL MEDICAL COSTS	GRAND TOTAI	\$2431	GRAND TOTAL	\$ 857		
SPECIAL ITEMS						
Orthodontics	Two older children	\$5400	Younger children	Probably 0		
Lost work days	10 days per year	\$\$\$\$	0 days in 3 years	0		

which increased our dental care by \$200 even with good insurance. Both older children have had orthodontic work which cost over \$5400 after insurance. Nonprescription medications were a regular purchase. There were also the lost work days and substandard work due to feeling poorly. All these added up to large expenses both financially and emotionally.

I asked my fifteen-year-old (formerly allergic) daughter what she would say about following the Weston A. Price food guidelines. She said she loved not having acne like so many of her friends. Surprisingly, she also recognizes that she has more energy than most of her friends. She describes how she can play two basketball games in a row without collapsing whereas some of her team mates can hardly last one game. On the down side, she said she does get teased. "You can't have that, you eat healthy." All her friends know she eats differently from the way they do, but overall she is very glad we eat as we do.

FACIAL STRUCTURE

As a follower of Dr. Price, I have been interested to see the difference in the development of facial structures between my two older children who were raised on typical American diets for their first eight years and my two younger children, especially my youngest who was nourished primarily with a nutrient-dense diet. Both the older children have had orthodontic care and showed the typical crowding of teeth. Neither of the younger children may need it. If we do not have to provide orthodontic care for the younger children, we will be saving enough money to buy grass-fed meat for many years!

OUR DIET

Over the years we have modified and improved how we implement a Weston A. Price diet. Early on, we started with raw milk and continue with it today. Each family member is allocated one gallon per week. We make some butter from the cream in our raw milk but most of the milk is consumed as milk. In the future, we plan to improve our diet by purchasing additional shares of milk so we can make all of our butter from the raw cream.

Cod liver oil and butter oil are important sources of nutrition and are highly valued in our family. Everyone takes it every day.

All our meats are raised by local farmers and purchased in early fall. These are stored in two chest freezers which we added over time. The beef is grass-fed and the chickens are free-range.

For a few years, we were part of a CSA (Community Supported Agriculture) but in recent years have planted our own vegetable patch in a community garden. We still support local farmers by buying additional produce at the local farmers' market or directly from farms. Locally, there is a cheese producer who makes raw milk organic cheeses, which we especially treasure in the winter when there are fewer raw vegetables. We consume four to five dozen free-range eggs per week, which are purchased directly from a farmer.

In all, we pay more than 50 percent of our food budget directly to farmers, something I can say with pride!

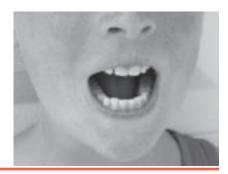
Because of our family's size, we also purchase large quantities of staples through a buying club co-op. These include staples like flour, oat-



LEFT: The happy, healthy Sergeant family has seen overall food, dental and medical costs drop since their transition from a standard American diet to a Weston A. Price diet.

> RIGHT: The oldest Sergeant son, top, brought up on the standard American diet until the age of seven, has a narrowed palate and crowded lower teeth. The third child, below, raised on a nutrientdense diet since the age of two, has more room for the teeth and is unlikely to need orthodontics.





meal, lentils, beans, rice, canned goods, oils, butter and yogurt. Much of the remaining food is purchased through a small locally owned market, an Asian food store, or a health food store. There are some items that can only be purchased through the mega-grocery stores, but these expenses are less than 10 percent of our costs. As our family grows and different foods become available, we have improved our implementation of the nutrient-dense Weston A. Price diet. Interestingly, we have continued to spend about the same amount of money overall because this is what we have to spend.

To successfully implement a nutrient-dense diet, one must be prepared to cook! Preparing and cooking food takes time, but so does going to the doctor. I prepare twenty meals a week in my kitchen while working fulltime. To do this, I need to be committed and to have a plan. Each Sunday, I plan what will be prepared each day for the following week and what advance prep is required. These schedules are saved and recycled to cut down on future planning time. Over time, I have improved my planning and found ways to save time in food preparation, but will not compromise by buying packaged foods.

Some tricks I use are: making large batches of sauces to last a few

days; doubling recipes for leftovers; cooking large quantities of ground beef and freezing it in one-pound packages for easy use; serving two or three leftover dishes during the week; omitting desserts most meals; serving the same meal on one day of the week while saving another day for something special.

There are many resources available to help save time cooking and this is where a local chapter of WAPF can be beneficial. The experienced cooks help the novices. The most important thing for me is to guard my mind carefully, and not resent preparing food for my family. Cooking must be done, so why not do it cheerfully and enjoy it!

TYPICAL AMERICAN DIET

To understand more fully the cost comparison between a Weston A. Price diet and the

	ANNUAL	MONTHLY	WEEKLY
Food directly from farmers			
Raw milk	\$1,668	\$ 139	\$ 32
Beef (whole cow)	1,320	110	25
Chicken (50)	954	80	18
Pork (half pig)	372	31	7
Turkey	84	7	2
Raw milk cheese	420	35	8
Eggs	475	40	9
Peas, fruit	140	12	3
Farmers' market vegetables	225	19	4
Food purchased through buying club			
United Foods	1,856	155	36
Country Life (local coop store)	845	70	16
	045	70	10
Small grocery store purchase			
Local market	1,250	104	24
Asian food store	176	15	3
Health food store	124	10	2
Food purchased from mega-grocery store	944	79	18
rood parenased nom mega grocery store	511	15	10
TOTAL COST FOR COOKING	10,853	9046	207
- I			
Food eaten out	1,440	120	28
Cod liver oil and butter oil	1,602	134	31
TOTAL COST OF EATING	\$13,895	\$1,160	\$ 266

WESTON A. PRICE DIET ANNUAL FOOD COSTS FOR OUR FAMILY OF SIX

A	A WEEK OF MEALS FOR OUR FAMILY, THE WESTON A. PRICE WAY							
BREAKFAST Raw milk Natural bacon Farm fresh eggs Homemade bread Butter Coffee with raw cream	LUNCH Raw milk White bean stew Carrots Cucumber tomato salad	SNACKS	DINNER Raw milk Steaks on the grill Corn on cob, grilled onions Potato wedges in olive oil Watermelon Wine	PLANNING Plan week's meals Meat out of freezer				
Raw milk Farm fresh eggs Homemade bread Butter Coffee with raw cream	Raw milk Lentils Brown rice, leftover Carrots, onions, garlic, spices	Homemade tomato juice Popcorn Coconut oil	Raw milk Baked chicken Coconut curry sauce Carrots, onions Mashed potatoes Spring leaf mix Balsamic salad dressing Fresh cherries	Soak flours Start chicken broth Start beef broth Make tomato sauce Fry ground beef, onions Make kombucha Make beet kvass				
Raw milk Wholegrain pancakes Butter, maple syrup Blueberries Coffee with raw cream	Raw milk Fried leftover rice Onions, garlic Peas, frozen Farm fresh eggs Spices	Kombucha Raw cheese	Raw milk Caesar salad extra anchovies Wild salmon steak Black bean salad Peach cobbler	Soak oats				
Raw milk Soaked rolled oats Butter, Coconut Nuts, Raisins Maple syrup Coffee with raw cream	Chicken soup from leftover rice, peas, carrots, onions Homemade bread Butter	Beet kvass Crispy nuts	Raw milk Chili with ground beef, homemade tomato sauce canned beans & corn Tomato, cucumber salad Fresh blueberries	·,				
Raw milk Farm fresh eggs, scrambled Onions, green peppers Salsa Butter Coffee with raw cream	Raw milk Bean burritos Cheese Refried beans Tomatoes, lettuce Homemade enchilada sauce	Kombucha Crispy nuts	Raw milk Borscht made with Monday's beef broth, vegetables, beef, sour cream Homemade bread Raw cheese	Soak flours Make butter Bake bread Make pizza dough Soak beans Make enchilada sauce Make pizza sauce				
Raw milk Whole grain waffles Butter, Bananas Maple syrup Coffee with raw cream	Raw milk Leftovers	Yogurt smoothie with bananas and berries	Raw milk Homemade pizza with raw gouda cheese, fresh basil, tomatoes, olives Peaches and cream					
Raw milk Farm fresh eggs Refried beans Cheese Homemade salsa Home fries Onions, potatoes Coffee with raw cream	Raw milk Pasta with home - made tomato sauce, cheese, ground beef, spices	Beet kvass Raw cheese	Raw milk BBQ beef, slow cooked Kale fried in butter Cauliflower with butter, garlic Homemade ice cream					

typical American diet, I prepared a typical meal plan for our family from before implementing our nutrient-dense diet plan. This meal plan was based on 2200 calories and included two lunches out and one dinner out per week. (See sidebars, below.) The menu items include things children prefer because it was based on a family plan. Costs per person were gathered from our local grocery store using the cheapest available products and totaled for each day. The weekly total cost per person was just over \$60 which is an annual total of \$3200 per person. Assuming our family of six consumes four adult portions and two half-adult portions for the younger children, the annual total cost of a typical American diet would be about \$16,000 per year. By contrast, our actual spending for a nutrient-dense diet, including eating out, cod liver oil and butter oil, was \$13,895 last year.

Remarkably, this nutrient-dense diet is two thousand dollars less expensive than a typical American diet—and that does not count the savings in medical and orthodontic bills. It is obvious that eating a nutrient-dense diet can be accomplished for a reasonable amount of money. You may think the \$16,000 for a typical American diet for a family is unrealistically high. I challenge you to keep track of ALL your food purchases for three months. This includes eating out. The total figure may surprise you. Even if your total is considerably less than this total, the point is that you can eat a healthy nutritious diet for what you are already spending.

Here are some practical suggestions for managing your food costs.

1. KNOW YOUR COSTS

Computing costs of food is not difficult but most people do not do it. To determine which food is a better value compute (1) cost per calorie, (2) cost per gram protein, (3) cost per pound, and (4) cost per meal. Knowing the cost per meal will help in meal planning and budgeting.

To compute the cost per calorie, simply take the cost of the package and divide it by the total calories in the package. The total calories are the number of servings times the calories per serving. Likewise, cost per

			1Alica	Traditiona			г	
PER PERSON DAILY TOTAL	\$9.23		\$9.03		\$7.17		\$15.57	
cheap steaks lettuce salad salad dressing tomatoes peppers cucumbers corn on cob margarine frozen eclairs wine	1.00 0.56 0.07 0.25 0.17 0.50 0.33 0.11 1.00 2.00	hot dogs buns frozen fries baby carrots ice cream pop	0.69 0.16 0.23 0.26 0.25 0.31	frozen lasagna frozen peas french bread garlic sticks store pie pop	1.38 0.31 0.17 0.52 0.94 0.31	restaurant	12.00	
chips salsa grape juice	0.13 0.21 0.25	micro. popcorn apple juice	0.39 0.27	cheese stick grape juice	0.32 0.25	saltine crackers peanut butter apple juice	0.08 0.14 0.27	
canned soup garlic bread chocolate milk orange	0.24 0.24 0.37 0.67	Subway	5.50	multigrain bread ham chocolate milk baby carrots cookies	0.29 0.75 0.37 0.26 0.12	multigrain bread turkey chocolate milk chips cookies	0.29 0.75 0.37 0.27 0.12	
SUNDAY coffee black donuts orange juice	\$/PER. 0.30 0.54 0.31	MONDAY coffee black cereal (Cherrios) past. milk banana	0.30	TUESDAY coffee black cold cereal past. milk apple	\$/PER. 0.30 0.31 0.22 0.35	WEDNESDAY coffee black cereal (granola) past. milk raisins	\$/PER. 0.30 0.38 0.22 0.38	

THE HIGH COST OF THE STANDARD AMERICAN DIET

gram protein is computed by dividing the total cost by the grams of protein per serving times the number of servings. Some foods, such as fruits and vegetables, are best compared using cost per pound. Shopping with a calculator and taking notes will greatly facilitate this process. Do not spend too much time being extremely precise, the rough estimate will speak for itself. The biggest difficulty will be finding cost data for food that does not come with a nutritional label or a barcode. Here cost per pound will be most effective.

As you gather more and more data, your general understanding of various food costs will increase, and some foods that seemed expensive to you before will no longer appear to be so costly. For example, pre-made hamburger patties of good quality cost about \$1.00 per quarter pound patty or \$4.00 per pound. Grass-fed ground beef can be purchased for \$3.00 per pound and made into patties. Raw-milk which costs \$5.00-\$6.00 per gallon can be made into yogurt for much less than the cost of good-quality whole-milk plain yogurt. Typically, processed foods will be much more expensive. Dry beans cost about half as much as canned beans. Making hamburger patties, yogurt and beans does not take a great deal of hands-on-time, it just requires advance planning.

2. PLAN MEALS

Planning meals is a necessary part of developing a healthy diet and also controlling costs. A little time spent regularly planning meals produces *great* rewards both financially and operationally. Each person needs to determine how long a planning horizon to use. Most often, a weekly schedule is used but some do it for a month and others for three days. The point is that it is necessary. Without a plan, one can not hope to operate efficiently. For us, Sunday evening is the time to plan the meals for the week and to take meat needed for the next few days out of the freezer. Mondays and Thursdays as I make dinner, I also prepare for meals later in the week.

Keep your plans simple. Plans that are too complicated are difficult to follow. Meals do not have to be different every day. As a time and stress saver, we always have baked chicken on

THURSDAY	\$/PER.	FRIDAY	\$/PER.	SATURDAY	\$/PER.	
coffee black instant oatmeal pasteurized milk raisins	0.30 0.29 0.22 0.38	coffee black bagel cream cheese past. milk fruited yogurt	0.30 0.55 0.25 0.22 0.56	coffee black pancakes (mix) flavored syrup rasp/lemonade juice	0.30 0.08 0.31 0.23	SUMMARY The annual per person total is \$3217. For a family
multigrain bread bologna chocolate milk applesauce cookies	0.29 0.37 0.37 0.32 0.12	multigrain bread PB & J chocolate milk orange cookies	0.29 0.27 0.37 0.67 0.12	fast food burgers	4.00	of two adults, two teenagers and two elementary school children, we multiply by 5 to get \$16,085 in total food costs.
fruited yogurt cranberry juice	0.56 0.33	granola bar apple juice	0.57 0.27	popsicles peanuts	0.12 0.27	This total is about \$2000 more than the total for eating
spaghetti canned sauce ground beef lettuce bag iceberg salad dressing garlic bread popsicles pop	0.15 0.30 0.87 0.56 0.07 0.24 0.12 0.31	frozen pizza ice cream pop	1.40 0.25 0.31	baked chicken breasts canned mushroom soup frozen tater tots frozen broccoli/cheese brownies pop	1.00 0.67 0.33 0.58 0.13 0.31	healthy food the WAPF way—and that does not count the savings in medical bills!
PER PERSON Daily total	\$6.16		\$6.39		\$8.33	

THE HIGH COST OF THE STANDARD AMERICAN DIET

Mondays for dinner. This frees me from having to think of a meal for that day. I know we will go through fifty chickens in a year and therefore we buy those from a local farmer once a year. Simple meals require fewer specialty ingredients, which allows more room in the cupboards and refrigerator for more nutritious items, and also saves money. Although Mondays are simple and repetitive, weekends are planned as time for elaborate fancy new culinary delights. This gives us the opportunity to try new recipes and look forward to something special.

Modify your meal plan as you go. If you find that week after week you have extra leftovers, then plan meals composed of leftovers with a backup if the leftovers are gone. Our leftover Monday chicken is planned to go into a soup Wednesday or Thursday. Soups are excellent places to utilize leftovers. If you find that week after week you are eating out one particular day of the week, then try to plan something simple for that meal, or else build going out into your plan by including less expensive foods in other meals. After a few months of planning, it will become an easy routine.

3. MAKE A BUDGET

Budget can be a nasty word, but instead of being confining, a budget can actually be liberating. When determining a budget, start by tracking all food costs, including eating out, for a couple of months to get a good understanding of what you are already spending. Try not to change your supply of food on hand. Once you know how much you spend, see how this fits into your overall budget. Is this amount realistic?

Recently, a friend asked me to help her plan food purchases given that she had \$60 per week to feed a family of seven. This is an example of an unrealistic food budget. She could not provide enough calories for her family even if she spent the \$60 per week entirely on dried lentils and rice. Fortunately, she was able to decrease spending in other areas to increase her family food budget, and they are also raising their own grass-fed beef and some other food.

The budgeting time period will depend on the specific family economic situation. Some people shop weekly and would benefit from a weekly budget allowance, assuming that they are also putting money away for the large food purchases that come up occasionally. Others who receive a bi-monthly paycheck may want to operate with a two-week budget. In our family we must set aside money each paycheck for big annual purchases such as chickens, beef and pork, which tend to all arrive in the late summer and fall. We have a second budget for monthly purchases such as raw milk, cheese, and food co-op purchases, and a third budget for weekly purchases from a local market and egg farmer. This is probably more elaborate than need be when just starting out, but it works for us.

To balance a budget, expensive meals need to be offset by inexpensive meals. This is where knowing the true cost of your foods is helpful. We typically plan a couple meals per week of lentils and brown rice, refried brown rice with egg, bean burritos, soup or pasta as our inexpensive meals. These offset the more expensive meals that include raw cheese, grass-fed beef, free-range chicken, and wild fish. Remember that in the traditional cultures Price studied, there were sacred foods for which the people sacrificed dearly.

Record keeping is critical for good budgeting. One can plan forever but if spending is not stopped when the money runs out, budgets will not work. There are many ways to keep track of spending. Some people use an envelope system where money is regularly put into an envelope for a certain purpose, with a rule that expenditures can only be made from that envelope. Others keep track on paper or on a spreadsheet. Using this system requires setting a dollar figure for each period and then expenses are recorded and subtracted from the total. I have seen people keep their food budget on the refrigerator door. It can also be kept in the back of the checkbook. What is important is keeping track somewhere so it works for you.

Like meal planning, budgeting is a cyclical process. If you find you are constantly overspending in one area, try to reduce another area to make up for it. Try adding more inexpensive meals and reducing the frequency of expensive meals. It may be that you must eat inexpensive meals six days a week allowing for something special only once a week. You will enjoy it much more if it truly is something special.

Budget can be a nasty word, but instead of being confining, a budget can actually be liberating. Making a budget is easier than sticking to it. Through trial and error you will learn to refine your budget over time into something that works best for you.

4. BUY NUTRIENT-DENSE FOODS

A healthy diet consists of eating foods that are high in nutrition. Nutritional needs will vary for each individual but getting a good "bang for the buck" is important. In general, more nutritious foods are going to be grown by farmers interested in nutrition and healthy sustainable agricultural methods. These foods will *not* have nutritional information or barcodes attached to them!

Identify the top half-dozen most nutritious foods you want in your diet. Buy these first before considering other foods. In our house, cod liver oil, butter oil, raw milk, raw cheese, butter, grass-fed beef, free-range chicken and eggs, and wild fish are top priorities. These are foods we are willing to spend a lot of money on and do not opt for cheaper alternatives. These are similar to the sacred foods that traditional cultures valued highly.

If most of your food is nutrient dense and your family is basically healthy, some of what you eat can be a compromise. At other times for health reasons, one needs to be 100 percent vigilant. A friend of mine with severe multiple chemical sensitivities must, for her own health, be constantly aware of everything she consumes. But most of us can satisfactorily operate using an 80-20 rule. If 80 percent of our diet is good, 20 percent can be less nutritious. However, there are absolutes that should not be violated.

5. KEEP A SHORT LIST OF ABSOLUTES

Typically the list of absolutes are absolute no's but can include some absolute yes's. For example, in our house we operate with an absolute no to diet pop and an absolute yes to daily cod liver oil. Keep your list short (two or three items), otherwise it is difficult to remember and act on your absolutes. As one item is weeded out, another can be targeted. It is important to focus on an absolute no for at least three to six months for it to be truly weeded out. Some absolutes may take years to uproot entirely. So choose absolutes wisely. For many people, I advise starting with soft drinks if that is a problem in their family. Sodas are a big "budget buster" as well as providing no nutrition and causing the body harm. Water works!

6. KNOW YOUR "BUDGET BUSTERS"

Budget busters are things that you find over time cause you to overspend. Each person will have his own particular budget busters and will need to be creative with ways to avoid them. Some common budget busters include eating out, packaged or processed foods, cold breakfast cereals, beverages that add little nutritional value, and impulse purchases made in the store.

Eating out is a common budget buster. To fight this, I keep some food in the house that is *easily* and quickly prepared, and which stores well. For us, it used to be packaged macaroni and cheese, and we called it "emergency food." Although this was not the greatest choice, I rarely used it but enjoyed knowing it was there. It was part of the 20 percent solution. After a while of it sitting idly on the shelf, the kids started begging for "emergency." I now use cans of organic beans that are heated in a pot with spices from the cupboard. This can be on the table in five minutes and is nutritious and cheap.

Packaged foods, like eating out, can cause significant damage to a budget. Dry beans are half the cost of canned beans. Commercial barbeque sauce is more expensive per pound than the freerange chicken it goes on. The more food that can be purchased in its whole form and cooked at home, the less expensive eating will be. Breakfast cereal, although easy for kids to manage, is far, far more expensive than eggs which have far, far more nutrition. Does it take all that much more time to make thirty hamburger patties and store them in the freezer for later use than to buy premade patties of lower quality? Having a good plan will reduce the need for packaged foods.

Beverages are often overlooked budget busters because we habitually spend money for them without questioning their nutritional value. As mentioned earlier, soft drinks are extremely expensive for their nutritional value, and so are alcoholic drinks and coffee. Beverages should provide nutrition and not be empty calories. This does not mean that these can never be consumed, unless they are on your absolute list. Wine is a nice addition to a special meal and does add Commercial barbeque sauce is more expensive per pound than the free-range chicken it goes on. some nutrition although it is *not* a good nutritional value for the money. Coffee can have some nutrition if raw cream is used, but it too has little nutritional value for the cost. Occasionally (less than once a year) we will have commercial root beer with home-made vanilla ice cream. The key is that these are not on the forbidden list for us, and we choose these as treats and consume them very rarely. There are wonderful nutritious beverages that can be substituted instead, such as raw milk, beet kvas, kombucha, and others found in *Nourishing Traditions*.

Impulse purchases will blow any budget. When you visit any store (grocery, clothing, hardware, anywhere) bring a list with a dollar figure that can be spent. At least then you start with a plan. Sticking to it is easier if you know what you are allowed. Purchases over the budget can be evaluated for just what they are: "special purchases."

Each person will have her own specific budget busters. Our two greatest budget busters are entertaining and eating out. I will buy things for company that I would not normally purchase for the family. To combat this, I prepare a budget for specific entertaining activities and plan for it just like regular meals. We do add some special items because it is a special night, but not hundreds of dollars of special items.

I have to resist the temptation to eat out. Fortunately, if I am diligent about planning meals the temptation is greatly reduced. It is when I am stressed that I am most likely to want to eat out, but it is then that I most need the good nutrition of a home-cooked meal. With a plan, I am far better about avoiding the budget busters.

7. MAKE SOME IMPROVEMENTS

Life is constant growth. We need to continue to make new improvements in our diet. Decide what is most important. It should be something doable. Then act on it. Focus on that thing specifically until it is reasonably mastered. Usually this will take three months or more. Then choose something else. Changes can be small, like changing the kind of salt used, or big, like cutting out all soy products. Pick good times of the year to make changes. If Christmas is a weak point, start something new in January, not November. Keep a list of what you hope to change in the future. We are planning on buying more milk to make all of our butter and at some point removing coffee from our diet. The key is to keep working at it and to be kind to yourself.

8. PRACTICE FORGIVENESS

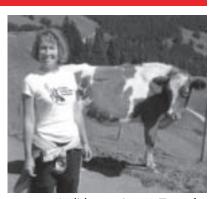
To accomplish anything in the present that will benefit us in the future, we must forgive our past. Act in the present so that you can gain in the future. We have all made mistakes in our past, mistakes that have lasting consequences. We were acting with a limited set of information. Now that we know better, we can act differently. The future is glorious.

Anne M.A. Sergeant, PhD, is an Assistant Professor of Accounting at Grand Valley State University. She is a former board member for Nourishing Traditions of West Michigan and has given talks on practicalities of getting started on a Weston A. Price diet, cheese-making, canning and preserving foods.



ANNUAL SWISS TRIP

Fourteen intrepid travelers join Judith Mudrak for her third annual Swiss trip in July. Raw Swiss cheese from the trip will be served at our ninth annual conference in November.



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LEFT: Judith Mudrak with Hedwig Rubin-Henzen, who was photographed by Dr. Price during his visit to Switzerland in 1932. She still has a beautiful round face!

RIGHT: Cows graze in the shadow of the church photographed by Dr. Price.



Judith wearing "A Toast for Raw Milk Freedom" T-shirt with the Alps in the background. Raw milk T-shirts are available from www.farmtoconsumer.org or (703) 208-FARM.

Cooking for Sequoia Academy Improving the Quality of School Lunches

By Stephanie Rivers

hen I began volunteering at Sequoia Academy, a new private school of about a dozen students, in Janesville, a medium-sized working class city in southern Wisconsin, I never imagined that I would end up as a lunch lady. The school has multiple grades in one classroom with an emphasis on environmental education; the children spend time outdoors almost every day. The kids take field trips to local farms and participate in naturebased community service activities.

I especially like the fact that Sequoia Academy is a very practical school with a curriculum that allows each student to work at his or her own pace, and where children are able to learn hands-on life skills.

It all started when I volunteered to lead environmental education activities with the kids once a week. I would often arrange food-related activities because, in my mind, food and environmental education are inseparable.

In working with the kids and talking to the parents, I began to learn that food intolerances, food aversions and decaying teeth were common in the group. Many parents expressed frustration with these developments, because they were trying to feed their children healthy foods. Unfortunately they were giving them hard-to-digest foods like raw spinach, granola, whole grain cold cereals, soy milk, rice milk, and other darlings of the natural foods movement. The kids with the known food intolerances and tooth decay were probably eating more fruits, vegetables and "natural foods" than those who were eating a more standard American diet. Between the food intolerances and the antinutrients in the grains and soy, it is no wonder that they were showing signs of mineral deficiencies, such as cavities. I just looked around at the lovable kids and thought, "These kids need some nourishing traditional foods!"

It didn't take long for me to establish a reputation with the school administrators and parents as a good cook and to gain their trust in the important job of nourishing their children. I started by directing the food-related environmental education activities with the kids. We made soaked oatmeal cookies and yogurt dough crackers. These were a big hit with both children and parents. We even made home-made sauerkraut. I also made sure to bring properly prepared nourishing treats to PTA meetings whenever I had the time. When I started the Janesville Chapter of the Weston A. Price Foundation, I held my first two meetings at the school. I invited parents to come to the meetings and offered food samples and recipes. I found that most if not all parents were very open to the principles of nourishing traditional diets. The parents of children with food allergies were especially interested in my gluten-free and casein-free recipes.

When I phoned the director of the school and told her that I felt inspired to cook for the kids at least one day a week, she was happy to let me help out. The lead teacher was already overextended. Having someone in the kitchen, even one day a week, would be a big help. That is how it all started. Soon I was cooking once a week, planning the meals and doing the shopping. I would write up recipes that the teacher could prepare in my absence and make sure that the cupboards were stocked with plenty of healthy ingredients. It was not long before cooking once a week turned into cooking twice a week. Cooking twice a week eventually turned into a part time job planning the menus and cooking nearly every day. I have recently gone back to one day a week of cooking and planning the menus. Fortunately, the school was able to find a parent volunteer who is willing to cook several days a week.

DESIGNING A MEAL PLAN

About one fourth of the children at Sequoia have a known food allergy or intolerance. To plan meals for them, I had to read up on food allergies. I was already somewhat familiar with label reading for food allergens, having a husband who avoids gluten, casein and peanuts. Unfortunately, many of the gluten-free and dairy-free processed foods that are marketed to people with food allergies are high in starches and sugars and low in nutritional value. I didn't want to just avoid feeding allergens to these children. I wanted to help them resolve mineral deficiencies and overcome their allergies. At the very least, I wanted to feed them nutrient-dense foods that would not cause them harm.

I had learned from my research that soaking and sprouting grains, nuts and legumes could help minimize food allergies.1 I also learned that a lack of beneficial bacteria in the intestines causes proteins and starches that have not been completely digested to leak through the gut wall and provoke immune reactions.² While I knew that my two meals a day would not be enough to heal the children with these issues, I resolved to do the best I could to give them foods that would not exacerbate their problems. I also decided that feeding soaked or sprouted grains, nuts and legumes would be beneficial for all of the children. Traditional cultures knew that it was important to use soaking, sprouting and sour leavening to prepare grains and seeds. We now know that phytic acid in un-soaked whole grains contributes to mineral deficiencies.³ Other components in foods, such as the oxalic acid found in raw spinach and chard, can also rob our children of calcium.4 I make a point of always cooking these foods and offering them in small amounts.

The good news is that bone broth can provide some of the minerals children need. It has the added benefit of gelatin, which soothes their young tummies.⁵ I make every effort to use broth in my cooking whenever possible. I get praise from the school staff members on my delicious sauces and gravies. When they want to know what spices I use, I have to admit I only use only good broth and sea salt.

When it comes to fats, my research has shown that children, especially those with food allergies, benefit from avoiding processed veg-

I found that most if not all parents were very open to the principles of nourishing traditional diets. etable oils, which are almost always rancid from processing.⁶ In fact, saturated fats, which are less likely to become rancid from normal cooking, can play a valuable role in children's diets. They contain many important vitamins and are a terrific source of energy and nourishment. Coconut oil is especially beneficial with its high content of lauric acid, which is both anti-viral and anti-bacterial.⁷ Since the children are constantly exposed to illnesses in school, coconut oil seems like a good choice.

Organic butter from grass fed cows is another one of my favorite healthy fats. It is rich in the fat soluble vitamins A, D, K and E with all of the cofactors necessary for proper assimilation of these nutrients.8 I use clarified butter if I am cooking for children with dairy allergies who do not tolerate the small amount of lactose or casein found in whole butter. Be aware that some children still react to clarified butter. Lard, tallow, and goose fat are all good alternatives. These traditional animal fats contain a combination of saturated fatty acids, monounsaturated fatty acids and polyunsaturated fatty acids. They are also rich in vitamins and other beneficial compounds, including the nutrients that we need to properly digest and assimilate the protein in meat. Native Americans and other traditional cultures knew that if they ate their meat without its fat, they would get sick. Clinical studies have confirmed the wisdom in this rule.9 Since Sequoia Academy puts an emphasis on providing protein in all of its meals, this information is especially pertinent. To provide a variety of good fats, I also use cold pressed extra virgin olive oil and a small amount of cold pressed flax oil in hummus, mayonnaise and salad dressing.

Because the school is new and is still held in the founder's house, it follows the WECA (Wisconsin Early Childhood Association) requirements for meals and snacks. WECA is a program that reimburses daycare providers for healthy meals served to children in their homes as long as those meals meet certain requirements. We have to serve a grain at every breakfast and lunch. We are also required to serve pasteurized milk to every child who is not allergic. We easily meet the other requirements for fruits, vegetables and protein. The WECA program allows the use of certain prepared foods from a master list. The list of allowable foods includes mostly brand names like Tyson and Sysco. If you want to avoid the MSG, *trans* fats, high fructose corn syrup and other additives found in these prepared foods, you have to make your meals from scratch. For me, this was not a problem.

With WECA providing the framework for menu planning and the Weston A. Price Foundation informing my choices of foods, I have been able to plan some pretty good weekly menus. To make it sustainable in my absence, I created a "Kitchen Manual" in a three-ring binder. The manual includes recipes, kitchen regulations, Sequoia's meal policy, information about food allergies and menus. In the shopping section, I put information about pesticide residues in foods and a list of which fruits and vegetables should always be organic (the dirty dozen). In the training section, I included articles from previous issues of Wise Traditions and nutritional information from multiple sources on the benefits of organic butter and other saturated fats for children. I also included information about anti-nutrients in foods and the benefits of soaking whole grains and nuts. I tucked a Weston A. Price Foundation brochure and 2008 Shopping Guide into the front pocket of the binder. I tried to include enough information to help any kitchen volunteers understand why we shop and cook the way we do.

NO ACCOUNTING FOR TASTES

I learned right away that you can prepare the most nutrient-dense (and even delicious) foods in the world for kids and they will still end up in the garbage if the kids don't recognize them. I continue to be surprised by the foods that kids will and won't taste. Some foods that I was surprised to see rejected were individual chicken pot pies, chicken noodle soup, chicken salad sandwiches and beef stew. Baked chicken in any form has never been as popular as chicken nuggets. Fortunately, baked skin-on chicken nuggets are not difficult to prepare with a good pair of kitchen scissors and some wheat free bread crumbs or corn bread crumbs. Fish sticks can be made in a similar way. One girl informed me that she doesn't like chicken without ranch dressing. I discovered that it is easy to make a suitable ranch dressing from yogurt and mayonnaise. Both the Wisconsin Health Codes and the I learned right away that you can prepare the most nutrient-dense (and even delicious) foods in the world for kids and they will still end up in the garbage if the kids don't recognize them. USDA school lunch program stipulate that yogurt must be purchased rather than homemade.¹⁰ I get the best organic, whole milk yogurt I can find. Kids who are allergic to milk get either mustard or ketchup, both of which can be enhanced with sauerkraut juice to make a pro-biotic dip. I make large batches of homemade ketchup and freeze it in small containers to keep it within the safety guidelines for group child care kitchens.¹¹

I have found that many students will eat the "plain cheese" pizza in which the meat and vegetables are all pureed into the sauce, but they will not touch pizza that has anything on top of the cheese. One girl recognized the spaghetti sauce on her pizza and named it spaghetti pizza. It was a hit!

Of course, every group of children has its picky eaters and it is impossible to please everyone all of the time. I have learned to strive for the least wasting of food. Sometimes this means that I am spending more time in the preparation than I would normally spend when I cook at home. Appearance is important. Clever names for the foods are also helpful. Dinosaur eggs were a popular treat, though somewhat time consuming, made by wrapping hard boiled duck eggs in ground meat sausage and baking them in the oven. Our green eggs and ham are made with plenty of butter, kale and nitrate-free ham rather than the artificially colored and commercial animal products that the public schools use when they celebrate the birthday of Dr. Seuss. I have also found that most foods that are normally fried can be baked instead. Kids love "chips" made from pita bread or corn tortillas brushed in coconut oil or lard and baked. French "fries" can be made the same way.

THE GRAIN CHALLENGE

Brown rice pasta is a necessity in cooking for the kids with food allergies. It can be cooked in broth to enhance the nutrition. The kids never even suspect that they are eating brown rice or broth. In fact, I found that kids will eat most whole grains if they are in a familiar form. Muffins, pancakes, and breads always go over better than porridge or plain cooked whole grains. Soaking the grains ahead of time allows these foods to be prepared in a timely manner with maximum assimilation of nutrients. It also makes the whole grains appear more like white flour in the finished product.

For Sequoia, I chose to do a rotation of whole grains, soaked whenever it was feasible. Without a grain mill, I am somewhat limited in my ability to make breads. I am further limited by wheat and gluten allergies in a few of the children. I have found that pancakes are an easy way to serve whole grains, even some of the less familiar, gluten-free grains. I have also found that the kids want to eat things like "peanut butter and jelly pancakes" even when they are actually made with almond butter and all-fruit jam. If I had called them "amaranth pancakes with crispy nut butter," I'm sure that many of the kids wouldn't have been so eager to taste them.

When I don't have the time to make pancakes or soaked "quick" breads, I rely on brown rice tortillas, sprouted corn tortillas, and sprouted seven-grain bread made by Food for Life. My greatest disappointment is that I can't find properly prepared gluten-free bread with acceptable ingredients. As with any situation, I do the best that I can within my limitations of time and resources. I try to plan menus that minimize the use of bread, and when necessary I use the best gluten-free bread I can find. I did recently find a source for sprouted wheat, soaked granola and crispy nuts made locally in a commercial kitchen. These foods will be a helpful addition to our meal program.

The daily kitchen staff (either myself or a parent volunteer) typically spends four to five hours preparing, serving and cleaning up after meals. There is usually enough prep time between breakfast and lunch to get everything ready for the next day. I recently began distributing the menu to parents. I provide a glossary of terms rather than a preparation list. I try to define any unfamiliar words, such as quinoa, teff or hummus, and I add interesting facts about the foods from some of my favorite cookbooks.

MIGHTY MEATS

Sausage was such a popular breakfast item that I had to find a practical way to make it in the morning. Rather than buying expensive pre-made sausages with questionable ingredients, I found a way to make our own. I used the *Nourishing Traditions* recipe for turkey breakfast sausages¹²

Dinosaur eggs were a popular treat, though somewhat time consuming, made by wrapping hard boiled duck eggs in ground meat sausage and baking them in the oven.

WEEKLY MENU

Here is a sample weekly menu. Sequoia Academy offers breakfast and lunch every day with an emphasis on providing high quality protein at every meal. We also provide a snack, which I have not included on this menu. Snacks can be a great opportunity to make use of leftovers.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
BREAKFAST Brown Rice/ Quinoa Pancakes Beef Sausage Bananas Milk	BREAKFAST Oatmeal with Coconut Sprinkles Scrambled Duck Eggs Strawberries Milk	BREAKFAST Sweet Potato Millet Muffins, Fruit, Turkey Sausage, Milk	BREAKFAST French Toast made with Duck Eggs, Clarified Butter, Fruit Sauce, Milk	BREAKFAST Soaked Granola, Yogurt Berries or Bananas, Milk
LUNCH Brown Rice Pasta cooked in Beef Broth, Tomato Meat Sauce Steamed Green Beans Lettuce Salad with Ranch or Honey Mustard Dressing Milk	LUNCH Fish Burgers with Kale Sour Cream and Chives Gluten Free Corn Bread Carrot Salad, Steamed Broccoli or Zucchini Milk	LUNCH Chicken Nuggets Ranch Dressing or Ketchup Grated Vegetable Salad Steamed Green Beans Milk	LUNCH Cheese Pizza, Tomato Meat Sauce, Fresh Vegetable Sticks with Ranch Dressing or Honey Mustard, Steamed Pea Pods or Kohlrabi, Milk	LUNCH Sunflower Butter and Jelly Sandwiches Carrot and Celery Sticks Navy Bean Hummus Organic Applesauce Milk
ADVANCE PREP Soak oats. Make extra tomato sauce and freeze for Thursday. Soak cornmeal and rice flour for corn bread.	ADVANCE PREP Soak millet and buck- wheat for muffins. Defrost ground turkey. Defrost chicken. Defrost ketchup.	ADVANCE PREP Defrost tomato sauce. Make extra ranch dressing. Soak navy beans.	ADVANCE PREP Cook navy beans (start early). Make sandwiches. Wash and cut extra veggies for tomorrow. Make hummus.	ADVANCE PREP No kitchen staff. Field trip day.

to come up with a spice mix that I could make in large batches and add to ground meats as I cooked them. All I have to do is put whatever kind of meat I want in the fridge to defrost for the following day. The next morning, I just mix in two teaspoons of the sausage spice mixture and a generous teaspoon of sea salt per pound of ground meat. I am conservative with the spices because young kids seem to prefer just a hint of sausage flavor. For ground chicken or turkey, I always add some fat to the meat. Lard and coconut oil both work well. I originally made the ground meat into little sausage patties. After a while, I switched to just browning and chopping the meat into crumbles because the younger kids prefer their sausages cut up anyway.

Ground meats can also be enhanced with a portion of ground heart or liver, rather than the

soy protein that is popular in many public school lunches. I like to make a large batch of spaghetti sauce on Monday, using a ratio of three pounds of ground beef to one pound of ground liver. The food processor is especially helpful for kids who don't like the texture of meat. I immediately freeze the extra sauce to use on pizzas later in the week. Pizza can be as simple as tomato meat sauce spread on a brown rice or sprouted grain tortilla and sprinkled with organic cheese or goat cheese.

PARTNERSHIPS WITH LOCAL FARMS

One fabulous thing about Sequoia Academy is that it has been working with local farms from the beginning. Two different CSA memberships provide a variety of vegetables. Other local farmers sell us eggs, duck eggs, grass-fed beef, chicken, pork, lamb, goat cheese, lard and organ meats, often at a discount. We are currently in the process of obtaining a supply of ground organ meats along with frozen hamburger from one of our favorite farms. We are required to use pasteurized dairy products, though some parents choose to have their children bring their own raw milk in labeled containers.

Many studies have shown the benefits in letting children grow their own food and spend time in the garden. Since Sequoia is still small and still looking for a permanent location, it was not practical to plant our own garden this year. Fortunately, our close relationship with one of our CSA farms turned into several field trip opportunities. In early spring the kids visited the farm to see how maple syrup is made. They also got to gather their own eggs and see young carrots and turnips coming up in the hoop house. Later in the summer, they had a blast chasing guinea fowl through the gardens and eating pea pods right off the plants. I joined them in eating the fresh pea pods. The stomach ache I had the following day made me vow to put more steamed vegetables on the menu instead of raw. When I served steamed kohlrabi the following week, I reminded the kids that kohlrabi was the plant we saw at Wright Way Farm the previous week that looked like little baseballs with stems. They loved it!

The CSA memberships provided their challenges as well. Early spring began with lettuce, lettuce and more lettuce. No matter how creative you are in cooking, you can really only get the kids to eat a small amount of lettuce. I ended up encouraging large salads for the adults at the school and giving the kids small amounts in their sandwiches and salads. After one student gagged on a piece of steamed kale, I vowed to always chop the greens in the food processor. The chopped greens are great in pizza, eggs and even burgers. Other than lettuce and unprocessed greens, I have found that most kids over the age of four are willing to taste most vegetables and even enjoy them. Once again, home-made "ranch" dressing, hummus, and mustard dips are helpful companions, even to steamed vegetables.

meats can also be enhanced with a portion of ground heart or liver, rather than the soy protein that is popular in many public school lunches.

Ground

Partnerships with other local farms have been priceless for the school, especially when dealing with food intolerances. For example, we are able to get local duck eggs for kids who are allergic to chicken eggs and goat cheese for kids who are allergic to cow's milk. We are also able to buy lovely golden lard from pigs that eat a natural diet free of soy. Another farm sells us large stewing hens for a very reasonable price and gives us a discount on bulk orders of grass-fed hamburger.

USDA REGULATIONS

As the school grows and moves to its new location, we will no longer be on the WECA program. Instead we will be using the USDA national school lunch program. In looking ahead, I see that many of the USDA beliefs and values are compatible with our present system of nutrient dense local foods. They discourage the use and sales of FMNV (Foods of Minimal Nutritional Value), though these foods include mostly candy and soft drinks.13 I would like to expand the list to include refined flour and processed vegetable oil. They do recommend meeting the nutritional requirements through the use of whole foods rather than highly fortified foods. Though they add that, "This research is still in its early stages and there is much to be learned."14

The USDA encourages partnerships with local produce farms in order to encourage vegetable consumption.¹⁵ Unfortunately, it makes no mention of local meat or egg farmers. We are concerned that at some point in the near future the USDA will include a rule that schools can only buy meat from farms who register their animals with NAIS. If that happens, we may have to choose between participating in the national school lunch program and opting out of the program in favor of supporting our local farms. The small reimbursement we can get for meals served under the program just might not be worth it.

To be eligible for the national school lunch program, schools are required to submit menu plans that meet the Dietary Guidelines for Americans. These guidelines, which have been heavily influenced by the processed food industries, stipulate that the meals can have no more than thirty percent of calories from fat and less than ten percent from saturated fat. Fortunately, the menus can be averaged out over the course of an entire week. I am curious to see how my menus will compare. I can only guess that the wide variety of vegetables and whole grains will contribute to helping keep the total fat within its required limits. Our once-a-week use of nut butters and nuts instead of meats will help keep the saturated fats low, but most likely not as low as is required.

We are limited in our use of legumes because of food allergies. I am looking for ways to get around the low saturated fat requirement without resorting to nonfat milk and cheese substitutes. Perhaps we can offer butter and clarified butter at the table without including it on our menu? Another option might be to offer one lunch a week that is based on well-soaked and well-cooked beans or lentils. We can offer a substitution of meat for children with allergies.

The USDA is now requiring schools to offer more than one choice in fat content for milk, with an emphasis on lowfat and nonfat milk. Schools are even encouraged to offer "flavored" milk.¹⁶ Some of the children at Sequoia already like to add water to their whole milk. I am guessing this impulse comes from drinking reduced-fat milk at home. I would rather have them drink watered down milk than serve them reduced-fat milk with its extra burden of nitrates and oxidized cholesterol from the nonfat dry milk that is added as part of the industry standards.¹⁷ The dry milk also increases the protein content of the milk. Remember that consuming protein without fat is not a good idea for anyone.

We are definitely going to just say no to the irradiated meat that is offered as one of the USDA commodities.¹⁸ The USDA also adds textured vegetable protein made from defatted soy flour¹⁹ to some of its ground beef in order to reduce the cost and fat content of the meat. While the high pressure and heat of the extrusion process used to produce TVP may reduce the mineral blocking phytic acid and other anti-nutrients, it also alters the structure of the proteins.²⁰ We are off the hook for adding the extruded soy protein to our meat due to known soy allergies. (In fact, we are seriously considering making our new kitchen both soy- and peanut-free.) Instead, we have been adding nutrient-rich organ meats to our hamburger. I was relieved to find that organ meats are in the USDA database of acceptable foods.²¹ I am guessing that we are the only school in our area that uses them on a regular basis.

The USDA tracks the protein, calcium, iron, vitamin A, and vitamin C in the menus and assumes that the other necessary nutrients will accompany these important five.²² I am not worried about meeting the recommendations for any of these nutrients with our current focus on providing a wide variety of foods for our students. My biggest concern is the low saturated fat requirement.

According to the USDA guidelines, substitutions made for children with food allergies don't have to be included in the nutritional analysis. To me this means that the children with allergies could get meat (even fatty meat) instead of dairy products and legumes. I think the original intent, however, was to allow schools to offer rice milk and soy milk. I have already taught one of the Sequoia mothers to make coconut milk tonic for her son. Hopefully parents who want to provide good alternatives to pasteurized milk, such as raw goat milk and coconut milk tonic, will still be able to do so.

The USDA website boasts of its "improvements" in reducing the saturated fats in the National School Lunch Program. While researching the program, I noticed that it was only within the last year that shortening was taken out of the commodity program, while butter was removed back in 1997.

If they are not using butter and avoiding *trans* fats, I can only guess that they are using plenty of processed vegetable oils. My hunch is confirmed when I notice vegetable oil available by the gallon on the list of commodities. I find it ironic that these liquid vegetable oils do actually contain *trans* fats from the refining and deodorizing processes. Will Sequoia Academy's use of (largely monounsaturated) lard help keep its saturated fat content within the ten percent limit? Can we write low fat recipes but use a generous hand in enriching the meals that we serve with plenty of real butter or coconut oil?

As I was training our new volunteer cook, I commented to her that I go easy on the butter for the kids while I proceeded to add half a cup of clarified butter to the pan of oatmeal (16 servings). She laughed at me until I explained that at home I normally add about half a stick of butter to my own personal bowl of oatmeal and eat it in one sitting. Because she had bought into the idea that fat makes you fat, she was amazed that I am so thin. The USDA database lists butter alongside margarine and suggests 1.1 pound of butter per 100 servings. If you do the math, you will find that I really added only slightly more than the recommended amount to the oatmeal. Of course, we served the oatmeal with sausage and whole milk.

Partnerships with other local farms have been priceless for the school, especially when dealing with food intolerances. For example, we are able to get local duck eggs for kids who are allergic to chicken eggs and goat cheese for kids who are allergic to cow's milk.

As I write this article, our school is getting

ready for its expansion and its participation in the National School Lunch Program. Soon I will receive training in menu planning and nutrition from the USDA. I'm sure it will be both interesting and frustrating. The website for the National School Lunch Program has an incredible amount of resources. Unfortunately the lowfat dogma is found throughout the entire website. I notice that there is even a link to a vegan recipe website from the vegetarian resource group. I have to wonder whether we will ever see a link to the Weston A. Price Foundation website. The thought makes me want to start converting recipes in the hopes of making a database of traditional food recipes for institutional use.

I look forward to being able to write more in the future about the Sequoia Academy lunch program and the recipes that I create to be able to properly nourish our children while complying with the USDA's standards. I also look forward to working for positive change for all schools. Let's all work to get soy protein out of our school lunches and get the saturated fat back in! My hope is that the children at Sequoia and my own daughter will not have to suffer the health problems associated with a lowfat diet, too much soy, and too many poorly prepared whole grains. Most of the following recipes are designed to feed thirty elementary school students and three or four teachers in a family style setting. The meat main dish recipes meet the protein requirements of the USDA guidelines. The fat content will depend on the type of meat used and how "generous" you are when preparing the meals. The serving size for meat is one ounce of cooked meat. Children over the age of ten are supposed to receive one and a half ounces of meat or equivalent. Recipes will have to be adjusted slightly if you are cooking for students in the older age group.

My own experience suggests that kids will eat the right amount of calories for their needs if they are offered a variety of nourishing foods that they enjoy. We do put limits on sweets and fruit because they will consume those foods in

MAKING IT AFFORDABLE

It is important for schools to make nutrition a priority. Well-nourished children are better able to pay attention and learn. Still, it is sometimes difficult for parents and school administrators to understand why we might want to pay more for high quality food. More than that, both public and private schools are notoriously underfunded. Here are some ways to help pay for your school's healthy meal program:

- Work closely with local farmers. Local farmers understand that when they support a school, everyone benefits. Sequoia promotes our favorite farms to the parents and families we serve. We even have an agreement with a local CSA that they will donate \$75 of every full share that is purchased as a result of our referrals. The CSA makes a weekly delivery right to the school, making it easy for families to pick up their vegetables at the same time they are picking up their kids. Some day when our school has older children, we will offer work study opportunities that allow the children to help out at the farms with various chores.
- Purchase items that you can safely store in bulk. This includes whole grains, frozen meat, sprouted tortillas, crackers and canned coconut milk. Talk with your local natural food store or co-op about getting a discount for the school.
- Minimize junk. Processed organic foods, such as boxed macaroni and cheese, frozen pizza and cold cereal are even more expensive than their conventional counterparts. They offer little nutritional value for their cost.
- Some natural food companies offer coupons and even donations for schools using their products. Check out their
 websites or write to some of your favorite companies and ask. Local bakeries and other businesses may also offer
 support in the form of money or food.
- Buy extra produce during the summer and freeze it. Berries are especially easy to freeze. Wash them and spread them out on a baking sheet. Freeze the berries on the baking sheet before transferring them to plastic freezer bags.
- Consider offering meals to teachers and staff for a donation or fee. We offer our delicious meals to our staff and volunteers in exchange for a donation to our meal fund. As an added benefit, this program encourages the teachers to eat with their students and set a good example at the table.
- You can purchase some organic fair trade coffee and make a fresh pot every morning. Parents and teachers can choose to drink the school coffee (nicknamed Our-Bucks) and donate to the school the money they would have spent at a nearby coffee chain. You could also offer muffins and other treats to accompany the coffee. Parents may even be willing to donate baked goods for the cause. It's like having a bake sale every day!
- Publish a cookbook and sell it to help fund the meal program. You can even include healthy cooking advice in your book. There are websites to help you create and publish your cookbook, such as www.cookbookco.com and www. thesecretingredients.com
- Have a local dinner benefit for your school. Check out the Organic Valley Earth Dinner website http://www.earthdinner.org/ or just plan your own. Local farms may even donate food or silent auction items for the cause.

excess. We also made a rule that the children have to eat most of their food before getting seconds on any one item. Each school will have to figure out what works best for their own situation, keeping in mind that children learn best from example.

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- 25.http://teamnutrition.usda.gov/Resources/FBG_Section_5-OtherFoods. pdf, Food Buying Guide for Child Nutrition Programs, Section 5. 26.http://www.fns.usda.gov/cnd/, USDA Food and Nutrition Service.

WINNING RECIPES FROM THE LUNCH LADY AT SEQUOIA ACADEMY

DUCK EGG MAYONNAISE

I developed this recipe in order to have a cooked egg mayonnaise that would be suitable for kids who are allergic to chicken eggs but can have duck eggs.

4 large duck eggs 1 teaspoon prepared mustard 3 - 4 tablespoons apple cider vinegar or rice vinegar 3/4 - 1 cup olive oil Salt to taste

Place the duck eggs in a pan with water to cover it by one inch. Bring to a gentle boil and allow eggs to boil for about five minutes. Remove the pan from the heat and run cold water into the pan to cool the eggs. Optional: Place the eggs in the freezer for ten minutes. This will allow you to peel them more easily. Peel the eggs. The whites should be firm and the yolks still a bit soft. Process the eggs in your food processor with the mustard and vinegar. Add the oil slowly while the processor is running. Salt the mayonnaise to taste and use for your favorite sandwich or dressing.

"RANCH" DRESSING

I had to create a Ranch dressing recipe by request. This one is a great pro-biotic complement to salad, chicken fingers, vegetables and more! For kids who are allergic to chicken eggs and cow milk but can have duck eggs and goat milk, you can use goat milk yogurt and duck egg mayonnaise.

1 pint whole milk yogurt 1 cup high-quality mayonnaise or home-made mayonnaise 3 tablespoons finely snipped fresh chives 1 tablespoon fresh parsley or 2 tablespoons dried parsley 1/4 teaspoon chili powder Salt to taste Mix all of the ingredients and beat with a fork until it is smooth and creamy.

CARROT SALAD

2 pounds carrots, grated 1 large apple, grated 2 tablespoons olive oil 1 teaspoon flax oil Juice of one lemon 1/2 cup crispy sunflower seeds

Mix together the carrots, apple, oil and lemon juice. Sprinkle on the sunflower seeds just before serving.

SKIN-ON CHICKEN NUGGETS

Leaving the skin on the chicken makes these nuggets especially juicy. The skin seems to melt into the crispy coating, making them seem like fast-food chicken nuggets, though they are much better. I use the squash purée as a substitute for the eggs when cooking for kids with egg allergies. I have also had good results with melted coconut oil or a mixture of squash and coconut oil.

10 pounds of chicken pieces with bones and skin, such as thighs or breasts
6 tablespoons arrowroot starch
5 eggs, beaten or 1 1/2 cup of carrot or squash purée
6 cups bread crumbs or corn bread crumbs
2 teaspoons salt

Preheat the oven to 350 degrees. Cut the chicken away from the bones and into small nuggets or strips, leaving the skin on as much as possible. Kitchen scissors make quick work of cutting up the chicken. (Make sure you toss your bones into your stockpot or freeze them to make stock another day.) Mix the bread crumbs and salt. Make a plate of arrowroot starch, a bowl of egg or squash and a plate of bread crumbs. Roll the chicken pieces in the arrowroot and shake off excess. Follow with beaten egg or squash and then the breadcrumbs. Place the nuggets on an ungreased baking sheet (with edges) or in a large baking dish. Bake the chicken for 45 minutes to one hour, turning once.

FISH BURGERS

I was worried that the kids wouldn't eat these "burgers" because they are green and fishy. They turned out to be one of our most popular main dishes. They are especially good with home-made Ranch dressing or just simple sour cream and chives (for those who can tolerate dairy). The puréed fish bones provide much-needed calcium to children who are allergic to milk.

4 cans (14 3/4 oz) wild alaskan salmon with bones
8 medium potatoes, steamed and mashed
3 tablespoons snipped fresh chives
2 handfuls fresh spinach or kale leaves
3 tablespoons gelatin dissolved in 3 tablespoons hot water (or 3 large eggs)
4 cups gluten-free bread crumbs or corn bread crumbs

4 cups gluten-free bread crumbs or corn bread crumbs 1/4 cup fresh lemon juice

Process the fish with the bones in batches in the food processor. Process the greens and chives until finely chopped. Mix together all of the ingredients and form into small burgers. Grease a large cast iron griddle with lard or ghee and cook the burgers until golden. You may also form the mixture into a few loaves and bake it in greased loaf pans in the oven, but kids really seem to prefer the burgers. They are worth the extra time spent preparing them.

HEARTY CHILI

I served this to the kids with some fresh avocado and corn bread based on the recipe in *NourishingTraditions*, page 486. It is also good over brown rice pasta. The ground heart is optional, but it adds some vitamins and coenzyme Q_{10} .

- 3 pounds ground beef or venison
- 1/2 1 pound ground beef heart
- 1 medium onion, chopped
- 3 cloves garlic, crushed
- 3-4 pinches crushed red pepper
- 1 tablespoon salt (or slightly less)
- 1 1/2 tablespoons paprika
- 1 teaspoon black pepper
- 3 tablespoons chili powder
- 1 tablespoon cumin, powder or seed
- 2 1/2 cups home-made beef stock or water

You can grind the heart yourself in a food processor or use ground mixed organs from a local farm. Brown the hamburger and heart with the onion in a heavy soup pot, chopping it up finely with your spoon. Add the garlic and cook for a few minutes. Add the spices and cook, stirring for one minute. Add the beef stock and simmer for two hours or cook in a crock pot. You may also add beans.

SAUSAGE SPICE MIX

Adapted from the *Nourishing Traditions* recipe for Turkey Breakfast Sausage, pages 363-4.

1/4 cup each cumin, marjoram, pepper, nutmeg, oregano, and ginger 1/2 cup each dried basil, thuma case

1/2 cup each dried basil, thyme, sage

Mix the spices together by putting everything into a quart jar and shaking it vigorously. Add 2-3 teaspoons of the spice mix and 1-2 teaspoons of sea salt per pound of ground meat. You can also mix in a small amount of ground organ meats if desired. Form the mixture into patties or just chop it up and brown it in a cast iron skillet.

SPAGHETTI PIZZA

4 tablespoons olive oil
4 tablespoons coconut oil
2 large onions, chopped
6 - 8 carrots, shredded or chopped
6 cloves garlic, crushed (optional)
1 cup spinach or kale leaves
4 24-ounce jars strained tomatoes
2 7-ounce jars tomato paste
3 tablespoons oregano

s tablespoons oregano

3 tablespoons basil

- Salt to taste
- 2 pounds pork sausage or leftover home-made sausage 15 flatbreads or tortillas (sprouted grain or brown rice)

4 pounds shredded cheese or goat cheese

Gently heat the oils in a saucepan and add the onion and carrots. Cook, stirring, until the onion is translucent. Stir in the garlic and spinach and cook for one minute more, just until the spinach is wilted. Add the remaining ingredients except the sausage, tortillas and cheese. Transfer the mixture to a food processor and purée in batches until smooth. Return the puréed sauce to the pan and cook gently to allow the flavors to meld. Purée the meat in the food processor and stir it into the sauce. Lay out your flatbreads on baking sheets. Top each one with sauce and then cheese. Bake in a 350° oven for about fifteen minutes until the cheese is melted and bubbly. Allow to cool slightly before slicing and serving. Serves 30.

CHINESE-STYLE MEAL

This is a very simple meal that is better than the food served in most Chinese restaurants because it relies on old fashioned stock rather than MSG to get that robust flavor. I used sea salt, but you could also use natural soy sauce if your students are not allergic to soy. You can also substitute beef and beef stock in place of the chicken or use pork for a very traditional Chinese meal. For young kids who don't like their food mixed together, you can serve the meat on the side rather than incorporating it into the stir fry. We steam and serve the pea pods on the side as well because some kids are allergic to peas.

4 cups brown rice

7 1/2 cups chicken stock or a combination of stock and water

Rinse the rice and place it in a deep saucepan with the stock. Bring it to a boil and skim off any foam that comes to the top. Reduce the heat to the lowest possible. Cover the pan and allow the rice to simmer for two hours until all the liquid is soaked up and the rice is soft.

6 tablespoons chicken fat, coconut oil, olive oil or lard
3 onions, chopped
8 carrots, chopped
6 stalks celery, chopped
Other fresh vegetables (pea pods, bok choy, cabbage, etc.)
Meat from 4-5 cooked chickens (left over from making stock), chopped
4 cups chicken stock
8 tablespoons arrowroot powder
1 tablespoon sea salt or to taste

Heat the fat or oil in a heavy pan. Add the onion and carrots and stir fry until the onion is beginning to become soft and translucent. Add the celery and other vegetables and the stock. Put the lid on the pan and steam for about 2-3 minutes until the vegetables are beginning to get tender but are still brightly colored. Add the chicken. Dissolve the arrowroot in about 1/4 cup water. Add this paste to the cooking vegetables and heat everything just until the sauce is thickened. Season it to taste with salt (or soy sauce) and serve with the rice.

BETTER THAN HAMBURGER HELPER

This is a very easy and satisfying casserole. You may want to serve the meat and vegetables separately if you are feeding very young children who don't like their food mixed together

1 gallon beef stock

4 – 12 ounce packages brown rice pasta (Tinkyada is a good brand)

4 pounds ground beef (or a mixture of ground beef and ground organ meats)

1 tablespoon salt

4 onions, finely chopped

6 – 8 carrots, peeled and sliced small

3 – 4 heads of broccoli or cauliflower

Additional vegetables may be added or substituted, as desired Clarified butter or beef fat, if desired

Bring the stock to a boil in a large soup pot. Stir in the pasta and return to a gentle boil. Reduce the heat to a simmer, place the lid on the pot, and simmer for about fifteen minutes, stirring occasionally. While the pasta is cooking, brown the ground beef with the onions until it is cooked through and the onions are translucent. Steam the vegetables on the side until tender or add them to the cooking pasta. When the pasta and vegetables are tender, mix everything together and stir in the butter or fat. It is also good with two cups of puréed squash or carrots added to make it more "cheesy."

GLUTEN-FREE, CASEIN-FREE MILLET SWEET POTATO MUFFINS

This recipe makes 12 muffins or 24 mini muffins. It is a smaller recipe than the others because it has to be made in a blender. You can double the recipe, but you will have to process it in batches. You could use this recipe to make a batch of muffins for the kids with food allergies and make soaked spelt muffins for the other students.

cup whole millet
 cup whole, unroasted buckwheat
 cups warm water
 tablespoons apple cider vinegar or brown rice vinegar

Mix together the grains, vinegar, and water and soak overnight.

- 2 medium sweet potatoes, steamed, chopped and peeled
- 4 tablespoons coconut oil, melted
- 2 tablespoons honey
- 1 tablespoon molasses or sorghum syrup
- 1/3 2/3 cup water (just enough to make it blend freely)
- 1 teaspoon baking soda
- 1/2 teaspoon salt
- 1 teaspoon cinnamon
- 1/2 teaspoon ginger
- 1/4 teaspoon nutmeg
- 1/2 cup raisins, optional

Preheat the oven to 325.° Line 12 muffin cups with unbleached liners (or grease them with lard). Place the chopped sweet potatoes in the bottom of your blender. Drain and rinse the millet and buckwheat. Add the rinsed grains to the blender with the remaining ingredients, except the raisins. Blend the mixture until it is smooth, stopping periodically to scrape down the sides. A high speed blender with a "tamper" works really well for this recipe. Otherwise, you might have to add a little bit more water to get it to blend properly. Stir in the raisins. If the batter is very liquid, you may want to stir in a quarter cup of coconut flour. Divide the batter between the muffin cups and bake until they bounce back to your touch, about 20 - 25 minutes.

GLUTEN-FREE, CASEIN-FREE HAZELNUT ANIMAL CRACKERS

I made these for an after-school enrichment activity. The kids enjoyed rolling and cutting out the cookies. They can also decorate them with shredded coconut, nuts, and dried fruit. If making them to serve as a snack, you can just cut them into squares with a knife. They make great gluten-free graham crackers.

1/2 cup crispy hazelnuts or sunflower seeds
1/2 cup coconut flour
1/2 cup masa corn meal or sprouted buckwheat flour
3/4 cup arrowroot or sweet rice flour
1/2 cup coconut oil or ghee
2 duck eggs or 3 chicken eggs
1/3 cup Rapadura sugar or date sugar
2 tablespoons honey
1/2 teaspoon pectin or xanthan gum
1/2 teaspoon cinnamon
1/2 teaspoon baking soda
1/4 teaspoon cream of tartar
1 teaspoon vanilla extract
2 - 4 tablespoons water

Grind the crispy nuts in the food processor. Pulse in the remaining ingredients, except the water. Add the water one teaspoon at a time, blending until the dough is smooth and soft. The texture should resemble sugar cookie dough. If it is too soft to handle, refrigerate it for about an hour until firm. Preheat the oven to 300.° Roll out the dough, using arrowroot flour to prevent sticking. Cut with cookie cutters and carefully place on a parchment-lined baking sheet. Baking times will vary depending on the size and thickness of the cookies. They may be ready in as little as six minutes. They will be golden and fragrant but still a little soft. Cool the cookies on the baking sheet before storing them in a tightly closed container in the fridge.



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Building a Local Food Buying Club Real Food from Real Farms

By John Moody

The time for locally oriented food distribution systems has never been better. With dramatically rising food costs threatening to break old inflation records, deadly tomatoes and other contaminant-ridden produce filling the shelves of conventional mega-stores, and inhumane animal practices resulting in pollution, disease and consumer danger all garnering more and more mainstream media attention, the average person is finally waking up to the reality of our impoverished, impersonal, imbecilic and unsustainable food system.

John Moody and his wife lessica are WAPF chapter leaders in Louisville, Kentucky. For more information about Whole Life Co-op, visit their website: www. wholelifeco-op. com.

More important, many are now searching for alternatives. Weston A. Price Foundation chapter leaders, members, supporters and friends, with their accurate knowledge regarding nutrition, farming and other issues, are in a perfect position to help build these alternatives in their communities. We just need to think about how.

In the following few pages, we will offer a brief summary of how our local foods buying club started, has grown and changed, and how we handle finding members, farmers and companies to work with, how we manage distribution, share the workload, cover the expenses and structure the leadership. This article is by no means exhaustive, but we hope it will be instructive and encouraging as to what can happen when average individuals band together to bring about community change on many levels.

Our group started out as a few families ordering some cheese and a few other products, but still individually picking up milk and other items from all over the city.

SMALL BEGINNINGS WITH A LARGE ANIMAL

A little over two years ago, my wife and I, along with some friends, decided to purchase a locally raised, grass-fed cow. We had been reading about nutrition, pollution and economics for a number of months, and this was our first big foray into actual practice outside of our weekly trip to the farmers' market. We also bulk-purchased six deep freezers from a local appliance store. The arrangement went so well that our friends and others began to ask whether it could be done with other products...and our group was born. Through our network of friends we spread the word about two meetings we had scheduled. We had a remarkably surprising turnout of around thirty families, far more than we had anticipated.

The first twelve to eighteen months was a real joy and challenge. We had our share of good ideas and bad ideas, good experiences and bad experiences. Some members came to us and shared how their health had drastically improved. Others emailed us saying that their muffins had turned out like small, speckled river rocks.

PRIORITIES, PEOPLE AND PROJECTS

People are the most important part of a local foods system. The individuals and families are what will make or break your group. They are your most valuable assets. They are the ones who will compliment or complain, support or sabotage, encourage or infuriate you on a weekto-week basis. As you learn and make modifications, mistakes and improvements (and our members can vouch that we have gone through lots of all three of these), they will either be patient and helpful or irritable and difficult.

Thus, we do a large amount of up front education with members to ensure they understand both the why and the how of what we are doing. Everyone who joins the group knows our WAPF-oriented nutritional philosophy, our goals, the general products we carry—and do not and will not carry. While it adds a great deal of time to individually meet with every prospective member, we have found it to be invaluable to the health and growth of the group.

Second, the farmers and products are central. Most people looking for such groups are seeking particular types of local farm and other products raised in particular ways. In our area, finding farms to work with has been relatively easy, but that may not be so in other places (see side bar for help on finding local farmers). We are fortunate to have over fifteen local farms of varying sizes, which supply our group with a wide array of wonderful local foods.

The most important (local, if possible) farm products a group should carry are real milk, fresh pastured eggs, raw milk cheeses from grass-fed cows, pastured beef, lamb and chickens, along with seasonal Community Supported Agriculture (CSA) opportunities and/or produce. By working with just a few select secondary companies (see side bar for recommendations), you can offer your members almost complete "one-stop" shopping, allowing families to get fresh milk, pastured eggs, and produce along with laundry detergent and toothbrushes all at a single pickup. That raises the question of when and how the items will get to the members.

DISTRIBUTION AND INFRASTRUCTURE

Our group started out as a few families ordering some cheese and a few other products, but still individually picking up milk and other items from all over the city. Different orders were shipped to different people's houses and people went to the appropriate place whenever an order arrived. For many reasons, we nixed the above model. Companies didn't like having so

HOW TO FIND INTERESTED PARTICIPANTS FOR YOUR GROUP

- Hold interest meetings and advertise them by word of mouth among your friends and family.
- Have members post info at their work and social message boards.
- Contact local WAPF chapter leaders, chapters and other similar groups.
- Create a listing for the group at Local Harvest, www.localharvest.org.
- Contact various local groups, such as home-schooling groups, churches, and civic grassroots organizations with similar goals and concerns.

many different people handling orders and many families didn't like the approach of driving all over town to pick up their goods.

About six months later, we started meeting once per week for about three to four hours for pickup on the same day as one of our farmer's CSA drops. This marked the first big surge in our growth, as our loose membership's pickup logistics were vastly simplified and one family was chosen to handle a majority of the responsibilities. As we continued to grow, we added an additional day in the morning to better accommodate our various members' schedules and to help some of our farmers spread out delivery of their products over multiple days, allowing them to provide fresher and thus better food while reducing waste and loss.

Optimal pickup locations include a garage, a common room at an apartment complex, or a room in a church or community center, among other options. Such places also have the added benefit of being free or very inexpensive. The type of place a group meets is not nearly as important as the location, accessibility and security (if you are storing anything on site) of the location. We are fortunate to have a good, central location for pickup that allows people from all over the city to participate. Depending on the location of your pickup, be very aware of the reactions of neighbors, neighboring businesses, possibility of break-ins and the like. Sadly, local farmers sometimes face harassment rather than honor in our day and age, as may those who support them.

Also, this is a good time to mention that anyone who is involved in leading such a group or helping distribute real foods should be an active member of the Farm-to-Consumer Legal Defense Fund, as should any farmers with whom you work, in order to provide protection for the group's leaders, farmers and members.

Depending on the size of orders and the types of items your group is receiving, various sorts of infrastructure will be important at the storage and pickup location. You can often get shelving and other needed infrastructure for free or inexpensively by searching around (see side bar). Your group's members are an invaluable resource for finding needed items both for the group and your farmers, and this is one of the many important roles the average member can fulfill.

OPPORTUNITIES FOR EFFICIENCY AND SAVINGS

One of the most important aspects of a local food distribution system is the opportunity to save time and money for farmers and members by making the whole system more efficient and less costly. Our current industrial food distribution system offers people only one type of cost advantage and efficiency—brute size leading to "low prices" and "convenience"—while sacrificing almost everything else. A local food distribution system can capitalize on multiple advantages and efficiencies that also contribute to the well being of everything and everyone involved.

For instance, our CSA farmers used to provide their own waxed boxes that they individually filled for the CSA members. The boxes are fairly expensive and take a great deal of time to fill. We were able to get the boxes for around a quarter of the price our farmer had been paying by working out a deal with a local store (whose waxed boxes had enjoyed a single trip across the continent to our local store and then were being Optimal pickup locations include a garage, a common room at an apartment complex, or a room in a church or community center, among other options.

OTHER SOCIAL BENEFITS YOUR LOCAL FOOD DISTRIBUTION SYSTEM MIGHT ENGENDER

- Serving as a starting place for small cottage industries, such as a local fermented drinks business, a sourdough bakery, or a café that serves real food. Members can begin by trading various items with one another (stock for yogurt, kombucha for sourdough bread) and as interest and opportunity permits, expand into the broader local markets.
- Becoming a powerful tool for political action. A local food group with one hundred or even ten members can be quickly
 mobilized to make phone calls, show up at an important hearing, write letters and emails, pass information along to
 others, and otherwise assist with political/legislative efforts. As many have pointed out, the greatest weapon agribusiness
 has is its financial clout and local power base to apply to politicians and state agencies. One important tool against this
 is large, active, well organized, timely, broad-based citizen support from across social, ethnic, cultural and geographical
 lines. A local food buying club can actively foster this type of support. Many Americans are completely in the dark about
 what is happening on a number of fronts (NAIS, GMOs, etc.) and other matters until it is too late for them to act.

promptly recycled, along with a large amount of other reusable produce containers). We now have our members fill their own boxes each week at pickup. These two simple changes resulted in at least a one thousand dollars worth of savings and four hours per week less work for our farmers, savings they were able to pass on to our members, and an environmental gain for the whole planet. Egg cartons and flats can be reused, saving twenty to forty cents per dozen. Eggs can be delivered on flats rather than in cartons, saving the farmer time, and members can bring their own cartons to the pickup place to fill.

The group can bulk-purchase its own milk bottles at a substantial savings (for instance, the Ball wide-mouth half gallon mason jars can be purchased wholesale for under two dollars per jar, almost half the cost of the glass milk jugs so popular in many stores), and then members can be responsible for cleaning their own jugs (farmers should still sanitize the jars if possible, especially so if doing a bottle pool). Families can be educated and trained to collect egg shells and other compostable waste that can be brought to pickup and, from there, back to the farm where it provides free enrichment and remineralization of the soil rather than enlarging a landfill.

If your group is very large and working with many farmers, certain farm needs can be bulk-purchased on behalf of many farms at once. Various farms can team up for delivery to the pickup location, drastically decreasing time and transportation costs. Alternatively, members who live close to the farms can be a drop-off point for the farmers or pick up from them and then, since they are coming into town anyway, bring these items with them to the pickup place. When the group purchases beef, they can purchase the whole steer and keep all the organs, beef fat and bones, for making stock and soaps out of what otherwise would become waste for someone to deal with or profit for someone else. After the

HOW TO FIND LOCAL FARMERS

In our experience, for every one farmer you find via the resources below there are one to four more farmers in the area. Moreover, many smaller farmers/hobby farmers (such as people who keep small flocks of chickens for eggs and thus often produce some of the best eggs but in small surpluses) are almost completely unknown to the average city dweller. Yet, if you find three or four small farms located close to one another, you have a surplus that can feed a dozen or more families and an affordable way to get the food to your group.

Since you will be helping provide food for others, you want to make sure that you thoroughly research the prospective farmers' practices before offering their products to your group. Also, depending on your area, don't be too particular (or too lax). For instance, in Kentucky, finding grass-fed and grass-finished beef is easy, but finding non-GMO and soy-free eggs or chickens is almost impossible. If you refuse to work with your local farmers because of such things, both parties will lose in the long run. By next year, because our imperfect farmers have had support and help, we hope many will be able to move towards and offer non-GMO and soy-free feeds to their animals.

To find local farmers in your area. . . .

- 1. Visit local farmers' markets and talk with everyone. Farmers usually know where other farmers are located, how they treat and raise their animals and land.
- 2. Visit www.eatwild.com and use their state-by-state directory.
- 3. Visit www.realmilk.com and use their state listings, as real milk farmers often also provide a plethora of other farm products along with milk.
- 4. The farm and garden or general section of Craigslist.com may be a great place to find farmers as in some areas and cities they use this free service to reach a wide region of people. Also, don't be shy about using the Craigslist a city or county over. For example, depending on where you live in Columbus, Ohio, you should also search the Cincinnati, Akron/Canton, and other nearby listings.
- 5. When you or your friends/members are out driving, keep your eyes wide open! Also, before taking family or business trips, map out new routes for common jaunts through areas where farmers may be and encourage your members to do so as well. You and your family will get to see some new (less concrete-filled) scenery and perhaps find a new farmer or two. On our recent vacation, we found fresh local pastured eggs and produce less than a mile from where we were staying that we had missed previous years.
- 6. Community gardens and community gardening groups are popping up all over many cities and towns. These groups may be looking to sell their extra produce to other locals.
- 7. Almost every group of friends has someone into gardening/small scale backyard farming. Don't neglect to support these people! They are an important part of meeting our individual (and national) food demands. More so, they are usually very close by and an easy place to channel compost or to set up a composting system, helping ensure that the food is fresh, nutrient-dense, and affordable.

bones have been made into stock, they can be given to members' dogs or ground up into bone meal for use as a first rate soil amendment for home or farm.

One of the most important ways a group can help their farmers is through providing research, learning opportunities, and fostering cooperation among like-minded farms. For instance, almost none of our farmers knew about the Modern Homestead website of Harvey and Ellen Ussery, which is overflowing with some of the best information on raising food anywhere. Many have implemented ideas they learned from the site to their financial and our food quality benefits. We also distributed a number of articles and links we had come across on pastured poultry pen designs to our farmers, and many of them have told us that the article was invaluable in saving them time and money when building pens this year. Making them aware of and helping them attend conferences and other such learning opportunities is a key way city dwellers can help their farmers and themselves, through better quality, higher nutrient-dense foods over time.

Moreover, these types of opportunities and efficiencies are not optional, but critical, both to the survival of local food distribution systems and the planet that they depend upon. One-way use and consumption of resources is not something our planet can endure from billions of her inhabitants for long (see www.thestoryofstuff. com) and such habits will guarantee the loss of nutrient-dense, traditional foods for our children and grandchildren, not to mention loss of many other priceless treasures of our world.

Products need to be used multiple times, then recycled or otherwise reused, rather than used once or twice and then pitched into our already egregiously overflowing landfills. For instance, a member of a local food group can make kombucha or yogurt for trade with other members in self-capping brewing bottles (such as those made by Grolsch or Fischer) or glass mason jars, which can then be washed and reused hundreds of times or more, creating financial and environmental savings for all (see sidebar for more benefits). These bottles may be procured for free from a local bar or group of people who drink such beers, from yard sales, etc. But if someone is purchasing kombucha or yogurt from three quarters of the way across the nation (or world), such a bottle return and reuse system is completely impractical as a way to reduce waste, conserve resources, or control costs and prices. One system leaves us at the mercy of impersonal, fossil fuel-driven global commodity markets and forces, impoverishing everything it touches. The other helps root us in local communities that depend on wisdom, care, and the renewable energy sources to flourish for generations to come, enriching everyone and everything that is involved.

These types of opportunities and efficiencies exist throughout the local food system but are almost completely impossible to realize on the industrially controlled, chemically dependent, national/global scale of our modern economy. The alternative can only happen on a local-regional scale, and in a sustainable community model. Thus, while food and other product prices will probably continue to skyrocket in cost, shrink in size, and decline in quality, with proper management and wise stewardship our families and communities can enjoy good pricing on superior products while helping our farmers to be more profitable and helping ensure that our children have a planet filled with nutrient-dense foods, healthy and happy animals, and clean air, water, and land—in short, a planet worth inheriting.

Opportunities for efficiencies and savings can be found almost everywhere in a local foods system, and if you come up with or have additional good ideas, please pass them along to others and to us, as we all have much to relearn and regain.

COVERING GROUP COSTS

One problem to avoid is allowing just a few people to bear the group's expenses and workload while others freeload. We were very fortunate that some of our early members, seeing the time and resources we were pouring into the venture, encouraged us to ensure that all the members were sharing in the group's expenses and compensating the head families for their additional labor. When we began to keep track of things better, we realized that there were many expenses that we were personally defraying: refrigeration and freezer space, electricity, cell phone minutes, mileage, postage, paper, computer use, website creation, not to mention the sheer expense of all that time.

Thus, some type of surcharge was needed on items to cover these expenses. In general, we have found that a surcharge of around 15-18 percent is sufficient to cover the group's various expenses and to compensate our lead families. This fee is adjusted up as needed for items that require more time or create more expense and work (for instance, items that require refrigeration, freezer storage, or some other costly form of infrastructure, or items that we have to personally drive out to local farms to pick up for the group). Since many of the products are between 30-60 percent off of retail, our members' final fees are usually substantially below the retail price even with the surcharge. Moreover, on items whose prices are comparable, our members enjoy knowing that their resources are being funneled into the local rather than the big box store economy.

An important issue regarding pricing is that there has to be some incentive for people to become a part of your group rather than going straight to the local farms or the businesses you are working with to get the products. If someone can get eggs from you for \$3 per dozen but for only \$2.50 from the farmer, things just won't work for you, your members, or the farmers. By people pulling together, everyone benefits, but especially the farmers, who can go back to focusing on caring for their land, animals, and families, rather than spending endless hours traveling around their regions and states trying to sell in twenty or thirty hours of driving and delivery time what has already taken them forty or more hours to raise or grow.

MAKING IT ALL HAPPEN: LEADERSHIP

The last key area to discuss is how the group is organized and administered. First and foremost, especially since the group is dealing with people's money, the leader or leaders need to be people of good, proven character. Next, and equally vital, it is important that someone involved with leading the group have good business, computer and communication skills. Depending on the size and complexity of the group, how the books are handled, which companies besides local farms and businesses you are working with, email lists, a website, Excel files, schedules of orders, volunteers—all these will need to be created, updated, posted and amended. These main tasks are, in our opinion, best done by a single person who oversees a head group and who is also actively training one or two additional people or families in case they move, go on vacation, fall ill, or are unable to do such tasks for a time or permanently.

For our group, we have one lead family who oversees the majority of the day-to-day nuts and bolts of running the buying club. We then have an advisory board that takes on specific responsibilities, gives counsel regarding larger decisions, and provides a measure of accountability for the head family. For example, one advisory family helps with finding new local farmers while another volunteers their truck and muscles for our multi-thousand pound beef pickups. Another is building a group directory by the area of town so that our new and old members can more easily find one another in order to foster community and cooperation among the group.

Our individual members prepay for their purchases, some for a few weeks at a time, some for most of the year, providing the group with the necessary capital to place orders and pay farmers while also ensuring that we don't get lemon members who write bounced checks or place false orders and then disappear. Individual members also help with a variety of tasks—setting up and tearing down weekly pickups, researching different topics, speaking at group meetings, picking up for other members and from or for a local farm and so on. To help members know exactly what they are spending, we keep alphabetized Excel spreadsheets that are made available to the members for review and, if need be, correction.

COMPENSATION

Thus, especially if a few members are doing the majority of the work (which is our recommendation) while most other members are offering more occasional assistance with pickups and other facets of the group's life, the lead members/families should receive some type of compensation. For small groups, this can easily be done through free or reduced-price products from the group, but, depending on the group's size, monetary compensation may be appropriate as well. Also, some farmers, following Joel Salatin's example, will offer a certain amount of free food for buying clubs or similar groups depending on the size of the orders, such as five free chickens for every fifty you order. Other farmers may offer a free CSA box for every eight your group signs up for. Some will offer both or some other arrangement. These also need to be integrated into the overall fee and compensation structure of the group.

This compensation should be seen as part of the cost of running the group, just like a website or some other expense, and built into the group's surcharge structure. Especially if the group is large, how to do the above is beyond my expertise and the scope of this article, but at least

MORE WAYS FOR FAMILIES AND FARMERS TO SAVE MONEY AND PREVENT WASTE

- 1. The group can organize orders on behalf of multiple farmers for items such as egg cartons to get a larger bulk discount and save on shipping. Farmers can work together to do the same for feed and other needs. Also, some of our farmers have begun to purchase grain, chicks, and other needed supplies directly from other local farmers, thus removing unneeded middlemen and transportation expenses.
- 2. In our city, we have numerous yard sales and quarterly "trash pickup days," where people throw away lots of things that certainly don't look anything like trash. We have found good quality coolers, hundred-dollar NSF-certified steel racks and other types of shelving, an unending supply of mason jars and much more, as have our members.
- 3. A buying club generates a great deal of packaging materials—cardboard boxes and dividers, biodegradable packing peanuts, and the like. These can be collected and then sold via Craigslist.com or other means to people who are moving, to recycling centers, or to local businesses, turning a waste stream into a revenue opportunity.

may involve tapping the skills of your members, such as an accountant, business owner or lawyer, to get counsel regarding the options, costs and legal and tax implications.

GROWING TOGETHER

The inner workings of a well-organized food buying group may seem a little overwhelming, which is why we close by pointing out that this description depicts what may happen over time as a group grows. It is not where we started, thankfully, or we wouldn't be here now! We were just a dozen families or so ordering some cheese and eggs and milk each week and some other stuff every so often. As our group has grown, our leadership and members have all had the opportunity to grow with it, in our knowledge of cooking, nutrition, ecology, management, website design, teaching and many other skills. Thus, a local foods system grows its members while also growing their food and local communities.

A local foods system can help become the basis for a return to real community, real food, real farming and real living for a nation reeling from more than two generations of synthetic and disconnected everything. Weston A. Price's research, which points the way to the most sustainable methods of farming possible—solar-based, soil-rich, grass-powered—not just for animals and land, but for the people who eat these foods, is a crucial piece of the puzzle to ensure that people have access to sustainable and affordable foods.

SEEING THE END AT THE BEGINNING

When we used to meet with prospective members or chat with friends, I would often remark that one of our goals is to see a day when certain types of companies and farms (ones "that shall not be named") will have to close their doors because the public will no longer eat their low quality, nutrient-deficient, synthetic, GMO- and chemical-laden concoctions, or support their vile practices. It is our hope that a large part of what will make this dream become reality will be the revitalization and growth of tens of thousands of small, local, sustainable farms supported by tens of thousands of WAPF-oriented, local buying clubs. Together we can grow toward this dream. The best is yet to come.

SUGGESTED COMPANIES TO PARTNER WITH YOUR BUYING CLUB

There is a wide array of companies to choose from to supplement whatever your group is able to find locally. Whenever possible, local sources are best for most items. The size, location and needs of your group will help shape which other companies' products you seek to make available to your members.

FRONTIER CO-OPERATIVE

Cost: \$10 one-time membership fee.

Contact info: 1-800-699-3275 http://www.wholesale.frontiercoop.com/

Fair trade and organic herbs, spices, essential oils and teas, along with well over 100,000 other products from other companies, covering everything from organic clothing to replaceable-head toothbrushes. Frontier is a great company for any group of almost any size to be a part of. Low minimum order of \$250 qualifies for free shipping.

TROPICAL TRADITIONS

Health Buyers Club (HBC) or Wholesale.

Cost: A HBC membership runs between \$9.99-\$99.99. Watch for specials if you want a whole year membership. Items on the HBC site often go on sale at prices that match the wholesale price. Wholesale membership is free for those who qualify.

Contact info: HBC, www.tropicaltraditions.com and click on the Healthy Buyers Club link in the upper left corner. Tropical Traditions Customer Service: 1-866-311-262 or http://www.tropicaltraditions.com/customerservice.cfm Wholesale: http://www.tropicaltraditions.com/wholesale.cfm

RADIANT LIFE

Phone: 1-888-593-9595 http://www.radiantlifecatalog.com/

When our group was small, Radiant Life would provide moderate discounts for orders of a certain size, along with reduced shipping costs for our members pulling their orders together. This is a great strategy for small groups just starting out, since if you meet certain ordering requirements (certain case sizes, minimum dollar amount, etc.), most companies will extend some type of discount, even if it is only free or reduced shipping.

For more possibilities check out the WAPF shopping guide or the advertisements in Wise Traditions.

Drink That Milk! Eat Those Peas! Getting Your Family to Eat the Nourishing Traditions Way

By Maureen Diaz

t's a common occurrence in households all across the country. Mom spends a considerable amount of time in thought and preparation to present her family with a healthy, nutritious meal, only to be met with, "Aw, Mom, do I have to eat this stuff?" It can be frustrating, disheart-ening and downright depressing at times.

Offer Johnny a slice of pizza and a Coke and he'll greet you with smiles and cheers. Give Susie a veggie burger and diet soda for dinner and she'll brag to her friends about what a cool mom she has. But prepare homemade vegetable beef soups for lunch, served with a slice of sourdough bread and chunk of raw milk cheese, and they're more likely to turn up their noses and skulk off. What's a thoughtful mother to do? Having been a mom now these last twenty years, and a former kid, I think I can offer you some options to help get your family off to some better eating habits for which they will thank you later. But first, let's go over a few things *not* to do.

I can still remember my family making the transition to healthier eating habits way back when I was about ten years old. We had been accustomed to our Hamburger Helper and Kraft macaroni and cheese with hot dogs when our mother, needing to lose weight and afflicted with various problems, decided to get healthy. Out went the white sugar. Away with the white bread! In came whole grain (cardboard) bread and tasteless turkey burgers. Yum, yum! Thankfully, we still had the homegrown produce that my dad and I worked hard to raise in the summer and which my mother labored to put up for the winter. We kids didn't exactly look forward to mealtime. So we loaded up at the lunch counter at school and invited ourselves over to friends' houses for Tuna Helper or "real" cheeseburgers and french fries. But at home it did not matter how good for us this or that item was supposed to be, "health food" just wasn't very appealing.

Now I need to say that my mother really did try hard and had good intentions. She had eight hungry mouths to feed on a limited budget and was trying to do the best she could with what was available to her. And it wasn't as though everything she made was not to our liking; we all had our favorites (mine being Kraft macaroni and cheese with hot dogs!). We also watched with amazement as our mother's health problems melted away along with the weight that she was rapidly losing. I am thankful for this very positive lesson in how our eating habits affect our well-being.

But from this example I think we can draw a few conclusions about what not to do. First, don't try engineering a sudden and major overhaul of your family's eating habits; let it be a gradual, progressive change for the better. And don't expect your family to enjoy eating what you put before them just because it is healthy. Children, and spouses as well, don't necessarily appreciate the "good for you" factor when it means they are feeling deprived of their old, less healthy foods. It may also be unwise to withhold all of your family's favorites; perhaps holding onto a few things as occasional treats or rewards is appropriate, or re-create these same foods as healthy but appealing choices. That said, let's consider some things we can do to encourage our families toward healthy eating habits.

INVOLVE THE WHOLE FAMILY

The first thing I would suggest any spouse or parent to do is to involve the whole family in the raising and preparation of your meals. This can be as simple as having the family participate in growing a vegetable garden (even a small child can grow lettuce and tomatoes in his own plot of earth), to teaching your children how to cook. When your family is involved with the food set before them, they may take more pride and interest in what they eat.

From an early age our children have always

shown a keen interest in what Mom is doing in the kitchen, often begging to help. Why squelch that wonderful desire to be of service and the opportunity to learn through imitation? I invite them to join in, assigning age-appropriate tasks to everyone. A child of three can help make a salad. At age three or four, children can begin measuring and mixing. By the time they are six they are able to begin making bread. And by eight they can, with guidance, actually prepare a whole meal.

As you might guess, in our family all of the children from the youngest to the oldest are regularly involved in preparing our family's meals. It just takes a little patience (which is not always easy) and a willingness for things to take longer and be messier. But the long-term rewards are well worth the effort!

We sometimes "explore" a new food before we eat it, just to make it more interesting. That Mediterranean lamb stew, for example, becomes far more palatable once we have discovered how lamb is raised in different parts of the world, as well as why particular spices and vegetables are used in that area. And just where is the Mediterranean Sea, anyway? This approach sometimes works to get a child's mind off the "strangeness" of a new food and focused more on its uniqueness.

Okay, so your child has helped grow the cabbage, aided its transition to sauerkraut, knows a little about the origin of this wonderful food, and now is sitting at the table with a large scowl across his face. "I am not eating that!" So what are you to do? Well, it's time to pull out the big guns.

CHILDREN NEED GUIDANCE

Many believe that a child will instinctively crave the very foods his body needs. I am skeptical about that premise. My kids' insistence that they must have a candy bar does not tell me that their body needs sugar and artificial flavors and colors. Fuel perhaps, but garbage, no! Most children need a little parental guidance, even clever persuasion at times. The desire for good, nutritious foods does not always come naturally. So parents, don't wimp out!

This is not unfamiliar territory to me. We have had guests in our home who actually bring

Don't try engineering a sudden and major overhaul of your family's eating habits; let it be a gradual, progressive change for the better. their children's food along with them, lest they be asked to eat what I might prepare. Poor kids! We do our children a grave disservice when we don't teach them to try new things, but instead indulge their immature and limited tastes.

The strategy we have employed in our home for this problem is simple. We insist that each child have a little bit of everything "good" for him or her before being allowed those foods that the child prefers. For some children this may mean no potatoes or slice of bread (always slathered with mounds of raw butter) until the steamed carrots and sauerkraut have been finished off. For others, they must first eat the salad before they may have their main dish. Sometimes the first foods are put on their plates to disappear before the more welcome foods are even within reach. You come to know each child's likes and dislikes, and must plan your strategy accordingly.

Of course, tantalizing them with a piece of fruit or other dessert will usually help all but the most stubborn of individuals to overcome their aversion to steamed spinach or broccoli. The rest of us will be sure to make plenty of noise over that delicious treat, which further provokes the stubborn one to get through his grumpy resistance. And if he doesn't, well, there's always tomorrow. Eventually hunger wins out and the plateful of food is consumed. Cold, perhaps, but a lesson is learned, which makes it easier for the next mealtime.

More often than not when this tactic is employed the resistant person is surprised to find that she actually enjoys the offending food. This has been the case every time one frequent young guest of our family has sat down to dinner. We only insist that he sample each new thing. He ends up loving it and gives glowing reports to his mother about what a good cook Mrs. Diaz is!

On the rare occasion that a child truly does not like a particular food you may decide to insist, or not, that he have a bite of it before going on to finish the other items on the plate. If it is a food you feel is particularly important for the child's health, by all means make it necessary for the child to eat it! If it's not that important, then allow for the occasional optout.

Of course, all of this is easier when a child is started on these foods early in life. Our most recent baby, Lauren, began solids with steamed spinach enhanced with much raw butter and has enthusiastically devoured it each time we have put it before her. Ditto for steamed carrots, sauerkraut and brown rice. She has never been fed fruit juices, cereal or other common baby foods.

REFURBISH FAVORITE DISHES

A big part of the strategy is recreating old family favorites to make them into healthier meals. This does not mean dull and tasteless, however. It is relatively simple to replace ingredients such as margarine, white flour and sugar, with butter, whole grain fresh-ground flour, and honey or Sucanat. When a recipe calls for Jello, try making your own with plain gelatin and organic fruit juice with a little stevia added. Or when your family wants a casserole, chuck the store-bought cream-based soups and make your own using homemade chicken stock, butter, raw milk and arrowroot powder. And don't even think about using non-dairy whipped topping-make real whipped cream instead! We find that the entirely homemade versions of favorite recipes are far tastier than the processed versions anyway, in addition to being much healthier.

PROUD TO BE DIFFERENT

One last objection to eating well, which one occasionally hears from one's children, is that some kids find it difficult to do anything different from their friends. For instance, it is popular now among some young people to be vegan and eat soy foods. Many of course still want their sodas and doughnuts. An important responsibility of parenting, however, is teaching our kids to stand on their own, often against the crowd and what is "in," and to instead stand up for one's principles and all things good. If they can be shown that junk food and alternative diets really are destructive to human health, then perhaps we can appeal to their intellects to follow a more solid path towards better health while setting a good example for their peers.

With these ideas, perhaps you'll find the transition to far more healthful eating habits relatively pain-free for you and your family. The following are some family-pleasing recipes to get you started. Bon appétit!

MACARONI AND CHEESE

1 pound brown rice elbows, cooked 20 ounces shredded grass-fed cheese 1 quart whole milk from grass-fed cows 1/2 cup arrow root powder 1/2 cup butter from grass-fed cows 2 teaspoons dry mustard

2 teaspoon sea salt

In a large bowl toss rice elbows with melted butter (if the noodles are hot, save yourself a step, the butter will melt on its own). Combine milk with dry ingredients and pour over noodles. Stir in shredded cheese. Put in a large baking dish, brushed with butter, and bake at 350° for 45 minutes. This dish goes well with those nitrate-free hot dogs from pastured hogs or beef!

MEAT LOAF

Here is my family's favorite meat loaf recipe, handed down to me from my Great Aunt Alma. This recipe is very easy to double or triple,

(as I always do), and it freezes well. I think you'll agree that it is the best meatloaf you have ever tasted!

 1 pound ground beef or beef-heart mix
 1/2 cup bread crumbs (I use my sourdough bread crumbs, or gluten-free muffin crumbs, dried out in the oven)
 1/4 cup onion, chopped
 1 teaspoon celtic sea salt
 1 teaspoon ground sage
 1/4 teaspoon black pepper
 2/3 cup milk (rice or almond milk works for casein free)
 1 egg

1/4 cup catsup, preferably homemade, or crushed tomatoes
3 tablespoon Sucanat or honey
1 teaspoon dry mustard
1/4 teaspoon nutmeg
1/2 cup grated cheddar or Monterey jack cheese

Mix beef, bread crumbs, onion, seasonings milk and egg together and pat into a loaf pan. Mix castup or crushed tomatoes, sweetener, mustard and nutmeg and spread over meat loaf. Top with grated cheese. Bake in a pre-heated 350 oven for 45 minutes.

MAUREEN'S BEST PECAN PIE

1/2 cups crispy pecan halves
 3 eggs, slightly beaten
 1/2 cups crispy pecan pieces
 1/2 cup crème fraîche
 1 cup brown rice syrup

1/4 cup melted butter1 cup Sucanat or Rapadura1 teaspoon vanilla

Beat together all but pecans. Add pecans and stir. Pour into soaked pie shell and bake for 55-60 minutes.

PIE SHELL

2 1/2 cups sprouted whole grain flour (see note 2 below)
3/4 cup cold unsalted butter
1/4 cup cold lard, cut into small pieces
2 tablespoons Sucanat or Rapadura
1 teaspoon sea salt
About 1/3 cup ice water with 1 teaspoon cider vinegar

In a bowl combine the dry ingredients. Using a pastry cutter, cut in the butter and lard until the mixture is a coarse meal. Drizzle the ice water over top, a tablespoon at a time, tossing the mixture with a fork until the dough comes together. Do not handle with your hands. Divide in half and chill. Roll out on a pastry board, handling very little with your hands. QQQ

Maureen Diaz is a home schooling mother of nine and chapter leader in the Gettysburg, Pennsylvania. area. She also produced a DVD, Traditional Food Preparations Techniques. The second DVD, a "Beyond the Basics" approach, which includes a large segment on allergy-free cooking and baking as well as many special foods, will be released in November. To order, contact Maureen directly at motherhenof9@comcast.net or see her ad in the back of the journal.

A big part of the strategy is recreating old family favorites to make them into healthier meals.

A FEW SUGGESTIONS TO EASE THE BURDEN OF FOOD PREPARATION

- 1. Involve everyone in the family, assigning particular tasks to individual family members such as tending the kefir, making the sourdough bread or brewing the kombucha.
- 2. Pre-soak or sprout quantities of grains, dehydrate well, and store in the pantry for quick and easy baked goods, pancakes, even yeast bread!
- 3. Dedicate fifteen minutes each evening before bed to handle your cultured foods and to start the next day's bread.
- 4. Make everything in at least double quantities so that you always have another meal in the freezer and enough mayonnaise to last a month.
- 5. Keep a few basic foods on hand for quick and easy meals such as sauerkraut, sourdough bread, raw milk cheese and high-quality salami and bologna.

EATING WELL FOR THE WORKING PERSON How to Get the Maximum Nourishment When Time is at a Premium By William Lamb

My wife and I changed our diets more than two years ago, and we have worked out a system for preparing food which I think other people could benefit from. Eating well when everyone works a full time job and there is no one at home to prepare food is a tricky proposition. This is how we do it:

On Saturday morning we decide what we want to eat for the rest of the week. We generally plan on one or maybe two meat dishes and two or more side dishes. We'll be eating each of the dishes all week, so each recipe needs to make from four to eight servings. Once we have the recipes in hand, we inventory the refrigerator and the pantry and make up a shopping list. The shopping is usually done by noon, and the food gets cooked on Saturday or Sunday evening. If it's done efficiently, cooking usually won't take more than four hours.

The dishes we like to cook include beef in Barolo, clay pot catfish, cherry encrusted roast leg of lamb, chicken pot pie, pork shank with apple glaze and sauerkraut, coq au vin, pork chops with au gratin potatoes and string beans, sauerbraten and prime rib roast. We also make a lot of soups including borscht, minestrone, cioppino, and classic tomato soup. As you can see, we eat well!

The most difficult place to eat well is at work. We all spend a lot of time there, and if your office is like mine, they're not raising grass-fed cattle between the cubicles. My system requires a soft-side insulated lunchbox and several sets of glass containers with resealable plastic lids. Pyrex makes a nice line of these. The largest of the containers fits squarely in the bottom of the lunchbox. I also keep some 8 ounce mason jars with plastic lids for beverages, and a variety of small plastic tupperware and plastic bags for things that don't need to be heated. I don't use microwave ovens, so I donated a small convection oven to my office. An average meal in a glass dish takes 20 minutes to heat up in the convection oven at 250. Conventional and toaster ovens will take a little longer.

On a typical work day I start by packing up a dinner in a large glass container. A serving of the main dish and two heatable sides will usually do it. Next up is breakfast which I make every morning while I'm putting the lunch box together and then reheat at work. This is usually bacon, sausage, steak or liver with a fried egg and half a piece of toast—this I will take to work also, where I will heat it up to eat there. Last to get packed are a piece of fresh fruit, a glass of milk or yogurt, a salad if I'm taking one, and any condiments that I might want with the other food. The whole process, including cooking breakfast, takes about twenty minutes.

Variety is the key to enjoying a good diet, so it is crucial to keep an ample supply of wholesome foods around the house. We always have fresh, raw milk on hand, homemade yogurt or kefir from that milk, a variety of good cheeses, salami, olives, pickles, fresh fruit, homemade mayonnaise, salad dressings and bread.

The most difficult part of making most of your own food is what to do when you've had something four days in a row and you're tired of it. If you don't feel like having the dinner you prepared, leave it for the next day and make a meal out of sausage, cheese, bread and pickles. Hard working farmers in old times took many quick meals from these naturally preserved foods; we can too.

Doing your own cooking does not have to be an exercise in self-denial; treat yourself to delicious food and rich sauces! My homemade meals are the envy of my coworkers. While they are eating Subway, I'm having beef in Barolo with garlicky mashed potatoes and a fresh salad. After a while, food preparation becomes part of the natural rhythm of living. My best wishes to you—enjoy the cooking and enjoy your food!



LEFT: Wilmar Newswanger, president of the Communities Alliance for Responsible Eco-farming, talks with Peg Beals at the Pennsylvania Raw Milk Symposium, hosted by Senator Mike Folmer, held August 2. In the background, Gene' Walls models a raw milk T-shirt. (For details on the symposium, see page 101.)

RIGHT: Maureen Diaz cuddles her ninth raw milk child under a Real Milk Rocks T-shirt.



Wise Traditions

HOW ONE BUSY SCHOOL TEACHER EATS THE WESTON PRICE WAY ALL THE TIME By Alison Tyler

I've been eating the Weston A. Price way for at least seven years, and even before discovering the principles of traditional diets, I took my lunches with me. Here are a few tips I've gleaned on keeping my diet nutrient-dense and fat-filled while working at a full-time, busy job with a thirty to forty minute commute each way.

First there are a few expenses we made to do this well. An extra freezer is critical to store batches of homemade food, lots of two-cup Corning Revere storage bowls and extra lids, high quality thermoses, a place at work to store things and the ability to leave a small crock pot on the counter.

Here are five tips on how I manage:

- 1. Buy lots and lots of the same size freezer food storage containers. I use two-cup Corning Revere containers that have lids you can buy separately. Buy a few extra lids so you never run short. Corning Revere can be ordered but we usually stop on trips at interstate outlets to continue to build our stock. I'm not kidding when I say I have a few hundred dollars invested in these. But I've bought them over a few years and they last a lifetime. A good stock of same-size bowls makes life so much easier. And with Corning Revere they can be. . . micro-waved. . . or if you're like me and rarely microwave, see below.
- 2. Buy at least three thermoses that are the same size. Same for insulated coffee mugs. Once you decide on the one you like, replicate it. The most frustrating thing is the early morning hunt for a missing thermos lid for a ready-to-go cup of steaming herbed broth or hot tea.
- 3. Plan four to six weekends a year to seriously cook huge—I mean huge—pots of soups and stews. Once you test a recipe and fall in love with it, make up batches and batches for freezer storage in the two-cup Corning bowls. My personal constant favorites are turkey soup with wild rice, chicken coconut soup, tomato beef stew and chicken rice noodle or spaghetti squash tetrazzini casserole. I start broth Friday when I get home, purchase ingredients and prep them on Saturday, and on Sunday afternoon turn the broth into stews and soups and package all for the freezer.
- 4. Not interested in ever using a microwave again? Well, this is actually the hardest part for me but I decided to try for one year. At first I put everything in thermoses but even with towels wrapped around hot soup, it wouldn't stay warm enough from the 6:30 am heating to the 1:30 pm eating. So I bought a five-dollar crock pot at the Salvation Army. Now I have wonderfully hot soup at lunch. I put the crock pot in our teacher's area and keep an inch of water in it. Halfway through the morning I run in, turn it on and place my frozen food bowl in. By 1:30 lunch time, it's piping hot and smelling so good in the break room.
- 5. I keep one desk drawer loaded with nutrient-dense snacks to keep me from giving in to our soda or snack machine or for days I've forgotten lunch. I keep:
 - Cans of flip-top tuna and salmon
 - Crispy nuts with dried fruit chunks
 - A few cans of fruit spritzers to quickly nix soda cravings
 - Tea, muscovado sugar and Mt. Capra powdered goat milk
 - Nut butters made with coconut cream plus non-gluten crackers
 - Supplements like B-vitamins and C to replace the pain killers most teachers use when things get hectic
 - Sea salt, pepper and dried herbs to flavor broths I tend to sip during the day
 - A small electric cup warmer to keep tea or broth warm
 - Salmon and beef jerky

I'm in a lucky situation as I have easy access to a refrigerator with freezer at school so I can leave frozen soups and broths at work all week. And I have a small counter and sink area where no one minds if I take up room with my crockpot.

However, my engineering husband works for a large corporation and lives in a cubicle all week long. He eats exactly the way I do but compromises by microwaving his lunch. It simply isn't feasible for him to leave much food at work or a crockpot on a counter. On the scale of nutritional compromises he considers the microwave low even though as an engineer he understands the cost of the convenience versus the damage it does to food.

Farm and Ranch

AFTER THE RECALL: EXPLORING GREATER TRANSPARENCY IN THE MEAT INDUSTRY

By Joel Salatin

Mr. Chairman, and members of the committee, I am honored to be invited to present my message before you today. As a Christian libertarian environmentalist capitalist, my testimony will not fit neatly partisan stereotypes; rather, it will cross broad cultural boundaries. One more caveat: while my comments may appear overbroad, I will not participate in an overnarrow, typical myopic analysis of this topic.

First, a brief context for who I am and a short description of our business. I am a third generation heritage-based farmer, meaning that we do not think life is just inanimate protoplasmic structure to be manipulated however the human mind can conceive to manipulate it. We believe it really does matter if salamanders have four operating legs, that the soil actually lives, and that a successful food system ultimately requires proliferating earthworm populations, respected and honored plants and animals, and an increasing nutritional plane for all of us who eat food.

Our family farm, located a mere three hours from here in Virginia's beautiful Shenandoah Valley, produces salad bar beef, pigaerator pork, pastured poultry, forage-based rabbit and lumber. We fatten pigs on acorns, run eggmobiles behind cows, move cows daily to mimic natural mob stocking herbivorous solar conversion lignified carbon sequestration fertilization, and aerate compost with pigs. Everything is multi-speciated, symbiotic, synergistic, relationship-oriented, and pasture based rather than mono-speciated fecalparticulate confinement factory concentration camp designed.

We market everything either at the farm or within four hours—close enough for patron visits to insure accountability through transparency—to some 2,000 families, 40 restaurants, and 10 retail venues. We employ about a dozen people as fulltime, part-time, and apprentices. Approximately 12,000 people from the around the world will visit our farm this year, taking advantage of our open door policy. Anyone can come anytime to see anything anywhere. We do have a tour protocol for free and paid visits.

We process our own poultry in a customerinspected—far beyond government inspection facility under the PL90-492 producer-grower exemption. Due to inappropriate government regulations, we must take our beef and pork to either a custom or federally inspected nearby processing facility. And although we have not closed on the deal yet, we are far down the path of purchasing the federal inspected facility in Harrisonburg. We've slaughtered animals for nearly half a century.

GUIDING PRINCIPLES

Here are the Polyface transparency guiding principles:

- 1. Encourage a relationship between food, patron, farmer and processor. Knowing something about our dinner dance partner creates accountability. The shorter the length between producer and plate, the easier accountability via transparency can occur.
- 2. Delivery limited to within four hours from the farm. No shipping. This is close enough to allow customers to visit the farm and return home in one day. We call this our foodshed or bioregion. Perhaps you've heard of the 100-mile diet or locavores. These are all descriptions of a local food system that is inherently far more transparent than a food system dependent on the cargo holds of foreign merchant marines.

Joel Salatin, owner of **Polyface Farm** and champion of grass-based farming methods, presented this testimony on April 17, 2008 to the House Committee on Oversight and Government Reform.

- 3. Diversified work stations. We do not believe it is healthy emotionally or culturally for anyone to kill animals every day or use only a narrow spectrum of muscles that encourages carpal tunnel syndrome or repetitive motion illness. Moving workers around within a processing facility and even to outside of it is both emotionally and physically healthy. Diversified processing facilities with rotated workers reduces physical and emotional stress.
- 4. Processing should be done on farm or as close to the farm as possible. Rather than sprinkling feathers up and down the interstate and concentrating guts, hides and blood in one location, healthy and environmentally appropriate volumes reduce toxicity, pathogenicity and trafficking in bio-hazardous wastes.

Before proceeding to the critical issue at hand—transparency in the meat industry—let me address, pre-emptively, the industry's criticism of Polyface because I've heard it hundreds of times: "that sounds cute and

sweet, but it can't really feed the world."

Our tightly integrated system produces far more per acre than single-species industrial systems. And while ours may require more people actually on the land, that simply puts more eyes in prettier offices looking at more natural beauty rather than being cooped up in uninspiring artificial walled-in environments. And we don't pollute anyone's groundwater, create dead zones surrounding estuaries, stink up the neighborhood, provide pathogen-friendly vectors via overcrowded housing, encourage diseases, acidify rumens or a host of other maladies perpetrated on our culture to be cost externalized to society by secretive anti-scientific industrial food systems.

THE CRITICAL ISSUE

Now to the critical issue at hand: transpar-

ency in the meat industry. The very question assumes a degree of opaqueness that has occurred, progressively, over time. We cannot deal with the issue at hand without setting it in context. When Upton Sinclair wrote *The Jungle* in 1906 exposing the atrocities in the meat packing industry, two things happened:

- 1. Sales from the biggest processors dropped nearly 50 percent in six months. Many consumers reverted to local venues.
- 2. Consumer advocates played into the hand of the big abusive processors like Swift and Co. to create the Food Safety and Inspection Service (FSIS).



Had the FSIS never been created, the private market would have solved the problem by creating independent certifying organizations like Underwriters Laboratories or the American Automobile Association. To assume that such a huge fall-off in market share would not have resulted in drastic industry-wide and marketplace measures is extremely unreasonable. But through the FSIS, the industry regained credibility and consumer acceptance. The industry has been hiding under FSIS skirts ever since.

Every major overhaul of the FSIS, including the latest—Haz-

ard Analysis And Critical Control Point (HACCP)—assaults communitybased, small scale abattoirs prejudicially and encourages the proliferation and oligopolization of the centralized, industrial-scaled operations.

This is all symptomatic of a non-heritage view toward food. You can't separate the problem of slaughter opaqueness from the cultural food production paradigm in which "fatter, faster, bigger, cheaper" without regard to ethics, beauty, or order, is the ultimate goal. The U.S., as the ultimate expression of Greco-Roman western linear reductionist disconnected systematized fragmented its-all-about-me thinking, industrialized food systems to the point that food production and processing became abhorrent to humans.

Industrialized food and farming became aromatically and aesthetically repugnant, relegated to the offcasts of society—C and D students along with their foreign workers. When the butcher, baker and candlestick maker stink and look obnoxious and are expelled from the village, no one can see what goes in the front door and comes out the back door any more. And those ostracized economic sectors begin taking social, nutritional and economic short cuts. You cannot have a transparent food system without a production and processing model that re-inserts the butcher, baker and candlestick maker into their village. Today our culture does not ask: "Does it matter if the pig can fully express its pigness, or the chicken its chickenness, or the tomato its tomatoness?"

We view plants and animals as just so many inanimate piles of protoplasmic structure to be manipulated however the human mind can conceive to manipulate them. And a society that views life from that perspective will view its citizens, and other cultures, from the same manipulative perspective. Wow! Suddenly, dear committee members, we can understand that the seamless connection between our ethical, moral foundation surrounding food systems is the one that defines our culture's persona.

Ultimately, you cannot have a transparent food system without a production and processing model that re-inserts the butcher, baker, and candlestick maker into their village. An embedded food system is the only one that offers transparency, and that embeddedness can only occur when aromatic and aesthetic delight romances humans to partake. Our dinner partner has been relegated to prostitution status—shrouded in secrecy and evil intent. The industrial pimps are even trying to patent life so it can sold to the highest bidder.

ABHORRENT ABUSES

The abhorrent abuses that birthed this committee hearing occurred in a federal inspected plant under the eyes of government agents who signed off on the proper hazard analysis paperwork. The fact that this illegality was discovered, exposed, and now the company no longer exists may show well enough that 21st century information democratization is building its own transparency. And that's a good thing. I believe I was invited to testify today because it was assumed I would be in favor of increased and/or mandatory videoing of abattoir activities. Sorry to disappoint, but I am not in favor of any increased governmental presence in abattoirs. You can't regulate integrity. The Hallmark downer cow debacle occurred precisely because of cozy regulator-industry relationships, not in spite of them.

But beyond that, Albert Einstein said, "You can't solve a problem with the same thinking that created it." I would suggest, therefore, that it is not a lack of government oversight that created this opaqueness, but rather the cozy government-industrial fraternity that criminalized neighborhood abattoirs and cottage-based food processing. Were the industry faced with serious entrepreneurial community-based food competition, it would be forced to adopt more transparent policies because consumers would flock to neighborhood integrity.

When clean milk farmers can't put rBGHfree labels on their milk and slaughterhouses voluntarily submitting every steer to a mad cow test get sued by the USDA, it's pretty obvious who the USDA works for. And when our great nation now confines nearly twice as many people in jail as there are farmers, this steady centralization and the opaqueness it engenders can only progress.

The only way to encourage transparency is to strike at the very foundation of a disconnected, disembedded food system by offering freedom of food choice. Let me move, then, quickly to suggested legislative remedies that would truly offer greater transparency in the meat industry.

IF IT'S CLEAN, IT'S CLEAN

First, establish empirical thresholds for contamination, adulteration or pathogenicity without regard to infrastructure requirements. If it's clean, it's clean, and that's all that matters. Random testing, at government expense, would offer regulatory oversight. But if I can gut a steer in the backyard and it's as clean as an Excel animal, why should I have to wrap that steer in a multi-thousand dollar freestanding agriculturalzone prohibited quintuple-permitted facility in order to sell it?

Make no mistake, these regulations are not about food safety. Every state in this great country encourages its citizen-hunters to go out and gut-shoot a deer with potential Creutzfeld-Jacob disease on a 70 degree November day, drag it a mile through sticks, rocks and squirrel dung before strapping it trophy-style on the Blazer hood to be paraded around town in the scorching afternoon sun, then strung up in a backyard tree under roosting birds for a week to be eventually cut up and fed to their children and their children's friends. And the government thinks this is a wonderful thing to do.

In fact, we can give away home-processed

beef, turkey, chicken, pork, home-made salami, sausage, raw milk, vegetable pot pie-you getting hungry yet? We can take the aforementioned deer and give it to the orphans through the Hunters for the Hungry Program-oh, well, I guess orphans are expendable with unsafe food. But if any money changes hands for any of this, suddenly it has moved from neighborhood benevolence to hazardous substance. Folks, most of what we know as food regulations are not about safety, they are about denying market access to the local butcher, baker and candlestick maker by making regulatory overheads burdensome enough to eliminate embryonic competition from ever seeing the light of day. You cannot have a vibrant, community-based food system at the same time you legislate an anti-small, anti-entrepreneurial, overburdensome, capricious food regulatory system.

FREEDOM OF FOOD CHOICE

Second, guarantee every American freedom of food choice to feed their three trillion intestinal micro-flora and fauna community anything they want. Our Bill of Rights guarantees freedom to own guns, assemble and practice religion. But what good are those freedoms if we don't have the freedom to choose healthy foods to feed our bodies so that we may enjoy the freedom to shoot, pray and preach? The only reason we don't have such a fundamental human right is because the great framers of our Constitution could not have envisioned a day when an American was denied the right to buy a glass of raw milk, homemade pot pie or backyard sausage.

In a day when gay rights, unborn rights, handicapped rights, women's rights, equal rights and civil rights occupy center stage, who will stand up for food rights? When the only food available is what some bureaucrat in collusion with industrial food manipulators deems is appropriate, we have truly entered a black hole of food secrecy. Our regulators think it's just fine to feed our culture on Twinkies and Cocoa-Puffs, to hydrate on Coca-Cola and Mountain Dew, but don't you dare drink raw milk or buy your Aunt Matilda's chicken pot pie. This is insane.

Perhaps a good analogy would work here. We're all familiar with the current cultural marketplace icon, eBay. Does anyone think we shouldn't have it? It has become a wonderfully innovative marketplace flattener. Now just imagine that if in order to put an item on eBay, you had to be licensed to operate your computer. And suppose the fire marshal had to inspect your computer-office-mounted fire extinguisher, just in case your hot item generated too much interest. And OSHA had to certify that your office space was safe so that when you jumped up when the first shocking bid came in, you didn't get a splinter in your hind end from a decrepit chair. And you had to have an electrical license to make sure that your plug-in was up to code. And you had to have liability insurance in case the buyer sued you over the product. And ... Okay, enough of this-can you see the point? How successful would eBay have been? It wouldn't exist, of course, and that is precisely the point. The reason the food system has become centralized, amalgamated, and adulterated is precisely because overburdensome regulations have precluded innovative, creative, alternative start-ups from entering the marketplace. Food choice would solve that. Sinclair blew the whistle a century ago, and the marketplace responded. Too bad he was a socialist.

NUMERICAL EXEMPTIONS

Third, establish numerical exemptions from overburdensome regulations patterned after current precedent. Daycare of three children or less is exempted from daycare regulations. Eldercare of three patients or less is exempted from nursing home regulations. Public Law 90-492, the poultry producer-grower exemption allowing 20,000 birds without inspection is a wonderfully proper exemption. Why are 20,000 chickens inherently cleaner than one beef or one hog or one lamb? It's completely nonsensical.

The abuses being suffered today and reported on the news are not in these community-embedded businesses; they are in the large, government-regulated sector. And that is to be expected, because the inherent openness of a cottage-based business creates its own integrity. You have to look hard to ever find abuses at these small outfits. Not that they are perfect or that abuses don't exist. But the propensity is less. Nothing is perfect this side of eternity, so don't even try to make something perfect. All we can

The only reason we don't have such a fundamental human right is because the great framers of our Constitution could not have envisioned a day when an American was denied the right to buy a glass of raw milk, homemade pot pie or backyard sausage.

do is design systems that minimize the propensity toward greed, abuse and secrecy. Empires certainly carry a predisposition to these ills.

LOCAL PROTOTYPES

Fourth, enable local prototypes. Allow any community to opt out of federal food regulations within its jurisdictional boundaries. One of the reasons food freedom is so hard to sell right now is because no prototypes exist to dispel the paranoia among consumer advocates, the industry and the bureaucracy. Remember, some 25 years ago, pioneer homeschooling parents were jailed for truancy violations, and state social workers swooped in to forcibly take these suffering, abused children out of their homes. Educational professionals, quoted on the front pages of newspapers, sounded the alarm that our nation could not afford to build enough jails or hire enough social workers to deal with these educationally neglected, socially deprived children.

Of course, with 20/20 hindsight, we now know that all of this expert paranoia was untrue. We could debate whether it was sincere or not, but certainly time has shown how grossly inappropriate these concerns were. Just because experts said it didn't make it true. Cultures have been home educating much longer than they've been government educating. And people have been eating food from their neighbors and their own kitchens far longer than they've been trucking it an average 1,500 miles or getting it in barcoded USDA-imprinted packages at the supermarket.

Indeed, the assault against communitybased food has gotten so violent in recent years that the international Weston A. Price Foundation has founded the Farm-To-Consumer Legal Defense Fund to provide pro-bono real-time legal counsel for farmers like me who routinely face government violence. The government violence against small producers and processors has created the violence occurring in largely out-of-public-view centralized mega-producers and processors under the complicit eye of government regulators. The National Independent Consumers and Farmers Association, founded a mere 18 months ago, already has nearly a dozen state affiliates with another ten on the way. In the communities of this great country, the systematic annihilation of heritage-based food is proceeding apace and the non-industrial food movement is networking, organizing and surviving.

This committee, if it does anything, should propose legislative relief to these preservers of human food heritage, the wise traditions handed down for millennia before food was assaulted by disrespectful, dishonoring industrial interests. The industry says people like me would give us sickness and disease, epidemics and epizootics. My pasture-based chickens are considered a threat to the scientifically based, environmentally controlled Confinement Animal Feeding Operations (CAFOs). Who wants to live next to a CAFO?

I do not think we need more regulations against CAFOs, even as much as I detest them. The answer is more transparency through expanded market competition by freeing up community-based food systems to exist again. And if that scares you, then allow a community to at least try it. If people get sick, then it won't spread. But if in fact people begin eating better, the distribution carbon footprint is smaller, area hospitals become vacant, then this system can be exonerated, just like home schooling, and a self-directed community can choose, for itself, whether it wants government food or neighborhood food.

The ultimate test of a free or tyrannical society is what it does with its misfit prophets. Gandhi said it this way: "First they ignore you. Then they laugh at you. Then they fight you. Then you win." We are in the fighting stage. The food freedom that my movement represents can be allowed to proliferate, organically, to make its own credentials within the culture. Or it can be snuffed out, annihilated. Which outcome will ultimately create the most transparency in the meat industry? Ask yourself that when you lie down tonight.

I deeply appreciate the opportunity to share with you, and anticipate freedom-friendly, transparent-friendly remedial legislation ideas to come out of this committee. Thank you for taking an interest in these issues. Blessings on you all for the important work you are doing.

communities of this great country, the systematic annihilation of heritagebased food is proceeding apace and the non-industrial food movement is networking, organizing and surviving.

In the

Homeopathy Journal

OWN A HOMEOPATHIC FIRST AID KIT By Joette Calabrese, HMC, CCH, RSHom (NA)

"Sticks and stones may break my bones," is a favorite children's taunt. How often we have heard this yet prayed it would never happen! Nevertheless, should an injury occur, there's nothing more comforting than the homeopathic first aid kit. First aid is the arena in which most people are introduced to homeopathy. Every household, school, ambulance, summer camp and dorm room should be equipped with a homeopathy kit to prevent a simple emergency from becoming a serious casualty.

LAW OF NATURE

What is homeopathy? It is a unique form of medicine that uses minute amounts of pharmaceutically prepared substances from plants, animals and minerals. It is based on strict adherence to the "law of similars" defined by Samuel Hahnemann, MD, in the late 1700s. Dr. Hahnemann noted in his scholarly efforts that when a toxic substance is diluted to an infinitesimal level, its toxic characteristics are antidoted, leaving only the curative qualities in the remedy. For example, most people have heard of ipecac for use in inducing vomiting. This substance, when diluted in the homeopathic method will treat an illness of relentless vomiting.

Twenty-five hundred years before Hahnemann, Hippocrates also noted the parallel action existing between the power of a toxic substance and its therapeutic ability. As a result of the body's ability to adjust to the trigger, this pharmaceutical process allows the pathology to resolve. Dr. Hahnemann's theory was scientifically reproducible and continues to be so today; hence his hypothesis is not theoretical but reflects a biological law of nature. Yet, homeopathy has no side effects, is safe, gentle and, oddly enough, quite inexpensive. The only drawback is that it takes some self education in order to treat emergencies with assuredness. After teaching this method of medicine, I'm confident that anyone can master simple first aid using homeopathic remedies. In general, for first aid, use potencies of 30C.

BASIC REMEDIES

Let's begin with a remedy that is often thought of first, particularly when the pathology has a quick and abrupt start: *Aconitum napellus*. When it comes to the pain, swelling and shock of a sprained ankle and similar sports injuries, this is a rewarding first choice. It should be administered orally as soon as possible and from every few minutes for more severe injuries to once daily for minor ones. This method is the rule of thumb for the administration of homeopathic remedies in general.

The second most frequently used remedy for trauma is Arnica montana, particularly when it comes to injuries to the head such as in concussions. If the injury is serious, it should be administered on the way to the hospital every few minutes. It can be taken until the initial need for Aconitum has passed. Homeopathy is compatible with conventional medicine so one can feel confident using it simultaneously with other treatment methods to bring needed calm, pain relief and healing. In her book More Magic of the Minimum Dose, Dr. Dorothy Shepherd relates that in homeopathic hospitals throughout Europe and India, Arnica montana, when used in high enough potency, has relieved pain from injuries more effectively than morphine! And there are no side effects or addictions associated with homeopathic medicines. Arnica montana can also be used for dental work. It is powerful in its ability to address potential infection and anxiety and soften the shock and discomfort of surgery. Indeed, it can even reduce fear of dental work. Dr. Dorothy Shepherd, British homeopathic doctor and researcher states in her book, A Physician's Posy, "It is advisable to take Arnica before going to the dentist to prevent shock and pain after an

Homeopathy is compatible with conventional medicine so one can feel confident using it simultaneously with other treatment methods to bring needed calm, pain relief and healing.

extraction. Hemorrhage is frequently much lessened by such preventative measures."

Ledum is the remedy of choice for most insect stings. Think of it also for accidents from punctures, stabs, even an injury from an embedded nail, as well as bites from cats, rats, dogs and horses. Meanwhile, be sure to get traditional medical care as well, since *Ledum* is not a substitute for professional care when the injury is serious. Having *Ledum* on hand however, is an opportunity to augment the body's ability to begin healing, reduce swelling, minimize potential infection and bring about calm. *Hypericum* is also used for injuries particularly if the pain involves nerve injury, and when pain is severe. *Hypericum* is a capital choice for tooth pain that originates in an inflamed nerve or after an extraction.

When considering gastric issues there are many remedies of equal value to *Ipecac*, yet *Ipecac* is the remedy you want on hand when vomiting is relentless and affords no relief after the episode. All homeopathic remedies must be chosen specifically for their symptoms and etiology. For example, *Nux vomica* is the premiere remedy for overdoing a good thing: the New Year's Day hangover; the child who stays up late at a friend's house after gorging on pizza and soda; or overindulgence from Halloween candy. Usually the sufferer is cold and has the feeling that if he could only vomit, he'd feel better. There may be irritability and bloating or diarrhea alternating with constipation. Food poisoning, regardless of the pathogen is often aided by *Nux vomica*, but the ultimate remedy for this malady is *Arsenicum album*. This is particularly valuable for diarrhea that is exhausting accompanied by cold and restlessness and burning pains in the stomach or rectum.

What about that wretched poison ivy that causes so much summer distress? Pack *Croton tiglium* in your backpack for when a poison ivy outbreak is blistering a great deal with inflammation and itching. It is particularly useful for when the outbreak is located on the scalp, near the eyes or on the genitals. If the eruption is of a burning nature that causes severe itching and is aggravated by the warmth of a bed, the night, and by scratching, consider *Rhus tox*. This powerful remedy is particularly interesting since it is made from poison ivy. For those with a propensity for these itchy outbreaks yearly, it can be used as a prophylactic before the season begins with a few doses each day for two days.

On planning your homeopathy kit, it is best to buy it already organized in a neat box from a reputable pharmacy. The price is substantially less per bottle and the pharmacy's expertise aids in choosing the most useful remedies. There are several kit sizes available. Purchase the most extensive kit you can afford. Since the remedies, if handled properly, will last indefinitely, the kit becomes an investment of long term benefits. Hylands (www.Hylands.com) carries a kit that is well organized and economical. Consider taking a teleseminar in first aid homeopathy and purchasing a how-to book or CD. The more fleshed out your understanding of this vital discipline, the more able you'll be to depend on its effectiveness. So the next time you hear children chant, smile and think: "I'm ready for an emergency. I have my homeopathy kit."

Joette Calabrese, HMC, CCH, RSHom (NA) is a homeopathic consultant and educator. She is on staff at the British Institute of Homeopathy, Chautauqua Institute, Chautauqua, NY and Daemen College, Amherst, N.Y. Her CD, "Perform in the Storm," is a convenient study of homeopathic first aid and is a natural accompaniment to her teleseminars. Her CD, "Secret Spoonfuls; Confessions of Sneaky Mom" is a Weston A. Price Foundation-styled primer. All are available on her website www.homeopathyworks.net.

AGGRAVATION VERSUS SIDE EFFECTS

A side effect is an unintended or undesirable consequence of a medical treatment, which arises from a substance that is a toxin, for example, aspirin causing ulcers. The substance is still in the material form; hence the poisonous aspect of the substance remains active. The ulcerative response to ingestion of aspirin is not inherent within the person's make up; it is a normal reaction to the presence of a toxin. In a homeopathic remedy, the poisonous aspect is removed by potentization, and only the curative aspect remains. The reaction some people experience, of symptoms worsening, for example, is a reaction to the body finding equilibrium to gain health rather than an effort to throw off a poison. This article addresses *acute* illness, in which low potencies and short term use are employed. In this situation it is extremely rare to see any effect other than a curative one. In fact, in my 21 years of homeopathy experience, I've never seen an aggravation when using a remedy for the situations discussed here, nor for any acute illness for that matter. However, when remedies are employed in constitutional care such as for *chronic* illness, such as allergies, colitis, etc., then we can witness an aggravation. And even then, an aggravation is *not* a side effect.

Feeling tired after a constitutional remedy is the body's way of finding the the best way to heal, and the body does this by aggravating the old symptoms, not by creating new ones. One is an effort to deal with a toxic substance, the other is the body's effort to complete the illness and get back to home. If there is a reaction—and there rarely is one in the hands of an experienced homeopath—it is not a side effect, but an aggravation. Within the scope of this article, I would never encourage someone to treat himself or others constitutionally without proper training.

Know Your Fats

A RESPONSE TO THE NATIONAL ASSOCIATION OF MARGARINE MANUFACTURERS By Mary G. Enig, PhD

In July, the Weston A. Price Foundation received a letter from the National Association of Margarine Manufacturers (NAMM), which takes issue with statements about margarine on our website, www.westonaprice.org. Richard Cristol, president of the organization, specifically singles out a statement in the article "Cholesterol: Friend or Foe?" by Natasha Campbell-McBride, MD: "Skin cancer, blamed on sunshine, is not caused by the sun. It is caused by *trans* fats from vegetable oils and margarine and other toxins stored in the skin. In addition, some of the sunscreens that people use contain chemicals that have been proven to cause skin cancer."

MARGARINE AND CANCER

It was my work for my doctorate that first uncovered the link between *trans* fats and cancer. In studies with rats, I was able to show that *trans* fats interfere with the cytochrome 450 enzyme system.¹ This enzyme system plays many roles, one of which is to help our body detoxify and get rid of carcinogens. I was later able to show, using the same government data available to the Senate Select Committee on Dietary Goals (the McGovern Committee), that consumption of margarine and vegetable oils is associated with more cancer, not less, as the Committee claimed in its final report, and that consumption of traditional fats like butter was associated with less cancer.²

Early studies on fat consumption patterns are useless for shedding light on the butter versus margarine debate because scientists were using databases that did not list *trans* fats; often *trans* fats were labeled as saturated fats in these databases.³ When they found a relationship between saturated fat consumption and cancer, traditional fats like butter, tallow and coconut oil got the blame. In reality these mostly saturated fats were tarred with the black brush of *trans* fats found in margarines and shortenings.

Numerous studies have shown that exposure to sunlight can help protect us against many kinds of cancers,⁴ and that vitamin D deficiency is associated with increased risks of deadly cancers.⁵ There is still much debate over the role of sunlight and melanoma—in fact just such a debate was published in the July 22, 2008 issue of the *British Medical Journal*, with evidence presented supporting both sides of the debate.⁶ Thus Dr. Campbell-McBride is not alone in her opinion that sunlight does not contribute to malignant skin cancer.

As for the generally non-malignant type of skin lesions referred to as basal cell and squamus cell carcinomas, these we know are associated with exposure to sunlight, but there are other factors involved. These lesions occur when "DNA repair of ultraviolet light damage is impaired."⁷ *Trans* fats are a likely dietary factor that would impair DNA repair of ultraviolet light damage. Once *trans* fats are built into the cell membranes of the skin, many reactions cannot take place, including those involved in DNA repair.

The letter from NAMM also states that "Margarine has never been shown to increase the risk of cancer." Until recently, the margarines that people used most certainly did increase the risk of cancer because they contained significant amounts of *trans* fats.

Given the great controversy over *trans* fats, it is a remarkable fact that very few studies have been carried out specifically comparing cancer rates in margarine eaters versus butter eaters. Often all fats are lumped together in epidemiological or case control studies—margarine with butter, lard and other fats.⁸ One study divided participants into four dietary patterns: "healthy" (vegetables, fruit, yogurt, sea products and olive Margarine caused an increase in both the incidence and the number of mammary tumors, and this increase was dose dependent. On the other hand, butter did not show any tumorenhancing effects.

oil); "Western" (potatoes, pizzas and pies, sandwiches, sweets, cakes, cheese, cereal products, processed meat, eggs and butter); "drinker" (sandwiches, snacks, processed meat and alcoholic beverages); and "meat eaters" (meat, poultry and margarine).⁹ Studies so poorly designed tell us absolutely nothing about the relative risks of margarine versus butter. In this study, those on the "Western" diet had a higher risk of colorectal cancer, which allows the researchers to blame butter and exonerate margarine. But the "Western" diet was certainly higher in *trans* fats from pizzas, pies, sandwiches (mayonnaise and bread), sweets and cakes.

An exception to the lack of useful results from research on butter and margarine is a study by Japanese researchers published in *Cancer Detection and Prevention*, 1994.¹⁰ Rats with mammary tumors induced by a carcinogen were alternately fed butter and margarine. Margarine caused an increase in both the incidence and the number of mammary tumors, and this increase was dose dependent. On the other hand, butter did not show any tumorenhancing effects.

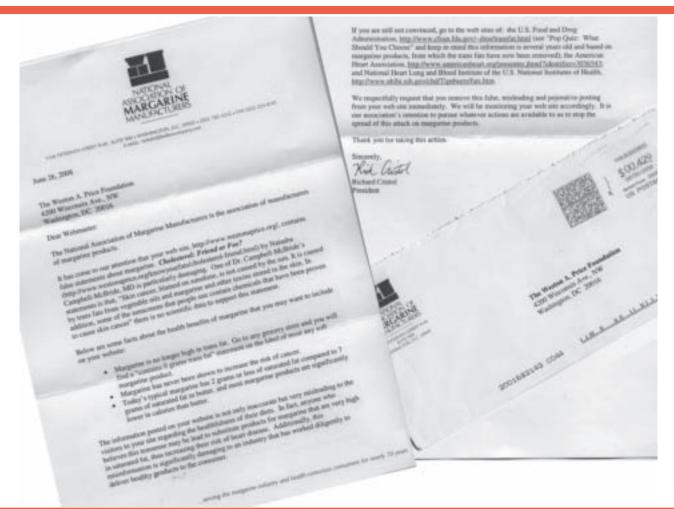
TRANS FATS IN MARGARINE

NAMM argues that "Margarine is no longer high in *trans* fat." A quick perusal at the grocery store reveals that the average margarine—yes, there is still plenty of margarine for sale at grocery stores—contains 2-2.5 grams *trans* fats per 11 grams of fat, so 18-23 percent of the fat in margarine is *trans* fat.

And the new "low-*trans*" spreads are not completely free of *trans* fats. New labeling laws allow "contains 0 grams *trans* fat" on the label when the product contains less than .5 grams *trans* fat per serving containing 11 grams of fat, which means that it can contain up to 5 percent *trans* and still carry this deceptive label. Remember that government scientists have declared *trans* fats to be unsafe at any level.

And there are hidden sources of *trans* fat. Mono- and di-glycerides do not have to be listed as fats. Yet they are fats—just like triglycerides. And they are always partially hydrogenated. Also, many of the liquid oils used in margarines and spreads are deodorized, a brush hydrogenation process that creates small amounts of *trans* fats.

Soft spreads labeled "no *trans*" are based on liquid vegetable oils, which are always full of dangerous free radicals, known to cause cancer.



Other ingredients in soft spreads include the preservative EDTA, citric acid (a source of MSG), artificial flavors and crushed soybeans.

SATURATED FAT

The margarine industry promotes margarine as better than butter because "Today's typical margarine has 2 grams or less of saturated fat compared to 7 grams of saturated fat in butter, and most margarine products are significantly lower in calories than butter." The implication is that saturated fats are bad, a claim that is totally untrue; however, this claim has served to demonize the competition and convince the general population to abandon traditional healthy fats. As shown in the chart below, saturated fats have the opposite effects of *trans* fats, and these effects are beneficial, whereas the effects of *trans* fats are harmful.

As for calories, butter and hard margarines are identical at 108 calories per tablespoon; soft margarines have 100 calories per tablespoon because they contain more water. A savings of eight calories per tablespoon is hardly worth the risk of eating a manufactured soft spread rather than a natural fat like butter!

WEBSITE INFORMATION

The NAMM letter castigates us for "inac-

curate" and "misleading" information on our website. "[A]nyone who believes this nonsense may be lead [sic] to substitute products for margarine that are very high in saturated fat, thus increasing their risk of heart disease." Yes, our information is designed to lead people to use butter instead of margarine; we have provided a wealth of scientific information to show that butter is an especially healthy food and that replacing margarine with butter lowers the risk of heart disease.

Speaking of misleading websites, let's have a look at www.margarine. org, the website of the National Association of Margarine Manufacturers. There we find all the inaccurate, misleading and unscientific misinformation that the vegetable oil industry has promulgated over the last fifty years. The crime of saturated fat, according to the website, is that in certain studies, saturated fat temporarily raises the so-called bad cholesterol. This is a surrogate endpoint, and a totally meaningless one. Margarine eaters have more heart disease than butter eaters¹¹ and epidemiological data show that heart disease is lower in countries where saturated fat consumption is high, as shown in the graphs on page 62.

Mr. Cristol is concerned that the information on our website "is significantly damaging to an industry that has worked diligently to deliver healthy products to the consumer." The truth is, margarines and spreads are not healthy; people need to stop eating them and return to real, whole foods.

PARTNERS IN CRIME

Next Mr. Cristol admonishes us to visit the websites of the FDA, the American Heart Association and the National Heart, Lung and Blood Association. These organizations have been partners in crime with the vegetable oil industry for many years. Promotion of margarine over butter is a national policy, thanks to the backroom manipulations of the industry's

SATURATED FATS VERSUS TRANS FATS

	SATURATED FATS	TRANS FATS
CELL MEMBRANES	Essential for healthy function	Interfere with healthy function
HORMONES	Enhance hormone production	Interfere with hormone production
INFLAMMATION	Suppress	Encourage
HEART DISEASE	Lower Lp(a); raise "good" cholesterol	Raise Lp(a); Lower "good" cholesterol
Omega-3 fatty acids	Put in tissues and conserve	Reduce levels in tissues
DIABETES	Do not inhibit insulin receptors	Inhibit insulin receptors
IMMUNE SYSTEM	Enhance	Depress
PROSTAGLANDINS	Encourage production and balance	Depress production; cause imbalances

Source: M Enig, Trans Fatty Acids in the Food Supply: A Comprehensive Report Covering 60 Years of Research, 2nd Edition, 1995, Enig Associates, Inc., Silver Spring, MD

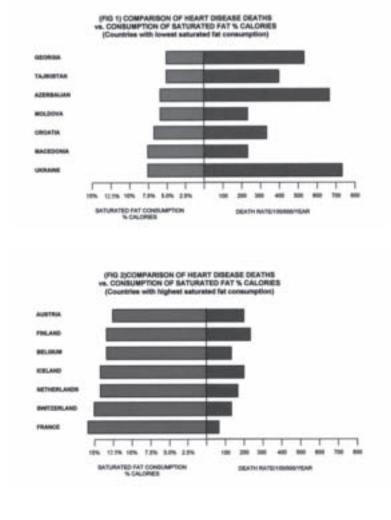
lobbying organization, the Institute for Shortening and Edible Oils. This story is told in detail in my article "The Oiling of America," posted at www.westonaprice.org

Mr. Cristol tells us that he will be monitoring our site to see that we remove any "false, misleading and pejorative" postings. We wonder whether the NAMM has any plans to remove the false, misleading and pejorative postings about butter on its own website.

Fortunately, it is no crime to tell the truth, as we have always done at the Weston A. Price Foundation. We will continue to inform the public about the health benefits of traditional fats and of dangers of highly processed foods like margarine and spreads. They are not fit to be consumed by man or beast.

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Source: *European Cardiovascular Disease Statistics*, 2005 Edition, www.heartstats.org/uploads/documents%5CPDF.pdf.

SUNSCREENS AND SKIN CANCER

The skin cancer epidemic is a worldwide phenomenon. Malignant melanoma is growing at a rate of 7 percent per year in the United States. In 1991, cancer experts estimated that there would be about 32,000 cases during the year of which 6,500 would be fatal. Australia has the highest melanoma rate in the world. For men, the rate doubled between 1980 and 1987 and for women it increased by more than 50 percent. It is now estimated that by age 75 two out of three Australians will have been treated for some form of skin cancer.

Some have cited a change in the ozone layer as a cause of this dramatic increase. However the ozone layer has not changed significantly except at the poles.

Researchers are now beginning to wonder whether use of sunscreens has contributed to the problem. The rise in melanoma has been exceptionally high in Queensland, Australia, where the medical establishment has long and vigorously promoted the use of sunscreens. Queensland now has more incidences of melanoma per capita than any other area in the world. In fact, worldwide, the greatest rise in melanoma has been experienced in countries where chemical sunscreens are heavily promoted.

Most chemical sunscreens contain from 2 to 5 percent of benzophenone or its derivatives (oxybenzone, benzophenone-3) as their active ingredient. Benzophenone is a powerful free radical promoter, used in industrial processes to initiate chemical reactions and promote cross-linking. Benzophenone is activated by ultraviolet light to produce free radicals, known to cause cancer. Source: www.vvv.com/healthnews/dsunscre.html.

The Cholesterol Wars: The Skeptics vs. the Preponderance of Evidence By Daniel Steinberg, MD, PhD. Academic Press, 2007

Daniel Steinberg can be called nothing short of a true expert on cholesterol. He started his medical training in 1941 and spent over forty years researching atherosclerosis and producing hundreds of publications on the topic. He is one of the prime architects of the lipid hypothesis—the idea that elevated levels of cholesterol and especially LDL in the blood cause heart disease.

In his new book, *The Cholesterol Wars: the Skeptics vs. the Preponderance of Evidence*, Dr. Steinberg argues that cholesterol and lipoproteins have been "indicted, tried, and ultimately found guilty" of causing atherosclerosis and cardiovascular disease. He takes us through the entire history of this century-long trial and tells it from the perspective of one who was intimately involved in shaping it.

The majority of the science in the book is solid, and the arguments are generally well reasoned. So how is it that this conclusion can seem so far off?

In part, it is about how we use terms; in part, it is a matter of emphasis; in part, it is because Steinberg is actually right about some things that some cholesterol skeptics refuse to admit.

There is also, however, some bad science in the book. Although he is careful to emphasize the fact that he is supporting the lipid hypothesis rather than the diet-heart hypothesis—that is, the idea that cholesterol in the blood, and not cholesterol and fats in the diet, is what causes heart disease—he does make a limited argument in favor of the diet-heart idea, and it is one of the weaker points of the book. Most important, however, he actually argues that the statin trials are the final clincher showing that lowering cholesterol and lowering cholesterol alone reduces the risk of heart disease—and, of course, statins by no means lower cholesterol alone. In fact, the statins constitute the greatest threat the lipid hypothesis has seen to date.

But first, let's go through the history of the lipid hypothesis as Steinberg conveys it.

RELEVANT RABBITS

In the beginning of the twentieth century, researchers had tried to induce atherosclerosis in lab animals a number of different ways—for example, by injecting adrenalin, bacteria or their byproducts, or by direct traumatization of blood vessels.

The medical field at the time considered atherosclerosis to be an inevitable consequence of aging. To test the hypothesis put forth by Nobel Prize-winning microbiologist Ilya Metchinkov, that dietary protein stimulated aging, the Russian researcher A. Ignatowski induced atherosclerosis in rabbits using diets of meat or milk and eggs. Other researchers showed that eggs alone, with or without the white, and beef brains would also produce the disease. Finally Anitschkow and Chalatow produced the disease with pure cholesterol dissolved in sunflower oil, showing it was the cholesterol and not the protein at work.

Although the rabbits suffered from a variety of serious problems not usually encountered by humans, such as cholesterol deposition in the internal organs, the atherosclerotic lesions were very similar to those seen in human atherosclerosis. They started as fatty streaks and eventually progressed to fibrous plaques with fibrous caps. The lipids accumulated in what appeared to be white blood cells infiltrating the vessel wall, as we now know occurs in humans. The distribution of lesions appeared to be determined by the direction and force of the flow of blood, as it is now believed to be the case in humans.

The lesions became worse the higher the blood cholesterol increased and the longer the rabbit was exposed to this increase, and injection



The majority of the science in the book is solid, and the arguments are generally well reasoned. So how is it that this conclusion can seem so far off?

of LDL and VLDL into the blood of the rabbits produced the same result. Lowering the blood cholesterol using the rabbit's normal herbivorous diet reversed the lipid accumulation but only partially reversed the buildup of connective tissue in the more advanced lesions.

IT'S THE BLOOD LEVEL, NOT THE DIET

Later experiments verified the phenomenon in guinea pigs, but not in rats or dogs. It turned out that rats and dogs convert cholesterol to bile acids very efficiently and their blood cholesterol levels hardly change no matter how much cholesterol they consume in the diet. Blood cholesterol levels of rabbits, by contrast, shoot through the roof to 500-1,000 mg/dL when they consume cholesterol. If researchers inhibit thyroid hormone in dogs, however, dietary cholesterol produces a rise in blood cholesterol levels and subsequent atherosclerosis. In fact, Steinberg tells us, producing a sufficient increase in blood cholesterol levels has produced atherosclerosis in every species tested.

The fact that HDL inhibits the oxidation of LDL may be another reason for some of the observations suggesting that higher HDL levels are protective against heart disease.

CORRELATIONS BUT NOT CAUSATION

Meanwhile, physicians were linking deposits of cholesterol in the skin, called xanthomas, with lesions in blood vessels and familial hypercholesterolemia. Later, Ancel Keys' Seven Countries Study (whose conclusions have been widely criticized in the cholesterol skeptic literature) and the Framingham Study showed correlations between cholesterol levels and heart disease but did not prove causation, and the Japanese Migrants Study showed that "some environmental factor" rather than genetics was the culprit.

Because in the 1950s and 1960s there was no way to lower cholesterol except by replacing saturated fats with polyunsaturated fats, researchers short-circuited the diet-blood and blood-heart connections to a diet-heart connection. Since responses of blood lipids to dietary lipids are so variable, Steinberg writes, this short-circuiting of the hypothesis led to a great deal of confusion.

Dietary trials at the time, often with various flaws, supported the lipid hypothesis but certainly not infallibly. In order to prove the hypothesis, researchers would have to lay down a basic science foundation showing the mechanism by which cholesterol causes heart disease and design powerful drugs to show unequivocally that lowering cholesterol reduces the risk of this disease.

BASIC SCIENCE OF PATHOGENESIS

The basic science would show that HDL can remove cholesterol from the "foam cells" (lipidloaded white blood cells) that enter the blood vessel wall during the formation of atherosclerotic lesions, while the remnants of triglyceride-rich VLDL and chylomicrons (another type of lipoprotein) can be taken up by white blood cells called macrophages in order to produce these same foam cells.

Most of the blame, however, would fall on LDL—but LDL can only be taken up by macrophages once it is damaged by free radicals (oxidized) or free-floating sugars (glycated). LDL that is damaged in such a way—but not *undamaged* LDL—is not only taken up by white blood cells but it attracts them to the blood vessel wall, immobilizes them, and initiates an inflammatory cascade. Because oxidized LDL can stimulate this inflammation, Steinberg argues, the dichotomy between lipids and inflammation is a false one.

Vitamin E and HDL, on the other hand, protect LDL from damage. The fact that HDL inhibits the oxidation of LDL may be another reason for some of the observations suggesting that higher HDL levels are protective against heart disease.

Geneticists showed the cause of familial hypercholesterolemia to be a single mutation in the LDL receptor gene making the receptor non-

functional. Since the cells could not take up LDL by this receptor, LDL would hang around in the blood and the level would rise. Steinberg argues that this finding proved that the elevated level of LDL was the cause of heart disease associated with familiar hypercholesterolemia, although he never entertains the possibility that the inability to bring that LDL into the cells is the cause—for example, by increasing the amount of time an LDL particle spends in circulation, and thereby making it more likely to oxidize.

DRUGS, DRUGS, AND MORE DRUGS

Early trials with cholesterol-lowering drugs in the 1960s were disappointing. Clofibrate reduced the risk of heart attacks but increased the level of liver, gall bladder and intestinal diseases. Altogether, total mortality in those taking the drug increased by twenty percent in one study. Another fibrate called gemfibrozil reduced the risk of heart attacks by 32 percent but had no effect on total mortality.

In the 1965 Coronary Drug Project, D-thyroxine (a synthetic version of thyroid hormone) produced arrhythmia. Both D-thyroxine and estrogen therapy increased the risk of heart disease in men. Nicotinic acid had no effect on total mortality during a five-year trial, although four years after the patients stopped the medication, the treated group had 11 percent fewer deaths. Even this drug, however, led to uncomfortable flushing symptoms and in some cases liver toxicity.

THE CORONARY PRIMARY PREVENTION TRIAL

By the late 1960s, things were not going so well for the lipid hypothesis. The "anti-cholesterol forces" needed a "you can't argue this" type of study—a double-blind, randomized, placebocontrolled trial with a powerful but safe drug. In 1970, the National Institutes of Health (NIH) began laying the groundwork for the Coronary Primary Prevention Trial, a project on which it would spend thirteen years and one hundred fifty million dollars. It established the Lipid Research Branch of the National Heart and Lung Institute and a national network of Lipid Research Clinics. A double-blind diet study would have been impractical and forbiddingly expensive. Not to mention—and Steinberg doesn't—the two-year pilot study found no statistically significant difference in heart disease incidence and didn't bother reporting mortality.

The best drug available was a sandy powder called cholestyramine that would have to be taken in doses of two packets three times a day, mixed with water or juice. It caused bloating, constipation and diarrhea but it was free of systemic toxicity.

In 1973 the researchers at NIH set out to enroll around 3,800 men between the ages of 35 and 59 who were free of heart disease but had cholesterol levels above 265 mg/dL. After ten months, however, they had only recruited 74 patients. A change in strategy was in order. They hired a successful public relations firm that also handled PR for the arms manufacturer McDonnell Douglas. The firm allowed them to screen 10,000 of their employees. The Lipid Research Clinics set up booths to offer free cholesterol screening at football games. By 1976, enrollment was complete.

At the end of the trial in 1984, 3,806 men had been followed for an average of 7.4 years. About 50 percent correctly identified which group they had been placed in, indicating that the doubleblind design worked. The cholestyramine treatment reduced total cholesterol by 13.4 percent and LDL by 20.3 percent. It reduced coronary heart disease and nonfatal heart attacks by 19 percent, which was statistically significant by the p<0.05 level, but not by the more rigorous p<0.01 level they had initially hoped for (a fact that Steinberg doesn't discuss).

Although the result was not as impressive

Early trials with cholesterollowering drugs in the 1960s were disappointing . . . Altogether, total mortality in those taking the drug increased by twenty percent in one study.

as they'd hoped for, the totality of the data was very compelling. The reduction in heart attacks was met with a 20 percent reduction in anginal pain (p<0.01) and a 25 percent reduction in electrocardiogram (ECG) abnormalities (p<0.001).

Moreover, compliance had been measured throughout the study by the nurses who were distributing refills of the cholestyramine packets. Full compliance would have meant six packets per day, but the nurses gave out an average of only 4.2 packets. Among those who fully complied with the regimen, cholesterol levels were reduced 35 percent and heart attacks were reduced 49 percent. Thus, the totality of the data not only corroborated the heart attack figure with related endpoints like angina and ECG readings, but even showed a dose-response between the treatment dose, the cholesterol-lowering effect, and the heart disease outcome.

The seven percent reduction in total mortality, however, was not statistically significant. Although there was no statistically significant increase in any one endpoint, traumatic deaths such as accidents, suicide and homicide nearly tripled from four in the placebo group to eleven in the treatment group. Steinberg is quick to dismiss this finding because earlier clofibrate trials that increased total mortality did not increase traumatic deaths and because one of the deaths in the treatment group occurred because the patient was killed by a surprise burglar. This dismissal is another weak point in the book. Taking out the burglary, the number of traumatic deaths was still more than double. And Steinberg offers no discussion of the evidence connecting cholesterol-lowering and low cholesterol levels to violent suicide, depression and slowed reaction time.

Still, the main point is whether heart disease was reduced, and the evidence Steinberg presents on this point is compelling.

THE 1984 CONSENSUS CONFERENCE

Steinberg describes the 1984 NIH Consensus Conference as though it was very fair to dissenters. Mary Enig recalls it quite differently, noting that dissenters were allowed to speak (they gave three out of twenty presentations) but their views were not included in the pre-packaged consensus report. Steinberg does briefly note, however, that conference director Basil Rifkind sometimes had a "no-discussion-allowed" approach. (He was good at getting things done.)

The Consensus Conference endorsed the view that the lipid hypothesis had been proven. In doing so, it smoothed the way for the FDA to approve the coming statin drugs based on their cholesterol-lowering effect alone before they were tested against a real endpoint such as heart disease. According to Steinberg, however, it was these statins that really proved the lipid hypothesis and put the skeptics to rest.

STATINS PROVE THE LIPID HYPOTHESIS

The statin trials, Steinberg says, reduced cholesterol levels an average of 40 mg/dL and reduced major vascular events by 20 percent. The dose-response between cholesterol-lowering and heart disease reduction is slightly more with statins than with pre-statin drugs, but not much. The bulk of the benefit, Steinberg thus concludes, is due to their cholesterol-lowering effects. Statins are more effective at reducing heart disease simply because they are more effective at reducing cholesterol levels.

He even suggests, albeit with reservation, that if we could lower LDL to 57 mg/dL, we might be able to eliminate heart disease. He cites one finding that people with a genetic defect causing an overactive production of LDL receptors have low LDL from birth and an 88 percent reduced risk of heart disease. If we could start statin treatment even earlier than we currently do, then we might prevent a lot more heart disease. The suggestion that we should put statins in the water supply is thus offered only half in jest-although Steinberg says we should revisit this question only if a zero-side effect statin is invented and should focus on using exercise and diets low in total fat and saturated fat instead of pill-popping as we look toward the future.

DOES THE CONCLUSION FIT THE DATA?

Steinberg is careful to distinguish between the lipid hypothesis and the diet-heart hypothesis. Many writers, he says, lump both ideas under one banner, which leads to confusion. So far, so good—evidence that dietary cholesterol does not cause atherosclerosis in rats or that saturated fat lowers the risk of heart disease in humans does not contradict the hypothesis that an elevated level of cholesterol in the blood causes atherosclerosis and heart disease.

But do the data Steinberg presents really indict *an elevated level of cholesterol in the blood* as the culprit? Chapter five on the basic

mechanism of pathogenesis makes it clear that it is *oxidized* and *glycated* LDL that contribute to atherosclerosis. When LDL gets damaged, it is primarily the polyunsaturated fatty acids in the phospholipid membrane that constitute the first and primary target of oxidative damage—not the cholesterol that mostly lies deep in its core. In fact, the more cholesterol in the core, the larger and more buoyant the particle and the less likely the particle is to oxidize. That's why dietary cholesterol from eggs actually makes LDL safer.

Now, naturally a high level of LDL in the blood—*all things being equal*—will make that LDL more likely to oxidize. If the LDL level is high because more of it is being made, then more LDL particles means fewer antioxidants per particle. If the LDL level is high because of a genetic defect in the LDL receptor or because there is not enough thyroid hormone to make that LDL receptor work, then the LDL will spend more time in circulation and be exposed to sugars and free radicals for a longer period of time.

But all things are never equal. What if the level of LDL is high, but the level of antioxidants is also high? A 2005 study I reported on in my newsletter (see the end of this review for more information) showed that the antioxidant resveratrol protected rabbits against the negative effects of massive cholesterol feeding without having any effect on the total cholesterol level.

So why doesn't Steinberg conclude that it is high blood sugar, free radicals, deficient antioxidants, subclinical hypothyroidism, or excess polyunsaturated fatty acids that have been "indicted, tried, and ultimately found guilty" of causing heart disease?

Certainly it is not cholesterol that is the primary culprit, when cholesterol sits rather innocently or perhaps protectively, mostly at the inner core of the LDL particle, while the sugars and proteins and polyunsaturated fats are causing trouble on the outer surface.

STATINS DISPROVE THE LIPID HYPOTHESIS!

The strangest claim in the book is that statins prove the lipid hypothesis. In fact, it is the statins that have shown us the critical importance of the activation of an enzyme called Rho to heart disease and call into question decades of research associating this disease with cholesterol.

The main enzyme that controls the production of cholesterol is HMG CoA reductase. HMG CoA reductase produces a compound called mevalonate. The cells can use mevalonate to make cholesterol but it can also use it to activate Rho.

Another enzyme called squalene synthase regulates the balance between these two uses of mevalonate: stimulating squalene synthase diverts mevalonate into cholesterol production while inhibiting squalene synthase diverts mevalonate into Rho activation.

Rho induces a stress response in the cell, causing a reorganization of its basic structure and strongly inhibiting nitric oxide synthase, the enzyme that produces nitric oxide.

Nitric oxide is a gas that protects against heart disease at every level—it increases blood flow and vessel dilation, decreases the adhesion of white blood cells to the vessel wall, inhibits the migration of smooth muscle cells to the site of an atherosclerotic lesion, and decreases the formation of blood clots. So when Rho is turned on, nitric oxide is inhibited, and atherosclerosis begins. This process has nothing to do with cholesterol.

Yet it certainly *correlates* with the presence of cholesterol. Inflammation, for example, stimulates HMG CoA reductase but inhibits squalene synthase. This causes a moderate increase in cholesterol levels and a large increase in Rho activation. Thus, you'd expect to find an indirect correlation between cholesterol levels and heart disease in the population because they are both correlated with inflammation.

Statins inhibit HMG CoA reductase. In doing so, they reduce cholesterol levels and Rho activation at the same time—since they reduce both of these by the same exact mechanism, the degree to which they reduce one will correlate with the degree to which they reduce the other.

And what about cholestyramine? Cholestyramine results in a massive increase in squalene synthase activity. It lowers cholesterol by binding up bile acids and causing the body to use up its store of cholesterol to make more of them. But it also causes the body to use up its store of mevalon-ate to make more cholesterol! The result is a lower level of cholesterol *and*—although no one has directly tested it—almost certainly a lower level of Rho activation.

Steinberg argues that because the relationship between cholesterol lowering and heart disease reduction is only slightly higher with statins than it was with the pre-statin drugs, most of the heart disease reduction on statins is due to cholesterol lowering. This assumes that all the previ-

ous drugs only lowered cholesterol. But they too almost certainly lowered Rho activation.

Ironically, what statins have actually taught us is that Rho activation and nitric oxide synthase inhibition have probably been confounding decades of research on cholesterol—from epidemiological studies to pre-statin drug trials to the statin trials themselves, confounding even the analyses attempting to differentiate the cholesterol-lowering effect of statins from their "pleiotropic" (that is, their "other") effects. Rather than proving the lipid hypothesis, statins cast doubt on a great deal of the support it had previously gained.

ARE LIPOPROTEINS INNOCENT?

That said, are lipoproteins vindicated? Not completely. We know from basic molecular biology that oxidized LDL itself inhibits nitric oxide production and activity. We know it initiates inflammation. We know it loads itself into foam cells and we know it doesn't play any "protective" role in arterial plaque—instead, it contributes to the buildup of connective tissue matrix and the weakening of fibrous caps.

But we also know that nitric oxide protects LDL from oxidizing. So do HDL, vitamin E, polyphenols, and, most importantly, coenzyme Q_{10} .

So which makes the greater contribution? Rho activation or oxidized and glycated LDL? That is what we do not know.

DIET: WHERE HE REALLY GOES WRONG

Although Dr. Steinberg emphasizes the fact that he is dealing with the *lipid hypothesis* rather than the *diet-heart hypothesis*, he nevertheless makes a substantial and unfortunate detour in chapter three to defend the American Heart Association for its recommendations to reduce the intake of total and saturated fat. He further concludes his book by looking toward a future where we use exercise and diet instead of pills to keep people healthy. While I would wholeheartedly agree with a reduction in pill taking, he again identifies saturated fat as the dietary villain. Quite the opposite is true.

Steinberg supports his stance against saturated fat with a number of controlled metabolic ward studies showing that substitution of saturated fat for polyunsaturated fat in liquid milk shake formulas increases cholesterol levels, three higher-quality substitution studies that use actual disease endpoints, and four lower-quality studies using actual disease endpoints that he ranks as flawed or even "seriously flawed" but that he believes nevertheless add to the support for the diet-heart hypothesis.

The studies using actual disease endpoints are the ones we care about. The problem is that the evidence is not nearly as good as Steinberg says it is, and he leaves out a number of important trials.

Any reader of *The Cholesterol Wars* should cross-reference chapter three with chapter eight of Anthony Colpo's *The Great Cholesterol Con.* Colpo shows definitively that the totality of controlled experimental studies fails to indict saturated fats and casts serious doubt on the healthfulness of polyunsaturated vegetable oils.

THE THREE STUDIES

The three higher-quality studies that Steinberg presents are the Paul Leren Oslo Diet-Heart Study, the Wadsworth Veterans Administration Hospital Study and the Finnish Mental Hospitals Study.

The Oslo Study replaced saturated fat with polyunsaturated fat, including a pint of soybean oil per week. It lasted five years and produced no difference in all-cause mortality but decreased the incidence of second heart attacks. The control group, however, started out with a higher num-

Ironically, what statins have actually taught us is that Rho activation and nitric oxide synthase inhibition have probably been confounding decades of research on cholesterol.

ber of older and overweight subjects; although it started with the same proportion of heavy smokers as the treatment group, it ended with twice as many heavy smokers. Members of the treatment group were counseled to eliminated their intake of margarine; increase their intake of fruits, vegetables, and fish; and were provided with free sardines canned in cod liver oil. There are far too many confounding variables to suggest this study actually indicts saturated fat.

The Wadsworth Veterans Administration Hospital Study compared meals made with saturated animal fats to meals made with polyunsaturated vegetable oils among institutionalized veterans for eight years. There was a reduction in cardiovascular events, but an increase in cancer of the same magnitude.

Colpo points out that the autopsies showed little difference in atherosclerosis between the two groups except somewhat more aortal plaque in the group that ate the vegetable oil. He suggests that the difference in the rate of cardiovascular events was due to the higher rate of heavy smoking in the control group. (Smoking increases the risk of spasms that can lead to heart attacks, independent of atherosclerosis.) The proper interpretation of this study, then, is that members of the treatment group had a lower rate of cardiovascular events because they smoked less, but had more atherosclerosis and cancer *despite* smoking less—probably because of the vegetable oil they were eating!

The Finnish Mental Hospitals Study used "filled milk"—milk whose fat was replaced with soybean oil—and a polyunsaturated margarine in place of butter. In one hospital, the patients ate their regular diet for six years and then the treatment diet for six years; in the other, they ate the treatment diet first and the regular diet afterwards. In both hospitals total and cardiac mortality was lower on the polyunsaturate-rich diet, but the effect was much more pronounced in the hospital that used this diet first, perhaps because of the confounding effect of age.

This study is certainly more compelling than the other two, but it has one massive flaw: the subjects came and went; if they left for good, they were excluded from the data; if they left and came back, they were included; even if they were newly enrolled just a month before the data were collected, they were still included! A study with this type of irresponsible and possibly even malicious design certainly cannot stand on its own as evidence indicting saturated fat.

YET MORE STUDIES

Steinberg cites four other studies to which he attributes a lower level of quality, each of which are unconvincing at best: the Lester Morrison Study, the Anti-Coronary Club Study, the Bierenbaum St. Vincent Hospital Study, and the British Medical Research Council Study.

The Lester Morrison Study reduced total mortality with a lowfat, low-calorie diet that was high in protein and supplemented with wheat germ and brewer's yeast, supplying plenty of B vitamins, vitamin E and selenium. Low-fat means low in the polyunsaturated fats that the body cannot make and high in the saturated fats the body makes itself—and with plenty of extra vitamins and minerals to protect against mortality.

The Anti-Coronary Club Study replaced animal fat with vegetable oil. It was widely hailed for its reduction in non-fatal heart disease events that included soft endpoints like angina and ECG abnormalities. But the fact that the treatment more than doubled total mortality and increased heart disease mortality from zero to one percent (zero to nine deaths) was widely ignored.

The Bierenbaum St. Vincent Hospital Study found no difference between a diet that was half corn and half safflower oils and a diet that was half peanut and half coconut oils except a 25 Colpo points out that the autopsies showed little difference in atherosclerosis between the two groups except somewhat more aortal plaque in the group that ate the vegetable oil.

percent higher total mortality rate on the first, more unsaturated diet. They pooled the data together and compared it to another group with higher cholesterol levels and, looking backward, determined that the group with higher cholesterol had more heart disease over the previous five years. Steinberg calls this second analysis a "limited study with serious flaws" that nevertheless supports the lipid hypothesis, but it obviously has nothing to do with saturated fat.

The British Medical Research Council Study generated no statistically significant findings. Patients were counseled to reduce saturated fat intake and consume three ounces of soybean oil per day. Cardiac events including angina were slightly lower in the treatment group but total and cardiac mortality were the same. Not terribly impressive.

LEAVING OUT A FEW

Whereas Steinberg cites only seven studies in his treatment of this issue, Colpo cites nineteen. Among the research Steinberg leaves out stand the following two embarrassing studies: 1) a 1965 study by Rose and his team found that replacing animal fat with corn oil for two years lowered serum cholesterol by 23 mg/dL but quadrupled cardiac and total mortality; and 2) the 1978 Sydney Diet-Heart Study found that replacing animal fat with vegetable fat for five years lowered cholesterol by 5 percent but increased total mortality by 50 percent. Granted, Steinberg only means to cover pre-1970s studies—but missing the extremely embarrassing Rose study is hardly an excusable oversight.

In his own analysis, Colpo cites a number of other unsuccessful trials that attempted to reduce heart disease by reducing the intake of total or saturated fat or replacing saturated fat with vegetable oil, sometimes despite a large decrease in serum cholesterol. For example, a 1965 study by Ball and his team was able to reduce serum cholesterol by 25 mg/dL with a diet low in total and saturated fat, but the treatment had no effect on the risk of heart disease. Clearly, these trials fail to indict saturated fat, and, if anything, suggest that polyunsaturated fat contributes to heart disease and cancer.

LOWFAT DIETS ARE HIGH IN SATURATED FATS

Steinberg also suggests that reductions in total fat are similar in effect to reductions in saturated fat. The reasoning seems simple enough—if you reduce your fat intake, some of that fat is saturated, so you will necessarily be eating less saturated fat.

But the exact opposite is true. The body cannot make the polyunsaturated fats we obtain from food but readily makes saturated and monounsaturated fats from carbohydrate. (The body does make a limited amount of polyunsaturated fatty acids but even these are more saturated than the ones found in food.) A lowfat diet is low in polyunsaturated fats and effectively high in the saturated fats that the body will make itself.

Consider the description by George Burr, discoverer of the essential fatty acids, of the first attempt to induce essential fatty acid deficiency in an adult by eating a diet extremely low in fat: "A much more sophisticated experiment was done when biochemist W. R. Brown volunteered to live for six months on a diet extremely low in fat. He was clinically well throughout the entire period, not having even a common cold. There was a marked absence of fatigue. Attacks of migraine subsided completely. The respiratory quotient rose markedly after a meal. *Blood total lipids increased but unsaturation decreased* 25%. Linoleic and arachidonic acids decreased about 50%."

Since saturated fatty acids are not vulnerable to oxidative damage and since it is the unsaturated fatty acids in the LDL membrane that oxidize, we should expect a diet rich in saturated fat and low in polyunsaturated fat to protect LDL from damage. Any benefits from lowfat diets should be seen as benefits of *polyunsaturated fat* restriction, not *saturated fat* restriction.

DRAWING CONCLUSIONS

The conclusions we reach about diet show why it is critically meaningful to distinguish between LDL as the culprit and *oxidized* LDL as *one* of the culprits.

Tightly controlled metabolic ward studies did in fact show that substituting polyunsaturated fats for saturated fats reduces LDL and total cholesterol. If LDL or total cholesterol were the primary villains, it would follow directly that making this substitution would also reduce the risk of heart disease. But if *oxidized* LDL was merely one of several villains, one would have

to ask tougher questions: What effect does this substitution have on oxidation? On inflammation? On glycation?

Steinberg never asks these questions. He recognizes the fact that it is oxidized and glycated LDL we need to worry about, but somehow he considers this a *confirmation* of the hypothesis that total and LDL-cholesterol are the villains, rather than a refutation or at least a modification of this hypothesis. So while he acknowledges this fact in chapter five, he otherwise ignores it.

When we ask those critical questions, however, we come to very different conclusions about diet. We should be minimizing polyunsaturated fats, not saturated fats; we should be maximizing antioxidants and anti-glycating agents from meat that is not overcooked, grass-fed animal fats, CoQ_{10} -rich heart and vitamin-rich liver, vitamin E-rich palm oil, polyphenol-rich virgin coconut oil, fresh fruits, vegetables and nuts, and freshly ground grains; and we should eat plenty of eggs, which increase the size and safety of LDL particles and load them up with protective carotenoids.

And yes, Steinberg is certainly right on one thing—we should get plenty of exercise.

WHO SHOULD READ THIS BOOK

All criticism aside for a moment, this book is an important addition to the cholesterol debate. Steinberg presents a compelling case for the relevancy of animal studies and the success of the Coronary Primary Prevention Trial. His two chapters on the basic science of cholesterol and lipoproteins add a great deal to the debate, which is too often dominated by epidemiology.

Steinberg presents the history of the controversy as one who was intimately involved with it. It is fascinating to read how intertwined the development of the lipid hypothesis has been with the development of modern biological science itself. For example, the LDL receptor was the first of the cell surface receptors discovered and the meta-analysis of cholesterol-lowering drug trials at the 1984 Consensus Conference was one of the first if not the first use of the meta-analysis as a statistical tool.

It is also interesting to contemplate the sheer movement of cash (representing real economic resources) into these studies and to consider how fruitless the use of these resources has actually been. The technology developed by private industry has saved more lives by making heart disease less fatal. Meanwhile, cattle-herding tribes like the Masai have protected themselves against heart disease far more effectively than we have, having neither hundreds of millions of dollars for even a single placebo-controlled trial nor any of the fancy technology that industrial capitalism produces.

Steinberg aims his book primarily at the medical community, but anyone who is reading books like Ravnskov's *The Cholesterol Myths*, Colpo's *The Great Cholesterol Con*, or Kendrick's book by the same title should read this book to get the other side of the story.

Conversely, no one should read this book without also reading at least one of the above selections from the leading skeptics. Steinberg often includes important details from studies that others leave out, but he also often leaves out important details himself, or even whole studies that disagree with his conclusions.

Ultimately, Steinberg fails to produce a convincing argument that total and LDL-cholesterol are the primary villains in heart disease, but he does make a convincing case that they are not completely irrelevant. The basic science showing that oxidized and glycated LDL can accumulate into foam cells and also initiate and aggravate the inflammatory cascade shows clearly that there is nothing protective about this lipid accumulation, and that there is no analogy between it and firemen being found at the scene of a fire.

At the same time, one would get the idea from reading *The Cholesterol Wars* that there is actually good science showing that we should reduce our intake of butter and use vegetable oil instead! And nothing could be further from the truth.

As always, it is best to read both sides. Thanks to Dr. Steinberg, we now can. OP Reviewed by Chris Masterjohn

Chris Masterjohn is pursuing his PhD in Biochemical and Molecular Nutrition at the University of Connecticut and is the creator and editor of Cholesterol-And-Health.Com, where this review was originally published. He publishes a free newsletter available at http://www.cholesterol-andhealth.com/Newsletter.html that includes news from the research front as well as updates to the site including new book reviews.



Prevent and Reverse Heart Disease: The Revolutionary, Scientifically Proven, Nutritionally Based Cure By Caldwell B. Esselstyn, Jr., MD Penguin Group, 2008

Caldwell Esselstyn Jr.'s new book, *Prevent* and *Reverse Heart Disease*, promises a "revolutionary, scientifically proven, nutrition-based cure" for heart disease. The "cure," however, is neither revolutionary nor scientifically proven. While it may be based on nutrition, little in the book is based on reality.

THE DIET

Esselstyn's dietary rules are straightforward: no animal products, no fats or oils of any kind, no nuts or avocados and no refined grains. The diet allows unlimited amounts of vegetables, legumes and whole grains, and permits three servings of whole fruit per day. If you do not have heart disease, you can eat walnuts and avocados in moderation.

Esselstyn recommends a number of supplements: a multivitamin, calcium, vitamin B_{12} , vitamin D, flax seed. . . and statins. Yes, he really calls the cholesterol-lowering statin drugs "supplements." Most of these are intended to make up for the nutrients one misses out on by avoiding animal products. The statins, of course, are meant to lower your cholesterol—that is, if you cannot lower your total cholesterol below 150 mg/dl with diet alone.

THE SCIENCE

Esselstyn repeatedly claims that you will never, ever get heart disease so long as you bring your cholesterol level low enough. "We can go directly to the bottom line," he writes. "This is it: if you follow a plant-based nutrition program to reduce your total cholesterol level to below 150 mg/dL and the LDL level to less than 80 mg/dL, you cannot deposit fat and cholesterol into your coronary arteries. Period."

This is a remarkable claim since he begins the book by describing the case of a patient of his named Joe Crowe who had a heart attack with a cholesterol level of only 156 mg/dL. The entire lower third of his left anterior descending coronary artery was diseased. Are we to believe that a measly 6 mg/dL makes the difference between zero atherosclerosis, on the one hand, and enough atherosclerosis to cause a heart attack, on the other?

It is true that one publication of the famous Framingham Heart Study found a total absence of heart disease among the small handful of people whose cholesterol levels were this low,¹ but plenty of such people died of heart disease in the much larger MR FIT trial.²

Esselstyn claims that a lowfat, plant-based diet will prevent stroke just as effectively as it prevents heart disease, but all he offers for "evidence" is data showing that atherosclerosis is a major cause of stroke. The ugly facts that slay his beautiful hypothesis, however, are that low cholesterol levels make one much more likely to die of stroke and that the risk of stroke gets lower and lower the more fat and animal protein one eats.³

Esselstyn discusses the role of oxidized LDL in heart disease, but twists his information about oxidative stress to suit his dietary recommendations. For example, he writes that fats and oils increase oxidative stress whereas plants and grains contain antioxidants. Nowhere does he point out, however, that only polyunsaturated fatty acids (PUFAs) contribute to oxidative stress⁴ and that coenzyme Q_{10} , found mostly in animal products, is the master antioxidant of the LDL particle.⁵

In a chapter entitled "Moderation Kills," Esselstyn cites evidence that lowfat diets do nothing to prevent heart disease and that one

Nowhere does he point out that only polyunsaturated fatty acids contribute to oxidative stress and that coenzyme Q_{10'} found mostly in animal products, is the master antioxidant of the LDL particle.

out of four patients who lower their cholesterol to 150 mg/dL with statins sustains a heart attack or dies within 2.5 years of starting treatment. His conclusion? That lowfat diets are not nearly low enough in fat, and that cholesterol-lowering treatment only works if you lower your cholesterol at least in part with a plant-based diet. Of course, an alternative explanation would be that lowfat diets do not work and that cholesterol-lowering cannot guarantee anyone freedom from heart disease.

THE ESSELSTYN DIET ON TRIAL

Esselstyn does, however, offer one study purported to show that his extremely lowfat diet does, in fact, reverse heart disease. In his book's foreword, T. Colin Campbell, author of *The China Study*, claims that this study ranks "among the most carefully conducted and relevant medical investigations undertaken during the past century." In reality, the study is nothing of the sort.

Esselstyn ran a five-year trial in which he put heart disease patients on his diet, treating them with cholesterol-lowering drugs if necessary to bring their cholesterol down to 150 mg/ dL.⁶ There was no control group. Twenty-two percent of those who began the intervention dropped out of the study within the first two years; thirty-five percent of those who completed it did not submit to the follow-up analysis of their cardiovascular health; of the twenty-two patients who began the trial, only eleven remained in the final analysis. Of these eleven, occlusion of the blood vessels became better in five, stayed the same in one, and became worse in four.

Despite the inconsistent results, the average change in the width of the blood vessels was an increase in 0.08 millimeters. This represents an apparent reversal of atherosclerosis—on average. Likewise, on average, the degree to which blood vessels were constricted decreased by seven percentage points. Six of the eleven dropped out of the study after the first five years; in the following five years, there were ten heart attacks among the six that dropped out while there were none among the five who remained on the program.

Since there was no control group and there was such a high drop-out rate, it is difficult to make much sense of the study. Did the people drop out because their health was not important to them? Or did they drop out because the vegetarian diet made them feel fatigued, unsatisfied, and even less healthy than their original diet full of meat and junk food? Were the people who completed the study but did not submit to the final measurements of their blood vessels reluctant for no reason, or were they reluctant because they were afraid of the results they would obtain based on how the diet made them feel?

It is possible that an extremely lowfat diet would provide some benefits simply because it is extremely low in PUFA. Since the plants are so low in fat, the body will produce its own fat from carbohydrates. The primary product of this biochemical pathway is palmitate, which is a saturated fatty acid. Because it is saturated, it is not vulnerable to oxidation. Ironically, one of the benefits of eating a diet so low in fat is that a much greater portion of the total fat obtained is saturated.

The question is whether we can eat a diet that protects our blood vessels from the ravages of oxidized lipoproteins while also eating enough fat and protein to maintain robust physical and mental efficiency and ensuring adequate intake of nutrients like zinc, vitamin B_{12} , vitamin B_6 , vitamin D, DHA, taurine and others that are primarily found in animal products. Evidence indicates that there is indeed a way to accomplish this. Since there was no control group and there was such a high drop-out rate, it is difficult to make much sense of the study.

A BETTER WAY

In 2004, researchers from Tufts University, Harvard School of Public Health and several other institutions published a report in the *American Journal of Clinical Nutrition* that the editors of the journal called "The American Paradox."⁷ The study measured the change in atherosclerosis over the course of three years among postmenopausal women who participated in the Estrogen Replacement and Atherosclerosis trial. Like Esselstyn, the authors measured atherosclerosis directly by coronary angiography.

The results certainly surprised the authors. The progression of atherosclerosis was worse with higher intakes of PUFA, and to a lesser extent, with higher intakes of carbohydrate. The higher the intake of saturated fat, by contrast, the slower the progression of atherosclerosis. In the highest quartile of saturated fat, atherosclerosis was reversed!

In this study, the group with the highest intake of saturated fat only achieved a 0.01-millimeter increase in mean coronary artery diameter, which is much smaller than the average improvement in Esselstyn's patients. The effect changed from a slowing of progression to a reversal at about thirteen percent of calories from saturated fat, however, and if we extrapolate from these figures, a further increase to eighteen percent of calories from saturated fat would have produced a reversal of atherosclerosis twice the magnitude produced in Esselstyn's study. Although extrapolation is by its nature somewhat speculative and inherently inconclusive, the same can be said of intervention trials with no control groups.

TRADITIONAL DIETS

The most flagrantly biased assertion in Esselstyn's book is his claim that traditional diets are all lowfat and plant-based. His list of native populations among whom "heart disease is virtually unknown" includes the Tarahumara Indians of Northern Mexico, the Highlanders of Papua New Guinea, and "many native Africans." He fails to point out that the Highlanders of Papua New Guinea have traditionally been so protein-starved that they have resorted to cannibalism. He makes no mention of other groups in whom rates of heart disease are low or non-existent, such as the Maasai and the Inuit, who eat high-fat animal-based diets, the inhabitants of Crete, who eat highly saturated goat cheese as a daily staple, or the natives of Pukapuka and Tokelau in the Polynesian atolls, who live off fish and highly saturated coconut meat.

A REALITY-BASED CURE

Esselstyn cherry-picks the studies he presents and then stretches his interpretations of them as far as they can be stretched. The result is that the picture he paints of the relationship between diet and heart disease has little connection to reality. It is not revolutionary because advocates of vegetarianism, and opponents of dietary fat have been stretching science for ages. It is not scientifically proven because the "proof" is a single study with no control group and a high drop-out rate. While his plan is nutrition-based, a plan for reversing heart disease should be both nutrition-based and reality-based.

A reality-based plan for reversing heart disease would be low in PUFA, but not necessarily low in fat. It would be rich in fresh, traditionally raised and traditionally prepared foods, including animal products. It would include a component emphasizing exercise and happiness. And, luckily for those following it, it would taste good, too.

Reviewed by Chris Masterjohn

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Put Your Heart in Your Mouth By Dr. Natasha Campbell-McBride Medinform Publishing, 2007

Dr. Campbell-McBride is a physician with post graduate degrees in neurology and human nutrition. She has practiced five years as a neurologist and three years as a neurosurgeon. When her eldest son was diagnosed with autism and doctors offered little hope for improvement, Campbell-McBride began an intense study of the condition. On the basis of her investigations and inspired by the assertion of Hippocrates that "all diseases begin in the gut," Dr. Campbell-Mc-Bride pioneered the basis of an unorthodox cure for her son's illness. She published her findings and dietary protocol in her 2004 book, Gut and Psychology Syndrome, which is also the term she uses to describe the intimate relationship between digestive and mental health.

Put Your Heart in Your Mouth, Campbell-McBride's new book, continues in the direct, straightforward manner readers will recognize from her earlier work. As the medical establishment presents us with new drugs and surgeries to handle heart disease, the western world's number one killer, Campbell-McBride offers an uncomplicated two-pronged solution: stop eating processed foods and stop polluting your body with chemicals.

This solution appears surprisingly simple and may seem unbelievable. Yet, with the authority of a well-trained and experienced physician, but also with the lucidity of a teacher, she explains her solution. When she delineates the three steps of atherosclerosis and its cause, she offers convincing studies and references to support her ideas and uses descriptive analogies that permit the non-medically trained reader to easily grasp her ideas. The book offers a good tool for the medical professional not only because of its alternative perspective, but also because it offers clear explanations that can be useful in explaining atherosclerosis to patients. Those with heart problems would better understand their condition by reading this book—even if they never followed the proposed solution.

Put Your Heart in Your Mouth asks obvious questions: "Autopsy studies have found that, by age 60, 100 percent of people have some signs of atherosclerosis. The older we become the more atherosclerotic features we accumulate. So, the question is whether atherosclerosis is a disease, or simply a normal part of the aging process?" Campbell-McBride believes it is indeed a normal part of aging, but the problem is that it is affecting people at younger and younger ages. She states that conventional medicine offers neither causes nor cures. About 200 risk factors for the condition are known, but risk factors are not causes. Of these factors, we hear most often about two of them: serum cholesterol and dietary fat. Over time, these two risk factors have come to be unfairly redefined as defacto causes.

Campbell-McBride's book represents an effort to find the real cause of heart disease. She includes a chapter on the diet-heart hypothesis and points out the fact that a hypothesis is disproved when even a single observation contradicts it. She then goes on to summarize 32 studies that soundly trounce this hypothesis. One example: "The MRFIT study, the Lipid Research Clinics Programme and many other studies have shown that you cannot reduce blood cholesterol by diet. The only way to reduce blood cholesterol is by using drugs."

The chapter "Cholesterol: Friend or Foe?" begins by explaining clearly that nearly every cell in the body produces cholesterol during our entire lives because it is an essential structural material and healing agent. Campbell-McBride describes its roles in the brain and nervous system, fertility and sex glands, bile production and adrenal health. She states that there are many



Every cell in the body produces cholesterol during our entire lives because it is an essential structural material and healing agent.

herbal preparations available to support adrenal health, but "the most important therapeutic measure is to provide your adrenal glands with plenty of dietary cholesterol." She lists foods high in cholesterol with the surprising fact that many seafoods are richer in cholesterol than meat.

The answer to the obvious question, "So, if it is not fat and cholesterol, what does cause heart disease?" appears in Part Two. Campbell-Mc-Bride explains that atherosclerosis is an inflammatory condition. Therefore the best marker for heart disease, fast becoming accepted as such, is the presence of C-reactive proteins, plasma proteins produced by the liver in response to inflammatory conditions in the body. According to Campbell-McBride, microbes, free radicals, trans fats and other harmful substances damage the endothelium of the arteries. Inflammation is the body's attempt to stop the damage so that the body can then repair it. This healing reaction is a normal body process. However, in atherosclerosis, the inflammation does not get rid of the offending substances, the repair does not occur and the lesions don't heal. The lesions become like open ulcers in the vessels which the body fills with materials collectively called plaque. The plaque deposits can grow and eventually can burst, causing potential disasters such as stroke and 76 percent of all fatal heart attacks. What if we could stop the damage that the trouble-makers are causing?

The blame has been placed on the contents of the plaque: chemically-damaged cholesterol, oxidized lipoproteins and other oxidized lipids. "However recent advances in basic sciences have shown us that this blame is absolutely wrong." The war that has been waged from this perspective for the last 40 to 50 years has failed as rates of heart disease and atherosclerosis steadily grow. Yet there is hope, she claims. "What a lot of people don't understand is that an atherosclerotic plaque is not cast in stone. At any stage in its development the plaque can be reduced in size, even removed altogether, or keep progressing and growing." It depends on what is happening in the body.

Why are the damaged arteries not being repaired? Campbell-McBride's answer is that they don't heal because of the pernicious effects of metabolic syndrome. This is when the blood is chronically high in sugar and insulin as a result of our modern diet. A high carbohydrate diet contributes to high insulin levels in the blood which is a "pro-inflammatory environment in the body." In this situation inflammation is actually encouraged.

With this understanding of the cause of atherosclerosis, we come to the question of what to do about it. Again the answer is straightforward and within our control. We must improve our diet. Campbell-McBride explains what to avoid in the diet and what to include. The book also includes a section on how to stop polluting our body with toxic chemicals. The foods she recommends are traditional foods and the recipes are uncomplicated. Also included is a good summary of the importance of a healthy gut, as explained in greater detail in the *GAPS* book. Campbell-McBride explains the importance of healthy gut flora for the immune system because almost 85 percent of all our immunity is located in the gut wall and the bacteria that live there play a crucial role in the proper functioning of our immune system.

Her final chapter has an amusing title, "There is none so blind as the double blind!" In this chapter she suggests not putting too much credence in clinical studies about nutrition. She lists five points to keep in mind before looking at the scientific evidence. We too often wait for science to tell us what is right and we don't listen to our instincts or experience. She is certainly not opposed to scientific inquiry, but sees it as one of the many tools we have. Millions of patients have given much time, effort and money seeking answers to their health problems and find they are helped when they turn to the traditional wisdom of treating disease naturally, with diet and other benign approaches. Science often has confirmed this wisdom. Campbell-McBride suggests we use science wisely and not allow it to eliminate our trust in the centuries-old ways.

Put Your Heart in Your Mouth is a good example of this philosophy. It reminds us that our health is not a matter of "fate" but that we can take concrete steps to help heal and, in so doing, live more like humans were meant to live: happy, as healthy as possible, and enjoying delicious and satisfying foods.

Kathy Kramer, CN is in private practice as a certified nutritionist and also serves as office manager for the Weston A. Price Foundation.

Politically Incorrect Nutrition: Finding Reality in the Mire of Food Industry Propaganda Vital Health Publishing, 2004 By Michael Barbee, C.D.C.

The truth is not always easy to hear. This is clearly evidenced in Michael Barbee's treatise on how to maneuver through the maze of conflicting information when it comes to selecting what to eat today. While the information in this book is solid and well-researched, it's not a fun book to read. Reading page after page, chapter after chapter about dangerous chemicals and contaminants in our foods is depressing. It seems we take our lives in our hands with each meal.

And yet this is information everyone needs to know. Barbee takes on many of the food issues people find most confusing. For example, most Americans believe that when they switch from coffee to green tea, they are opting for a healthier beverage. Discovering that green tea can be loaded with toxic levels of fluoride is shocking, although organic tea generally does not contain the toxic form. Of particular interest are the studies linking increased absorption of heavy metals like lead and aluminum with the presence of fluoride in municipal water. If this is true, what about mercury, cadmium, and other metals? Clearly more research is needed on the topic. The author also takes on soy, cholesterol, aspartame, bovine growth hormone, vitamin C, vegetarianism and other nutritional controversies.

The chapter on beef and butter focuses on the many health benefits of conjugated linoleic acid (CLA), the nutrient that only appears in these foods when the animals have been pasturing on lush, green grass. Although Barbee mistakenly equates CLA with Dr. Price's X Factor (which is now believed to be vitamin K_2), Barbee does a good job of explaining the benefits of consuming the fats found in grassfed dairy and meat, while exposing the dangers of confinement feeding contaminants such as antibiotics and bovine growth hormone and the drawbacks of homogenization in commercial milk processing. It would have been the perfect moment for Barbee to expound on the degradation done to milk by pasteurization as well. While it is briefly mentioned, more needs to be said about the importance of preserving the enzymes and beneficial bacteria found in fresh, raw milk.

Barbee's explanations on the topic of cholesterol are well-written and comprehensive. An entire chapter is devoted to the importance of consuming adequate fat in the diet, while Barbee effectively explains the value of saturated fats and the dangers of trans fats. In the chapter on eggs, he returns to the topic of cholesterol, and delves into the controversy of cholesterol-lowering drugs, particularly the statins. This, too, is powerful information in light of the exorbitant number of prescriptions written for these medications every day. While Barbee does discuss the fact that statins block absorption of CoQ_{10} and the relatively rare incidence of rhabdomyolysis, or severe muscle damage (eight in 10,000 will develop it while taking a statin drug), he neglects to mention the more common side effects of statins: extreme muscle pain and statin-induced muscle weakness-five out of 100 will experience one of these conditions while on a statin.

When discussing vegetarianism, Barbee rightly differentiates between the proscription of meat-eating based on philosophical tenets versus avoiding animal flesh for health reasons. He does a nice job of laying out the various deficiencies that will arise, sooner or later, if one is a vegetarian and not entirely vigilant about ensuring that nutrient needs are covered. He does allow for the possibility of a healthy vegan, provided one supplements with vitamins A, D, and B_{12} . Continued on page 79



It seems we take our lives in our hands with each meal.

Tim's DVD Reviews

MAKING FOOD STORAGE A LIFESTYLE by Russ Silver

One of our Utah chapter leaders, Russ Silver, suffered a serious health crisis years ago and recovered by applying the dietary principles of Weston A. Price. Now on the high side of age seventy and looking very healthy, he has put together a presentation on storing food consistent with those same principles.

He starts off with a brief summary of Dr. Price's work, then discusses the need for soaking grains. Next, he talks about which are the good fats and explains how to render suet into tallow. At the top of his list of food storage recommendations is cod liver oil (good choice), coconut oil, ghee, and lard (not from the store). Other recommendations include dehydrated fruit and vegetables, canned fish, hard cheese coated with paraffin, jerky, pemmican and seaweed or kelp. He points out that seeds and nuts do not last very long in storage. He also goes into how to make no-knead bread.

There is a brief discussion about the alleged benefits of drinking lots of water per the book *Your Body's Many Cries for Water* by Dr. Batmanghelidj. But WAPF does not recommend drinking eight glasses—that's one-half gallon—of water daily. Overall, however, there is much good information in this video. This is not a Hollywood production but is quite competently done and Mr. Silver presents well. Overall a thumbs up. The DVD is available at www. heritagelectures.com.

Pollan advocates moving toward the solar-based, organic and local food model.

THE RAW MILK CONTROVERSY: FACT & FICTION

by Mark McAfee and Dr. Dale Jacobson, DC

This is a recording of Mark McAfee of Organic Pastures Dairy in California having an informal discussion with Dr. Dale Jacobson about the value of raw milk. The discussion opens with a quick history of milk. Those who have read *The Untold Story of Milk* by Dr. Ron Schmid will be familiar with this fascinating story.

Following this is a discussion on how allergy trends align with antibiotic use and consumption of pasteurized milk. One interesting point concerns the fact the genetically engineered bovine growth hormone rBST is only allowed in the U.S. and condemned elsewhere. In the U.S., demand for rBST is dropping due to falling demand for commercial milk.

Mark McAfee probably has a million fascinating stories and he shares one in this video about a young Masai who came to the United States to attend Stanford University. This intelligent man came here in good health but developed Crohn's disease. He was unable to consume any dairy until he discovered raw milk from Organic Pastures. Today he is on the road to recovery. The health benefits of cultured dairy products like yoghurt and kefir come up in the conversation and there are brief mentions of studies like the Parsifal Study which shows children on raw milk tend to be less susceptible to certain illnesses and allergies. This video rates a thumbs up. Available at organicpastures.org.

MICHAEL POLLAN ON WHAT'S WRONG WITH ENVIRONMENTALISM

This is not really a DVD but an audio along with transcription available on the web at http:// e360.yale.edu/content/feature.msp?id=2031. Michael Pollan makes a number of great points in this interview. He talks about the two food chains in this country—the fuel-based (industrial) food chain and the solar-based food chain. The industrial food chain burns ten calories of fossil energy to produce one calorie of food energy. Cows are fed grain and given growth hormones, so they need antibiotics. Obviously, this is not good for the environment and is not sustainable. Pollan advocates moving toward the solar-based, organic and local food model. He points out that if we properly rotate animals and crops, we can get the food we need and leave the land better than we found it. I'm pretty sure that comment was inspired by his observations at Polyface Farm.

But the interview is marred by sweeping generalizations, such as Pllan's assertion that Americans eat too much meat, an "obscene" amount. This pronouncement paves the way for yet another airing of his aphorism "Eat food. Not too much. Mostly plants." Pollan implies that our diet should in fact be grain-based, and he believes that subsidies for corn ethanol production should be reduced, when I believe they should be eliminated altogether.

The simplistic notion that eating less meat will remedy health and environmental problems has been ably rebutted in these pages on more than one occasion. So despite the several important observations raised in the interview, I must nevertheless give it a thumbs down.

As a side note, a WAPF member recently sent us an interview of Michael Pollan by Charles Stuart Platkin, the "Diet Detective," published in a Florida newspaper August 6, 2008. When asked about his favorite breakfast, Pollan replied, "Fried eggs and bacon. Ideally, from pastured chicken and pigs." So much for "Mostly plants." FOODMATTERS: YOU ARE WHAT YOU EAT by Permacology Productions

This DVD is very professionally and nicely done from a technical production point of view. The editing is smooth, the soundtrack is good, and the speakers are articulate. Many good points are raised about how our medical system isn't working. Flawed medical paradigms and influences of vested interests are brought out clearly.

Unfortunately, the solution to our ills, according to this video, is vegetarianism. A number of the speakers also encourage us to gorge ourselves on water and fiber. The word came out a few years ago that there is no evidence that fiber reduces the risk of colon cancer, but apparently the producers of this DVD haven't heard that yet.

While the gravity of these problems is enough to pull my thumb down for this video, I would not say it is a complete waste of time. There are interesting nuggets of information scattered throughout. For example, Prozac has gone off patent and the manufacturer has submitted a patent for a new version, called Prozac-R. There must be some improvement over the old version in order for the patent to be approved. According to the patent, "adverse effects which are decreased ... [include] anxiety, insomnia, inner restlessness (akathisia), suicidal thoughts and self-mutilation." Funny, I thought they had strenuously denied those side-effects for years. As long as the viewer doesn't uncritically accept everything promoted in the video, it does a very good job at exposing the serious problems with mainstream medicine. It is available at www.foodmatters.tv.

Tim Boyd was born and raised in Ohio, graduated from Case Western Reserve University with a degree in computer engineering and worked in the defense industry in Northern Virginia for over 20 years. During that time, a slight case of arthritis led him to discover that nutrition makes a difference and nutrition became a serious hobby. After a pleasant and satisfying run in the electronics field, he decided he wanted to do something more important. He is now arthritis free and enjoying his dream job working for the Weston A. Price Foundation.

Politically Incorrect, continued from page 77

There is little clinical evidence to support this possibility in the long-term, however.

One of my favorite aspects of this book is found at the beginning of every chapter. Each topic opens with two polarities: the prevailing propaganda, followed by the reality and truth regarding the issue. For example in the chapter on fluoride, the prevailing propaganda is that fluoride prevents tooth decay and is harmless. The reality is that fluoride is a toxic poison that accumulates in the body to cause various deleterious effects.

This is a book I would suggest to someone who is passionate about food. It's perfect for

people who have already made dietary revisions and wants to refine their lifestyle even more. I wouldn't recommend it for a client who is stepping into the arena of nutrient-dense foods for the first time as it might prove too overwhelming. But when you reach that point in your journey and are ready to make a deeper commitment to your health, this book has a lot to offer. OBO Reviewed by Anne Fischer-Silva

Anne Fischer-Silva is a holistic nutritionist and licensed holistic esthetician in private practice in Petaluma and Cloverdale, CA. Anne received her nutrition certification from AIMI in Washington, DC. Over the last ten years she has taught nutrition courses in Washington, Hawaii, and Californina, hosted "Health-Wise" (a weekly radio show), and written articles for several publications. Anne is the WAPF chapter leader in Santa Rosa and is passionate about teaching, fresh food, cooking, and connection around the table. Visit her website: www.anewleafnutrition.net.

Growing Wise Kids

QUESTIONS AND ANSWERS ON KIDS AND TRADITIONAL FOODS By Jen Allbritton, CN

Since the inception of this column I have received numerous questions from parents striving to do the best by their children. Creating a well-designed traditional foods diet for adults is hard enough, but things get a little trickier when dealing with youngsters. The health of these dear ones is in the palm of our hands and we want to do the best we can the first time around! A majority of the questions sent my way seem to be common within the traditional food community, so I hope that you will find the answer to a question you may have been mulling over yourself.

QUESTION: How can I make traditional-food meals quicker for my growing family?

ANSWER: Preparing meals with real foods may not necessarily be "quick," but you can make them quicker! First things first—you must willingly embrace the idea that the time and money you invest in your family's nutrition is priceless. And not only for your immediate family, but for generations to come. So if a lack of time is hindering your food preparation efforts, do everything you can to change your commitments. Put your time and money into the things you treasure most—your family!

You must willingly embrace the idea that the time and money you invest in your family's nutrition is priceless. Second, be prepared and think ahead, which means carefully schedule your week with meal prep, and then cook big. Scan the Spring 2007 article, "Make Your Time in the Kitchen Go the Distance," found at www.westonaprice. org under the Children's Health section, for a collection of ideas that will get you on your way.

Essentially, get the most out of everything you make. When you throw together a yummy nutty snack bar, make a large 9 x 13 panful or even two and freeze one. When you make your kids' favorite pancakes, double or even triple the batch (I like to have two pans going to get them done faster) and freeze the leftovers to pop in the toaster oven for a quick morning breakfast. If there is a veggie dip or dressing your kids enjoy, make sure to mark on your weekly planner to whip up a batch so you won't be left in a lurch.

The third way to help make nutrient-dense eating easier is to think "simple." Let go of any preconceived notions about what constitutes a meal. An appealing assortment of simple whole foods can nourish your family just as well as a four-course meal that took three hours to prepare. Consider the tempting ideas below, all of which can be used for an uncomplicated breakfast, lunch or even dinner:

- Serve a few slices of nitrate-free, pastured pork summer sausage with a hunk of cheese and some cherry tomatoes, with a glass of raw milk on the side.
- Build colorful fruit, vegetable or sandwich kabobs and serve with a hard boiled egg sprinkled with sea salt along with a glass of ginger beer or other fermented brew you have ready in the fridge.
- Blend a kefir smoothie with pineapple chunks, frozen banana, an egg yolk or two and a dash of vanilla (or any other flavors your family enjoys) and serve along with a piece of toasted sourdough bread topped with a thick layer of raw (cultured) butter. (Freeze any leftover smoothie in a popsicle mold.)
- Pull out some pre-cut carrot sticks, red pepper spears and cucumber slices to dip in the Homemade Ranch Dressing (see page 83) along with a handful of crispy nuts and a cup of whole-milk yogurt with fruit preserves swirled in.
- In a tortilla, roll up any type of leftover meat along with some pre-sliced peppers, lettuce,

sprouts, or other compatible vegetables with a goodly amount of a dressing, mayo, tapenade or hummus, and serve with a glass of dairy kefir blended with a dribble of homemade chocolate syrup or grape juice.

- In warmer weather, pull out a frozen fruity popsicle made from a base of kefir (dairy or juice) or yogurt and serve it with some crispy nut trail mix along with a slice of watermelon.
- In cooler weather, warm up a serving of homemade frozen soup and add some whole grain crackers topped with almond butter and homemade fermented apple butter.

These types of meals are easy to slice, pour, roll or blend; the only prerequisite is that you are well-stocked with the supplies. While serving a traditional-foods diet to your family may take more time than stopping off at the drive-thru or microwaving frozen meals, you certainly don't have to make everything from scratch for each meal. Just make the most of when you do!

QUESTION: My child is constipated, what can I do?

ANSWER: For immediate relief, offer the Digestive Tea for Baby found in *Nourishing Traditions*. Abdominal massage in the natural clockwise path of the intestines, with massage oil or warm castor oil with a drop or two of either rosemary or lavender essential oil, is an excellent way to help move things along.

Magnesium is essential for intestinal muscle function and tends to have a laxative effect. Powdered magnesium products can be mixed into beverages or foods. Follow the directions on the label for the appropriate dose. There are also homeopathic combinations on the market made specifically for kids that may be worth a try.

As to the crux of the problem, the healing protocol will depend on your baby's age. Dr. Natasha Campbell-McBride boldly states in her most excellent work, *Gut and Psychology Syndrome*, that "constipation is *always* a sign of deficient gut flora in children and in adults."¹ Include probiotic-rich fermented foods and beverages, such as sauerkraut, 24-hour fermented yogurt (which has little to no lactose and a milder taste than kefir for the little ones), kefir (which is particularly good for bowel health), fermented sweet potatoes and similar fermented foods in your child's diet. If you can't seem to get enough of these foods in, supplemental probiotics may be in order, at least for a time.

Be certain your child is well hydrated.

Consider the possibility of a food sensitivity, especially if she is consuming gluten-containing foods.

It goes without saying, make sure all the processed foods are removed or strictly limited in your child's diet and emphasize traditional, fiber-rich choices. Make sure your child is getting plenty of activity and don't discount the power of stress on the body.

Finally, Dr. Campbell-McBride details the benefits and process of enemas in her book, so refer to this resource for more severe cases that are not improved by the above recommendations.

QUESTION: Are there natural ways to help teething pain?

ANSWER: Royal Lee, a nutrition pioneer in the same league with Weston A. Price, had an interesting take on teething in children. Here is a snippet from an audio clip of Dr. Lee talking about the old-time remedy, barley water.

"Barley water, in the old days, was one of the weapons that were found to take care of most everything that was wrong with a youngster. When a baby's teeth are erupting his body fluids become completely deficient in calcium. Their teeth are picking up the calcium so fast that there's nothing left and he becomes quite distressed. A little calcium lactate and barley water and all the symptoms melt away in a matter of a few hours or almost minutes.

"Barley water: How do you make it? All you do is soak pearled barley, a cup full, in a milk bottle or quart bottle full of water in the icebox. In the old days they used to use boiling water and make a tea but now with iceboxes we don't have to cook it to keep it from spoiling. You can soak it in the icebox for twenty-four hours, drain off the water, throw out your barley, and keep the water for drinking."

Lee believed that no matter what the ill-

While serving a traditional foods diet to your family may take more time than stopping off at the drive-thru or microwaving frozen meals,

you certainly don't have to make everything from scratch for each meal. ness, barley water was an excellent remedy and a child could consume as much as desired.²

Barley water is not only rich in calcium and other minerals, but it is also soothing to the digestive tract. Add some honey to flavor and maybe a squeeze of lemon.

After making barley water, you can add the barley to soup if desired. If you are in a pinch, you can boil one cup barley in two quarts water. Once it boils, turn it down to a simmer for 30 minutes, strain, add a sweetener and chill. Note: although there is some debate, consensus is that children under one year old should not consume honey, so choose another sweetener for this age group.

In addition to barley water, there are also topical and internal homeopathic remedies as well as herbal (typically clove-based) topical solutions that may also help reduce pain. Gumming frozen foods can help tune down inflammation—try figs, mango or even washcloths. Mesh bags designed to be stuffed with anything frozen are also available to make cleanup a touch easier.

QUESTION: There are different thoughts on when to start baby on solids, what's the scoop? ANSWER: Many parenting experts hold to the ideal of exclusively breastfeeding a baby for the first six month of life. But after six months, baby should be started on some solid food—no primitive culture practices exclusive breastfeeding after six months. Of course, the breastfeeding should continue, at least to one year.

Many primitive peoples started their babies off with masticated liver as their baby's first solid food.³Another nourishing weaning food is egg yolks. The value of weaning infants on egg yolks was demonstrated in a study published in the *American Journal of Clinical Nutrition*, which found improved iron levels in babies given egg yolks. Further benefit was found in those given egg yolks enriched with essential fatty acids (that is, from foraging chickens eating grass and bugs).⁴ The cholesterol, fats, choline and other valuable nutrients in these foods support superior brain development.

Are there some infants who won't do well with egg yolks or liver or may not do well starting at six months of age? Sure! Here is where you need to figure out your baby's needs. Some babies, even as young as four months, can benefit from adding a soft-cooked egg yolk (preferably from pastured chickens) with grated liver and a dash of salt to their diet. These would be the babies that are physically mature and obviously hungry. You will know if your baby is a fast developer: they tend to sit up, crawl and walk early. Certain babies may want even more than one yolk, which is fine; follow your parental instincts and be guided by your infant.

On the other hand, some babies may not be ready until they are six months or even older to start solids. Again, be observant of your own baby. Has he already shown sensitivities? Does he appear hungry and in need of more calories? And if you decide to try it out and things don't go as smoothly as you had hoped, let it go and try again in another three or four weeks. If it still doesn't feel right, stop and wait another few weeks.

QUESTION: I've heard that offering egg yolks too early to my baby may cause an allergy, is this true?

ANSWER: Egg yolks are mostly fat, which is typically well utilized and unlikely to cause trouble. Egg whites, on the other hand, are mostly protein and more often the culprit in allergic reactions (which is why it is best to wait until at least one year of age before offering this portion of the egg).

Egg yolks do contain a small amount of protein, however, which may still be problematic for some, especially for those highly prone to allergies. How do you know if your child is susceptible to allergic reactions? Allergies tend to run in families, but not necessarily for the reasons one might suspect. While a child may have genetic tendencies, food allergies have more to do with a mother's intestinal microflora passed on to baby. Baby picks up microflora through the birth canal, breast milk and later, feeding habits that are learned through family food choices or other learned behaviors.⁵ So, if mom has an overgrowth of candida, baby will also have an overgrowth of this insidious yeast. Interestingly enough, allergies and symptoms associated with an overgrowth of abnormal gut flora often will not show up until mom has weaned baby because

Some babies, even as young as four months, can benefit from adding a soft-cooked egg yolk (preferably from pastured chickens) with grated liver and a dash of salt to their diet.

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of the antibodies found in breast milk.⁶ Therefore, the health and diet of mom and baby are at the foundation of allergies developing in the first place.

Nonetheless, if immediate family members have allergies or other digestive conditions, such as celiac disease, use caution with offering egg yolks too early to baby. All types of digestive difficulties can compromise digestion and offer a clue to go extra slow when introducing foods.

Every baby will react differently to the introduction of a new food, whether that reaction is digestive, immune or just a taste preference. Take it slow and wait a few days before offering anything else so you can rule out the culprit. Signs of intolerance include redness around the mouth; abdominal bloating, gas and distention; irritability, fussiness, over-activity and awaking throughout the night; constipation and diarrhea; frequent regurgitation of foods; nasal or chest congestion; red, chapped or inflamed eczemalike skin rash.⁷

QUESTION: How many egg yolks can I feed my toddler?

ANSWER: There is no limit for children—and not for adults either! Based on what we know about traditional fats and children through the work of Weston A. Price, we need a good amount of the great brain-building nutrients found in egg yolks. If a child is requesting more egg yolk, don't hold back. Of course, those yolks should be from properly raised, pastured chickens. Think about it this way—we often eat a number of egg yolks quite normally in certain dishes, such as egg yolk custard or an egg frittata. Of course, be sure to offer other nourishing fats (cream, coconut oil, lard, etc.) to widen the variety of nutrients your little one consumes. Chances are your child's requests will change soon enough. Rejoice in the fact that your wee one is asking for more egg yolks instead of more cookies!

QUESTION: My child just doesn't do well with dairy—cow or goat, raw or pasteurized. What alternatives do I have?

ANSWER: Your best alternative for a dairy beverage is the Coconut Milk Tonic found in *Eat Fat Lose Fat* by Sally Fallon and Mary Enig. It has the same amount of calories and calcium as milk. Straight coconut milk often makes a fine substitute for milk or even cream in recipes. Nut milks and grain milk—rice, oat, barley—are other options, but should be homemade—recipes can be found in *Nourishing Traditions*. Store-bought varieties tend to include synthetic nutrients. Of course, you should vehemently avoid soy milk.

If your child doesn't do well on even raw milk, it is even more important to introduce nourishing sacred foods into your child's diet, such as liver from organically-raised chickens, fish roe and bone marrow. If your child is a year or younger, consider making the Meat Based Formula in *Nourishing Traditions*. If he is older,

HOMEMADE RANCH DRESSING

1/2 cup homemade mayo (see Nourishing Traditions or Eat Fat Lose Fat)

1/2 cup crème fraîche, kefir cheese or sour cream (preferably homemade, see Nourishing Traditions)

1-2 tablespoons of spice mix (see below)

ITALIAN SPICE MIX RECIPE

1 tablespoon garlic powder

1 tablespoon onion powder

1 tablespoon evaporated cane juice sugar (Rapadura or Sucanat) or just add a dab of honey to the final recipe

2 tablespoons dried oregano

1 teaspoon ground black pepper

1/4 teaspoon dried thyme

1 teaspoon dried basil

1 tablespoon dried parsley

1/4 teaspoon celery seed powder

1 tablespoon sea salt

Blend all ingredients and enjoy as dressing or dip.

primitive peoples started their babies off with masticated liver as their baby's first solid food.

Many

don't get stuck on the idea that you have to necessarily find a beverage alternative to match dairy. Try introducing other nourishing beverages, such as beet kvas and water kefir, and focus on finding inventive ways to regularly consume nutrient-dense, calcium-rich foods, particularly bone broths.

QUESTION: I make broth in large quantities, but my glass canning jars keep breaking in the freezer. What can I do?

ANSWER: Losing portions of your precious broth to broken glass is so frustrating and something I contended with for years. To remedy the situation, first reduce or concentrate your stock. Gently simmering, not boiling, your finished stock to about half of its original volume saves a tremendous amount of room in the freezer. Make your stock (per directions in Nourishing Tradi*tions*), strain and put into the fridge until the fat hardens at the top. Removing the fat is optional; however, I feel it is best to avoid overheating the fat with the extra heating. It also further reduces rancidity with extended storage in the freezer.⁸ Pour the broth back into a clean pot and bring to a boil, remove the lid and reduce it down again to a simmer until it is reduced to half or more of the volume. You should have an extremely gelatinous consistency once cooled, especially if range-fed meats and bones and chicken feet were used.

Take advantage of the food allergy frenzy. It is not fibbing when you say that your child has sensitivities to sugar and white flour-there are negative biological consequences to consuming such ingredients.

Then, instead of canning jars, try freezing your now condensed broth in Pyrex glass storage containers. These Pyrex containers have plastic lids and thick glass that freezes well and are available at most super-stores (such as Wal-mart or Target). These are much less likely to break than canning jars. Another possibility is to pour the cooked stock into environmentally friendly paper coffee cups. Freeze the broth and then cover the top with plastic wrap or aluminum foil, held in place with a rubber band.

Once thawed, you can use this gelatinous stock as is, or reconstitute it by adding water. It will keep in the freezer for up to six months.⁹

QUESTION: How can I maintain my food ideals out in the world with my kids?

ANSWER: This can be tough, especially if you are involved in a number of social activities.

However, there are some steps you can take to minimize the impact of outside food influences.

For the younger crowd, perhaps the first two years, bringing a snack to the event or childcare situation usually isn't a big deal. Children often don't even know they are eating something different from what the others have. Take advantage of these younger years when you have more control over what goes into their mouths.

It gets a little trickier when the children get a bit older. First, pick and choose your activities carefully. Some social groups may just not be worth your child's involvement due to the struggle that would ensue over the food being served. But for those activities you do choose, at which a snack or meal will be served, here are seven pieces of advice:

- 1. Fill your children's bellies with nourishing foods before leaving the house, no matter where you are going.
- 2. Send your little munchkin off with something yummy. If you need to pack some maple syrup-sweetened treat or some cookie bar with a touch of chocolate mixed in, do it. Your child is bound to favor your homemade treat over the processed non-food that is typically served.
- 3. Have a big sippy or closed container filled to the brim with raw milk. Milk is milk; the childcare workers don't know the difference. And if my child fills himself up on nourishing raw milk, all the better.
- 4. Take advantage of the food-allergy frenzy. It is not fibbing when you say that your child has sensitivities to sugar and white flour—there are negative biological consequences to consuming such ingredients.
- 5. When possible, make change happen. Talk to the coordinators of whatever group you are involved in and see if you can educate them on the dangers of Goldfish and graham crackers and switch them over to serving fresh fruits, chunks of cheese or boxes of raisins. If it comes down to it, offer to purchase the snack for everyone when your child attends—a bunch of bananas can be fairly inexpensive.
- 6. Stay cool. The more fuss you make over your kids' not eating something, the more they will

want to eat it. If your children do get their paws on something you don't approve of, cringe on the inside and keep a smile on the outside.

7. Have a strong courage of conviction. Tell your family, "We don't eat these foods because it weakens our immune system and makes us sick more often," or "it eats away at the calcium in our bones." Explain to your precious children that your family holds to these principles because you love then so much and don't want any harm to come to then. For older children, education is paramount; visit farms, watch documentaries and read books on the value of eating nourishing whole foods as well as on the devastation that afflicts the land and animals subjected to conventional chemicalbased methods. While he may believe you and understand your reasons, some extra motivation may be in order. One idea is to come up with some type of trade. In exchange for the candy handed out in class, make his favorite dessert the coming weekend or add a few stickers to his collection. Let your children go trick-or-treating and then buy back their candy with real money. Use your imagination!

One last thought. We could live in a bubble, but what fun would that be? Life is too thrilling, and having friends is all part of the experience. Not all our friends will live the same lifestyle we do, although seeking some out is a good idea. I have found that friends actually see how we eat, become interested and make many positive changes on their own accord. However, there is a point when it is important to honor the efforts others have put into making a food and just eat it, such as when visiting a friend's home or celebrating a buddy's birthday. Sure you could put up a fuss and make your kid miss out on the cake or even show up late after the cake has been served. But if your child has a few bites of cake with mysterious processed ingredients once every few months, it should be fine, unless there is a particular health condition. Of course, if you can encourage the mom of your child's friend to make a homemade cake instead of buying it pre-made, all those partaking will be better for it!

If you are feeding your family nourishing traditional foods a majority of the time, rare encounters with the processed birthday cake or burger made from commercially-raised hamburger meat will be of little consequence. Moreover, try to get your child more interested in the activities of the gathering than the food. I have noticed my preschooler will eat a bite or two of cake and then he is off and running again to join in the fun.

Live life to its fullest and be aware of the stress you place on yourself and family around your food ideals. Forgoing any flexibility may be counterproductive to your overall health goals!

Jen Allbritton is a Certified Nutritionist and has been researching and writing on all topics of nutrition for over ten years. She lives in Colorado with her husband and two sons, and spends lots of time in the kitchen cooking up WAPF-friendly creations. If you have topic suggestions you would like to learn more about, contact her at jen@nourishingconnections.org.

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FUNDRAISER FOR MARK NOLT AND FAMILY

BELOW: Guests pose at an elegant party hosted by Lyn Rales and the Farm-to-Consumer Legal Defense Fund, to raise funds for raw milk farmer Mark Nolt and family. Over \$13,000 sent to the Nolts helped pay for new cheesemaking equipment, after Pennsylvania Department of Agriculture officials confisgated equipment parts in a raid on the farm.



RIGHT: Hostess Lyn Rales and her son Matt Rales address participants.





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Wise Traditions

^{6.} *Ibid.*, p. 56

Soy Alert! SOY AND CORN BLENDS STOP HUNGER BUT NOT MALNUTRITION By Kaayla T. Daniel, PhD, CCN



The soy industry actively promotes its products as the solution to world hunger. Yet doctors representing *Médecins Sans Frontières* (MSF), the French branch of Doctors without Borders, took a strong stand last year on World Food Day against the soy-corn mixes routinely given to the world's starving children by the United Nations World Food program (WPF) and UNICEF. World Food Day is observed every October 16 to honor the founding of the United Nations Food and Agriculture Organization.

The soy-corn blends stave off hunger but are nutritionally poor, leaving children malnourished and prone to growth stunting, immune disorders, disease and death. At a press conference in Kenya, Dr. Buddhima Lokuge, the U.S. manager of MSF's campaign for Access to Essential Medicines, stated, "The importance of nutrients and the quality of food aid has to be addressed not only by international donors, including the U.S. government, but also by organizations that use pictures of malnourished children to raise funds without a focus on the nutritional quality of food." Dr. Lokuge noted that an extensive report documenting the results of 82 supplementary programs consistently showed the soy-corn products were "failing many children."

Christophe Fournier, President of MSF, added, "We are talking about millions of kids that are at risk of dying It's not enough just to give food. It's what's in the food that counts . . . Without the right amounts of vitamins and essential nutrients in their diet, young kids become vulnerable to disease that they would normally be able to fight off easily."

What are the alternatives? The MSF doctors recommend Plumpy Nut and Plumpy Doz, pastes made from peanuts, peanut oil, powdered milk, powdered sugar and fortified with vitamins and minerals. The products do not require water, do not need to be mixed, require no refrigeration, can be stored in hot climates, have a long shelf life and are easy to transport. In marketing language the products are RUF—Ready to Use Food.

The downside is that the product is considerably more expensive. The cost of enough fortified food to treat a malnourished child for two months is about \$42 compared to about \$11 for the soy/corn blend. But the peanut-milk blend helps children recover more quickly from malnutrition, strengthens their immune systems, protects from disease and prevents stunted growth. Accordingly, it could dramatically cut

PETITION TO RESCIND SOY HEALTH CLAIM

Our petition to the FDA to rescind the soy health claim is now posted on the government regulations website. The FDA soy/heart health claim appears on bottles of soy milk, boxes of tofu and other soy products to create the impression that soy is health; the health claim, approved in 1999, has dramatically boosted soy sales.

We urge our members to submit comments in support of this ably written petition. In 2006, we were able to defeat a proposal to allow a claim that soy prevents cancer; now it is time to get rid of the claim that soy prevents heart disease.

Points to make: soy protein isolate and other highly processed modern soy protein products are not safe and have no long history of use in the food supply; studies published since 1999 undermine the credibility of—and conclusions drawn—from key studies evaluated by the FDA when it approved the health claim in 1999; recent studies show that soy can contribute to or cause heart disease, including endothelial damage (especially in women), heart arrhythmias and cardiomyopathy, an increasingly prevalent condition that affects 1 in 500 Americans.

Finally, if your health has been damaged by consuming soy, please write from your heart and tell your story. To submit your comments, go to http://www.regulations.gov and put in the Docket number FDA-2008-P-0452 . Then click on "Send a comment or submission."

emergency and long-term health care costs and ease the burden on health services that are underfinanced, overburdened and lacking resources.

Currently only about three percent of the 20 million children who receive help worldwide receive these peanut-milk products, and those children are almost always near death. To help children before they become gravely ill, MSF has piloted a program that gives it to all children under three years old in some at-risk communities.

The new products have already proved their mettle. In Niger in 2005, MSF treated 60,000 malnourished children who were near death; they had a 90 percent success rate. "MSF had never treated that many people in a nutritional crisis," said Milton Tectonidis, a nutritionist with MSF. "These products can do it because they can be administered at home. Unbelievably, many of the most severe cases can nevertheless be treated at home. And this is the only way to go where there's so many. There's no way we can hospitalize all of them."

Tectonidis pleaded for more companies to develop RUFs. "Although the United Nations and other agencies now are really stepping up their response and have signed on to these new products, we're very worried that, by themselves, they will not be able to scale up the production and distribution and use of these products quickly enough."

U.S. policies on food donations are partially responsible for encouraging the ongoing use of the cheap soy/corn blend. Washington spends an average of \$2 billion on food aid programs a year and donates surplus soy, corn and wheat. Money is given with the stipulation that it be spent buying U.S. products. A bill to make food aid more flexible is currently being blocked in Congress by politicians set on protecting powerful voting blocs of agribusiness and shipping agents that make millions of dollars from the policy.

MORE BAD NEWS FOR THE SOY INDUSTRY

Last winter the Harvard School of Public Health announced findings that were very surprising, at least to them. Studying infertility among couples who had been trying in vain to conceive, the researchers found that men eating just one half cup of soy food products per day showed 41 million fewer sperm per milliliter

In July, these findings were published in the journal *Human Reproduction*. Lowered sperm quantity was the most serious adverse effect, with the effect slightly more pronounced among overweight and obese men. Sperm motility, morphology and ejaculate volume were not affected at that level of consumption. The industry's response? Repeat the myth that Asians eat massive amounts of soy with no apparent effects on fertility, deflect the blame from soy to excess weight and diminish the problem of 41 million fewer sperm swimmers by reminding folks that only one sperm is needed for conception.

July also saw the publication in *Neurotoxicology* of evidence that soy consumption during pregnancy can damage the female fetal brain, leading to early puberty.

Researchers from North Carolina State University examined the effects of soy genistein (a plant estrogen found in soybeans) and equol (a metabolite of the soy estrogen daidzein), on the reproductive lives of female laboratory rats. According to neurotoxicologist Heather Patisaul, PhD, the study was carried out on rats, but is extremely relevant to humans because both the human and rat hypothalamus are "critically sensitive" to genistein and equol during this crucial stage of development. "That part of the brain is organized by hormones during development—which is the neonatal stage for rats and during gestation for humans," she explained.

This study is significant because it is the first to show how and why this happens. We now know that soy estrogens alter the physical organization of the hypothalamus, a region of the brain essential to the regulation of puberty and ovulation. According to Dr. Patisaul, the findings are extremely worrisome because "the changes in brain structure cannot be reversed."

This latest study spotlights the risk of soy to the female fetus. The dangers of estrogenization to the male fetus have previously been established. Soy during pregnancy can feminize males, and has been linked to the epidemic of hypospadias, a birth defect in which the opening of the penis is not found at the tip but on the underside. A UK study showed this birth defect is five times more likely to occur in boys born to vegetarian women than to women on an omnivorous diet. Although one study isn't proof, it is certainly reason for caution. Currently, a large scale European Commission study is underway to investigate soy's likely role in hypospadias.

Scientists have known for years that estrogenic compounds—including mammalian hormones, environmental estrogens and the phytoestrogens found in soybeans—cross the placental barrier in humans. People today are rightly concerned about the effect of bisphenol A and other environmental estrogens on human health, but need to be aware that naturally occurring plant estrogens such as those found in soy can have similar effects.

NAIS Vpdate

THE FALSE PROMISE OF TRACEABILITY IN OUR FOOD SUPPLY By Judith McGeary

Judith McGeary is an attorney and small farmer in Austin, Texas, the **Executive Director** of the Farm and Ranch Freedom Alliance, and a local chapter leader of WAPF. She has a B.S. in Biology from Stanford University and a J.D. from The University of Texas at Austin. She and her husband run a small grass-based farm with Quarter Horses, cattle, sheep, and heritage breeds of poultry. For more information about NAIS and what you can do to stop it, go to www. farmandranch freedom.org or call 1-866-687-6452

In most years, only a few select committee members in Congress pay much attention to agricultural issues. But food safety has pushed agriculture onto the short list of hot issues in Congress this year. Between the extended hunt for the culprit in the recent salmonella outbreak, the recall of meat from Whole Foods, and the debacle at the California slaughterhouse over downer cows, the American public is getting nervous and demanding that their legislators take action. The flaws in the industrial agriculture system, including its heavy reliance on imported food and centralized distribution, are beginning to become obvious even to mainstream consumers.

Unfortunately, rather than fix the underlying causes, Congress appears to be fixating on band-aid solutions developed by industry. One of the emerging favorites is "traceability." Whether it's the *New York Times* or Congressional staffers, the allure of traceability has taken hold. "Farm to fork" has become the new buzzword, which threatens to ignore all logical and scientific evidence on what is truly needed to fix our food supply problems.

WHAT'S THE PROBLEM?

For those of us who participate in direct farm-to-consumer transactions, traceability is an important theme. The food our farmers sell is 100 percent traceable because the consumer knows the farmer, but the safety of our food does not come from that traceability. The safety comes from the relationship that creates the traceability. As a farmer who sells directly to customers, I do not think in terms of "It costs me X dollars to make this food safe. Is that worth it?" I cannot even imagine having to face one of my customers and explain that we made a decision to protect our profits, which led to their child getting sick from our food! Moreover, sustainable, grassbased farms create conditions for healthier animals, leading to healthier food. Our food safety comes from our entire approach, a combination of farming practices and relationship marketing.

Traceability by itself does not improve food quality or safety. The laws and regulations that govern the mainstream food supply are supposed to create minimum safety standards, but there are many failures in the system as huge corporations seek to maximize their profits while stretching the limits within (and sometimes outside) those laws and regulations. Traceability might create some disincentive for corporations to sell harmful products, but even that level of protection requires the ability to connect the harm done to the source of the harm, in either a court of law or the political arena. As we've seen in the world of pharmaceuticals, corporations can get away with doing a lot of harm even when their products are traceable. The corporations will only change their practices if and when the harms that they are forced to pay for outweigh the profits they can make by taking shortcuts. So, in the big picture, traceability might make consumers feel better but without making their food supply significantly safer. Traceability is about placing blame after the fact, if you can prove it, not taking steps to prevent harm in the first place.

Despite this fundamental flaw, the concept is gaining traction in Congress. The Safe Food Act of 2007, which attracted multiple sponsors in both chambers, would have created a new agency for food safety and required it to establish traceability for all food. The bill provided that the agency, "shall establish requirements for a national system for tracing food and food producing animals from point of origin to retail sale," including "any farm, ranch, orchard, vineyard, aquaculture facility, or confined animal-feeding operation." (HR 1148/ S 654, Sections 3(14) & 210). While the Safe Food Act was not voted on last year, several lawmakers are now discussing including similar provisions in a different food safety bill this year.

The National Animal Identification System (NAIS), which has been discussed in many previous issues of *Wise Traditions*, gave us an early warning about this craze for traceability. The ability to track every single movement of every single livestock animal in the country is a concept that seems to have strong appeal for legislators and bureaucrats. While USDA states that NAIS is not a food safety program, many legislators and the public view it as one. In May, Congresswoman DeLauro (D-CT) inserted a provision into the House Agriculture Appropriations Bill that would require the USDA to buy meats from NAIS-registered farms for the School Lunch Program. While the bill is stalled in Committee for unrelated reasons, the provision gained wide support, particularly among the Democratic leadership.

Not only will traceability not significantly help the mainstream food supply, it will actively harm food safety for those of us following the WAPF traditions. NAIS and the proposals to track produce do not distinguish between the industrial agriculture system and our local, sustainable options, but seek to regulate everyone who grows food under any system. These regulatory programs would create extreme labor and monetary burdens on the small farmers, driving many out of business and reducing consumer choices.

CONCLUSION

If you want to retain the option to buy nutrient-dense foods from your local farmers, then it is vital to become informed and active. We must make Congress understand that simply tracking things-whether it is live animals or vegetables-is not the answer to the problems of the food supply system. Take a few minutes to call your Representative and Senators, and talk with their agricultural staffer about the concept of real food safety from local, sustainable farms. Take a few more minutes, and go to www.FarmAndRanchFreedom.org. You can sign up for free e-mail alerts and download materials to educate people at your local feed store, sales barn, farmers market or co-op. We can also provide informational materials to give to your legislators, and work with them on legislation to stop programs like NAIS.

Contact us at info@farmandranchfreedom. org or call 866-687-6452 for more information to help influence your legislators and protect your food supply.

WHY THE NATIONAL ANIMAL IDENTIFICATION SYSTEM WILL NOT ADDRESS FOOD SAFETY

Livestock producers, who bear the burden under NAIS, are not the source of most food-borne illnesses. These illnesses are from bacteria such as salmonella, *E. coli*, and campylobacter, or the Norwalk viruses, which contaminate food due to poor practices at slaughterhouses or in food handling.¹ The NAIS would do nothing to prevent these problems from occurring. Moreover, because the tracking would end at the time of slaughter, the NAIS would not improve the government's ability to trace contaminated meats once they leave the slaughterhouse and enter the food chain.

NAIS is also not an effective control for BSE, or "Mad Cow Disease," even though it affects live animals. BSE is believed to be caused by feeding infected animal material to cattle. So the key to addressing it is prevention through a strong feed ban. The second key to addressing Mad Cow disease is testing all or a significant percentage of the animals that enter the food supply, as is done in Japan and Europe. The USDA currently tests only about one out of every thousand slaughtered cattle,² and has opposed increased testing, whether government or private.

Although Congress has devoted more than \$100 million in appropriations towards the program since 2004, Congress has never mandated NAIS, nor even mentioned NAIS in authorizing legislation. NAIS would impact millions of animal owners, including people raising food for themselves, hobby farmers, recreational horse owners, and those who own livestock as pets. Congress needs to hold hearings with a full and open debate on the validity of NAIS, not implement it via the back door through appropriations.

The concept of tracking every movement of every livestock animal in massive databases may sound impressive, but it is not founded in sound science, economics, or practicality. USDA has not provided any studies showing why 48-hour traceback is "optimal" nor why 100 percent of animals must be included. The susceptibility of animals to disease and the likelihood of transmission differ greatly depending on the species of animal, the exact disease, and the conditions under which the animals are kept. Therefore, it is obvious that a "one size fits all" solution cannot be based on science. USDA as yet has failed to complete a cost-benefit analysis, despite four years of implementing the program. Moreover, the experience of Australia, the only other country to implement mandatory electronic tracking of cattle so far, indicates that the databases are unwieldy and unworkable. The GAO's 2005 report on agroterrorism and livestock disease made it clear that parts of the U.S. animal health system needed improvement, but did not identify a need for increased tracking of live animals.⁵

NAIS AND THE SCHOOL LUNCH PROGRAM

In July, the Weston A. Price Foundation and the Farm-to-Consumer Legal Defense Fund joined 80 other organizations in sending a letter to the House and Senate Appropriations Committees opposing the linking of NAIS to the School Lunch Program. The text of the letter is reprinted below. Make a copy of the letter to send directly to your Congressman and state legislator, together with your personal letter asking them to oppose the NAIS and support local farmers!

"We, the undersigned organizations, urge you to remove the provision from the House Agriculture Appropriations bill that requires USDA to purchase for the School Lunch Program meat products that are derived from farms (premises) registered with the National Animal Identification System (NAIS). This provision undermines the School Lunch Program and promotes a flawed policy.

"The subcommittee provided two reasons for including this provision. The first reason is to address public health concerns, specifically related to meat recalls. The second reason is to increase participation in the NAIS. Both reasons are fundamentally flawed.

"NAIS is a three-step program that calls for every person who owns even one livestock or poultry animal to register their property, tag each animal when it leaves its birthplace, and report a long list of movements to a database within 24 hours. The listed species include chickens, horses, cows, sheep, goats, pigs, llamas, alpacas, elk, deer, bison, turkeys, and more, whether or not the animal is used for food. Group or lot identification would only be allowed where animals are managed as a group from birth to death and never commingled with animals outside of their production system. In practice, group identification would apply mainly, if not entirely, to confinement operations (CAFOs) and vertically integrated operations. The stated goal of NAIS is to provide 48-hour traceback of all live animal movements.

"NAIS will harm independent farmers and increase the consolidation of our food supply into the hands of a few large corporations. The school lunch provision in particular will favor the most vertically integrated farms that can easily prove that all their meat is from a NAIS-registered farm, as well as confinement operations that will be able to use group identification under NAIS. By creating incentives for CAFOs, the provision will harm both the public health and the environment.⁴ Americans who are increasingly seeking out local and sustainable foods will find their ability to obtain these foods limited.

"Linking NAIS to the School Lunch Program will also harm the growing movement of farm-to-school programs, while benefiting only large-scale, confinement operations where food safety problems are more likely to occur. The farm-toschool programs help improve children's nutrition while providing family farms with a reliable market. They also promote the local economy and environmentally sustainable agriculture, and re-connect children with the source of their food. But many of the small, local farmers who are participating in these programs, or who want to participate, are opposed to NAIS. Whether for philosophical reasons or the costs and burdens imposed by NAIS, these farmers are unlikely to be able to comply with the provision in the appropriations bill.

In the recent Hallmark/Westland beef recall, the fault lies with the packing plant for violating existing regulations and with the USDA for failing to properly inspect the plant. "Downer" cows were slaughtered and the meat then provided to the School Lunch Program. In the video from the Humane Society, every time there was a clear shot of a cow's left ear, one can see a tag.⁵ Changing the type of tag to an NAIS electronic tag would do nothing to address the problem.

For these reasons, we strongly urge you to remove the provision that requires School Lunch Programs to purchase meat products from NAIS-registered premises. Additional background information on why NAIS is a flawed system to address food safety is attached.

We thank you for your consideration.

Signed [82 organizations]

REFERENCES

- See Centers for Disease Control and Prevention, http://www.cdc.gov/ncidod/dbmd/diseaseinfo/ foodborneinfections_g.htm#mostcommon. Campylobacter, salmonella, and *E. coli* are all found in the intestines of animals, so that contamination occurs during the slaughter process. The Norwalk viruses are believed to spread primarily from one infected person to another, through handling of food by infected kitchen workers or fishermen.
- 2. During a period of "heightened" testing in a two year period from 2004 to 2006, the USDA tested fewer than 700,000, or approximately 1% of the cattle slaughtered.

See News Release, Statement by USDA Chief Veterinary Officer John Clifford (DVM) Regarding Positive BSE Test Results (Mar. 13, 2006). In contrast, the European Union countries tested more than 8 ½ million cows just in 2003, and tested over 6 million in just the first 9 months of 2004. See U.K. Food Standards Agency, Results of BSE testing in the EU, http://www.food.gov.uk/bse/facts/cattletest. In 2006, the USDA announced that it was reducing testing by 90%.

- United States Government Accountability Office, GAO-05-214, Homeland Security: Much is being done to protect agriculture from a terrorist attack, but important challenges remain (Mar. 2005) (hereinafter "GAO Report on Agriculture").
- . See Doug Gurian Sherman, CAFOs Uncovered: The Untold Costs of Confined Animal Feeding Operations, Union of Concerned Scientists (April 2008).
- 5. http://www.youtube.com/watch?v=kaM7Hpu47FY

A Campaign for *Real Milk*

RAW MILK: WHAT THE SCIENTIFIC LITERATURE REALLY SAYS A RESPONSE TO WILLIAM MARLER, JD Prepared by the Weston A. Price Foundation

William Marler is a well-known personal injury attorney who specializes in foodborne illness cases. His firm represented one hundred victims of virulent *E. coli* in the 1993 Jack-inthe-Box case and dozens of victims in the 1996 Odwalla juice case. Recently, Marler has turned his attention to raw milk.

Bill Marler's blog post, "Raw Milk Cons: Review of the Peer-Reviewed Literature," cites 102 references from scientific journals purporting to implicate raw milk in disease. Of these, 73 report a total of 70 outbreaks or isolated incidences of foodborne illness, eight report on the presence of pathogens in the milk of bulk holding tanks, and 21 are reviews, editorials, or letters to the editors of scientific journals. Summarized in this article is an analysis of all the studies, prepared by the Weston A. Price Foundation and now posted at www.realmilk.com.

RUSH TO JUDGMENT

Marler provides very little commentary or analysis and thus leads the reader to conclude that this massive list of references must support the few remarks he has made on the supposed dangers of raw milk. In reality, very few of these papers provide convincing evidence that raw milk causes foodborne illness. In fact, a number of these citations are reports of outbreaks traced to pasteurized milk, reviews focusing on the dangers of pasteurized milk, or letters to the editor supporting the right of consumers to purchase raw milk.

Aside from these exceptions, however, most of the cited literature does purport to implicate raw milk. A few of these are convincing. However, most of them represent a rush to judgment in which the investigators blamed raw milk without sufficient evidence or even in the face of contrary evidence. Some of them even provide evidence that certain pathogens such as Campylobacter jejuni can hardly survive in raw milk or that other pathogens, such as Coxiella burnetii, cannot cause disease by ingestion even when raw milk is contaminated with it. The fact that investigators often conclude in the face of this evidence that laws should be enacted to strengthen prohibitions against the consumption of raw milk betrays an unfortunate politicization of the raw milk literature. The occasional use of derogatory phrases, boasts of interference with the commercial success of raw milk farmers, and praise for the centralization and commercial exploits that the pasteurization movement has brought to the dairy industry constitute further evidence that the raw milk literature is often dominated by politics instead of science.

Ultimately, there are two questions that Marler's review fails to adequately address. First, is raw milk uniquely dangerous, such that it should be singled out for prohibition or damaging regulation? Second, is there a reason that producers and consumers should not have the liberty to engage in voluntary exchanges without lawyers and bureaucrats telling them what to eat and drink?

The literature implicating raw milk in foodborne illness exhibits a systematic bias against this food. In many cases, this bias is not intentional, but is a product of sloppy scientific principles. While the bias may not always be present by design, however, it appears that most investigators are thoroughly convinced that raw milk poses a major threat to public health, and thus they often rush to judgment to implicate raw milk even when the science is not fully supportive.

SCIENTIFIC METHOD

Every scientist, even the amateur who



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

merely surveys a given field by taking an introductory undergraduate class, learns the basic principle of epidemiology that correlation does not prove causation. This means that just because two things often appear together, one does not necessarily cause the other. If A is correlated with B, there are, in addition to chance, three possible explanations: A causes B, B causes A, or a third factor C causes both. Scientists usually use statistical associations to generate educated guesses about what might be true, that is, they create hypotheses, and then design experiments to test those hypotheses.

In the case of foodborne illness, a scientist would never perform an experiment to prove a given food could cause human disease because that would involve making other people ill. A scientist can, however, provide convincing evidence that the food was responsible for an outbreak by showing that the pathogen that caused the outbreak was present in the food. By the mid-1980s, scientists had developed very useful techniques for classifying a given pathogen into certain strains, much like scientists might use DNA analysis today to determine who is related to whom by classifying them into different families. Thus, we find the most convincing evidence that a food is responsible for an outbreak when it carries not only the same species of pathogen but also the same strain that caused the outbreak.

Investigators often cite statistical associations to make their case, sometimes without testing raw milk for contamination and other times finding clearly that the milk was not contaminated.

Even with all this fancy technology, sloppy science can easily indict an innocent food. One of the most common ways this happens is for an investigator to sample a food in the possession of the person who became ill. Often, the person has opened this food, handled it, and maybe even eaten or drunk it out of the container. A contaminated jar of milk or block of cheese could cause a person to become ill, but an ill person could also contaminate the milk or cheese. In order to convincingly show causation, then, the investigator has to test an unopened version of the food that was not handled by any of the people who had become ill. Otherwise, the investigation will be biased against whichever food the investigator suspects first and whichever food he or she happens to test-which quite often means the investigation will be biased against raw milk products, if they are present.

provides an excellent demonstration of this phenomenon. A single man became ill with malaise, fever, vomiting, and blood poisoning with Yersinia enterocolitica. When the investigators tested the raw milk he had at home, they found the same strain of the same organism. More careful investigation revealed that his wife drank the milk without becoming ill, that none of the other bottles of milk sold by the supplier were contaminated, and that he had even gotten ill before he purchased the milk! The authors concluded the following: "The milk consumed by the patient was probably contaminated by him so that initial enthusiasm in attributing his infection to the consumption of raw goats' milk is not supported by the facts." This case illustrates some of the pitfalls of trying to determine the vehicle of infection in a single case.

Scientists trying to determine the vehicle of infection in a large outbreak meet the same pitfalls. Investigators often cite statistical associations to make their case, sometimes without testing raw milk for contamination and other times finding clearly that the milk was not contaminated. The problem with this approach may not be obvious on the surface. After all, if 70 percent of the people who drank raw milk became ill and only one percent of the population drinks raw milk, what could possibly account for such a statistical association if not the fact that the raw milk caused the outbreak? Could any rational person suggest that foodborne illness would cause a person to drink raw milk? No-of course not. But there are nevertheless two very compelling alternative explanations for the association: people who have become ill after recently drinking raw milk are probably much more likely to report the illness than other people who become ill, and raw milk may often act as a marker for a third factor that could cause the illusion of an association.

The official position of the Centers for Disease Control (CDC) is that most foodborne illnesses are not reported: "The number of reported cases of diseases under surveillance is a vast underestimate of the true burden, because most episodes of disease never reach the reporting systems. Many ill persons do not seek medical care, medical practitioners may not order the tests to make a specific diagnosis, and laboratories

Marler cites one study (Wale, 1991) that

MARLER'S RAW MILK POSITION PAPER

In addition to compiling a list of raw milk references, Marler has posted a raw milk position paper on his blog (www. marlerblog.com), the purpose of which is to contradict our pro-raw milk arguments. His summary is as follows:

- There is substantial epidemiological evidence from studies in Europe that consumption of raw milk products in childhood has a "protective" effect for some allergic conditions (e.g., asthma, hay fever, eczema); other factors associated with living on a farm such as contact with animals and barns showed a similar effect in these studies. Plausible explanations for these observations exist including the "hygiene hypothesis" and modulation of the immune system early in life. At the same time, no author recommends raw milk as a preventive measure for allergies at this time because of the potential hazards due to foodborne pathogens such as EHEC [the virulent strain of *E. coli*] and Salmonella known to occur in raw milk. The body of literature suggests that further studies are needed to identify the specific factors in raw milk (and other farm exposures) that lead to a protective effect for allergic conditions.
- No articles could be found substantiating an increased risk of autism due to pasteurized milk or a protective effect from raw milk consumption, respectively.
- Probiotics are increasingly recognized in the literature as an effective approach for managing some gastrointestinal and allergic conditions. Specific criteria that define "probiotics" have been published and raw milk does not fit this definition. No articles suggested that raw milk should be used as a probiotic.
- Raw milk and cheeses may contain microflora ("beneficial bacteria") that produce metabolites and other antibacterial compounds that may be toxic to foodborne pathogens. The presence and quantity of these specific compounds, the bacterial species involved, and the log reduction for different foodborne pathogens from these bacteria/compounds has not been defined in raw milk; therefore, these properties cannot be considered a substitution for a "kill step."
- Although studies have shown modest reductions in some vitamins and other nutrients after pasteurization of milk, these changes are insignificant according to a review by Potter et al (1984), human nutrition studies have shown no advantage of raw over pasteurized milk. A review of more recent literature did not reveal any changes in this position.
- No references could be found to support some benefits reported by raw milk advocates such as promotion of tooth development/reduction of dental caries; enhanced fertility; or existence of an undefined substance to protect against arthritis ("anti-stiffness" factor).

The Weston A. Price Foundation's response to each of these points is given below. A detailed response is posted at realmilk.com.

- Marler defines the "hygiene hypothesis" in a way that clearly includes exposure to pathogens but does not clearly include or exclude exposure to nonpathogenic or symbiotic organisms. He dismisses the "probiotic" of raw milk because it does not fit an irrelevant definition of "probiotic" designed for formulated products rather than natural foods, but cites numerous studies in support of the "hygiene hypothesis" that could also be interpreted to support a probiotic effect of raw milk. In most cases, the authors of these studies themselves suggest such an effect, but Marler fails to disclose this in all but one case.
- Authors of studies cited by Marler suggest several other potential mechanisms for a protective effect of raw milk against allergic disorders such as the reduction in micronutrients, destruction of antimicrobial peptides, denaturation of whey protein induced by pasteurization and the fortification of pasteurized milk with vitamin D.
- Marler frequently cites the opinions or conclusions of researchers that raw milk is hazardous rather than citing specific hazards and discussing primary evidence of these putative hazards. In one case, he substantially misquotes an author by rendering "potentially hazardous" as simply "hazardous."
- In all cases, the opinions of these researchers about the hazards of raw milk rely on three or fewer (often one) citation(s) of reports of outbreaks or case reports of illnesses that often inconclusively were associated with raw milk, with no attempt to thoroughly review the published literature on the subject or to compare the safety of raw milk to the safety of pasteurized milk or other common foods.
- Marler dismisses claims that raw milk is more nutritious but makes no attempt to reconcile old claims of large nutrient destruction based on feeding studies with modern claims of negligible nutrient destruction based on chemical assays.
- Marler judges the evidence in favor of raw milk by whether it can be "recommended" for certain uses. Raw milk advocates, however, are not currently fighting for governmental or other official agencies to recommend raw milk. Rather, they are fighting for the right of the producers and consumers of raw milk to engage in voluntary exchange and make their own decisions about what types of products to sell, buy, and consume.

may not conduct the appropriate tests to isolate the causative pathogens."

In 2005, there were just over 66,000 documented cases of foodborne illness, yet the CDC estimates that 76,000,000 such cases occur each year. This means that less than one out of a thousand cases are reported.

Cases of foodborne illness that occur within a reasonable time from the consumption of raw milk are likely to be reported at a much higher rate than other cases of foodborne illness because of the aggressive campaign that the FDA, CDC, and various state agencies have waged to monitor raw milk closely and "educate" the public about its dangers. This alone could cause a statistical association to appear, one that proves nothing except the existence of reporting bias.

Take, for example, the following hypo-

thetical scenario. A large outbreak of Salmonella affects 10,000 people. Most of them have minor symptoms ranging from queasiness to diarrhea. Ten of them call their doctors and ask if they should worry about it. The doctors ask them if they have recently drunk raw milk, eaten raw meat or poultry, visited a petting zoo, or played with a turtle—the usual suspects. Most of them have not, so the doctor says not to worry about it and to call back in a week if it persists or in a few days if it gets worse. But when one patient responds that he has drunk raw milk, the doctor is alarmed. She takes a stool sample and alerts the health authorities so they can monitor the populace for an outbreak. The authorities run a news campaign suggesting a possible association between Salmonella and raw milk from a local farm, and reiterate to the public that "drinking raw milk is playing Russian roulette with your health" and that Salmonella infections can produce permanent disabilities such as "reactive arthritis" if they go untreated. Out of the 10,000 people suffering from queasiness or transient diarrhea, about 100 have drunk raw milk; thirty of them panic and call their physician or the health authorities. The 9,900 who did not drink raw milk take comfort in the fact that they only eat safe foods such as cooked chicken and rinsed spinach and therefore only report their illness at the

FLAWS FOUND WITHIN STUDIES CITED AS IMPLICATING RAW MILK IN FOOD-BORNE ILLNESS

Either No Valid Positive Milk Sample or No Valid Statistical Association	67/70	(96%)
No Valid Positive Milk Sample	56/70	(80%)
Did Not Report Testing Milk Product	15/70	(21%)
Milk or Product Tested Negative	20/70	(29%)
Positive Milk Products, but No Test of Milk at Point-Prior-to-Sale	10/70	(14%)
Positive Milk Products, but Milk at Point-Prior-to-Sale Negative	6/70	(9%)
Report Did Not Concern Raw Milk	5/70	(7%)
No Valid Statistical Association with Raw Milk	43/70	(61%)
Case Report, Association Could Not be Investigated	10/70	(14%)
Outbreak, Association Nevertheless Not Investigated	21/70	(30%)
Statistical Association with Milk Product Not Shown to be Raw:	2/70	(3%)
Association Investigated but Not Found	3/70	(4%)
Case-Control Study Compromised by Publicity	4/70	(6%)
Report Did Not Concern Raw Milk	5/70	(7%)
No One Became III	1/70	(1%)
Neither Association nor Milk Sample	35/70	(50%)
No Evidence Anyone Consumed Raw Milk Products	7/70	(10%)
Insufficient Evidence Milk Product was Raw	3/70	(4%)
Outbreak Traced to Pasteurized Milk	2/70	(3%)
Outbreak Traced to Non-Milk Product	1/70	(1%)
Cause of Outbreak Completely Inconclusive	1/70	(1%)
Statistical Associations with Other Factors Discovered but Not Pursued	4/70	(6%)
Did Not Show that Pasteurization Would Have Prevented Outbreak	65/70	(93%)
Evidence that Pasteurization Would Not Have Prevented Outbreak	10/70	(14%)
Evidence that Pasteurization Was Not Necessary to Prevent Outbreak	7/70	(10%)

usual rate of 0.1 percent. Presto: a statistical association is born.

Since the availability of raw milk is limited, its consumption can also often be a marker for visits to specific farms, purchases from specific street vendors, or associations with specific groups of people. Because organisms that cause foodborne illness can also be spread through contact with animals, animal manure, infected people and other foods prepared by infected people, statistical associations with raw milk may arise in cases where the actual cause of the outbreak is contact with animals or their manure, person-to-person contact, or the consumption of other foods sold by raw milk product street vendors or served to guests during visits to family farms.

Harris (1987) provides an example in which this almost certainly occurred. Six people became ill with an identical subtype of Campylobacter jejuni. Four of them drank raw milk from a specific farm. Two of them, a mother and her infant, went camping with the farmer, consumed pasteurized milk from their dairy, and used goat manure as fertilizer in their home garden, but never drank any raw milk. What they all shared in common was contact with the farmer and perhaps contact with manure or other objects from the farm. When the authors enlisted these people in a case-control study, there was a statistical association between drinking raw milk and illness. When they tested the milk for C. jejuni, however, none could be found. The authors took this as another example where a statistical association proved that raw milk caused illness but the test for the pathogen proved inaccurate. A much more reasonable interpretation is that drinking raw milk merely acted as a marker for contact with the farmer or his farm.

Finally, most studies associating raw milk with illness never pinpoint where along the line of production the contamination occurred. If contamination occurred after the point at which the milk would have been pasteurized, then pasteurization could not have prevented the outbreak. Such a study is useful for identifying the cause of an outbreak, but it is not useful for addressing the question of whether pasteurization makes milk safer. The best examples of this are the numerous outbreaks associated with Mexican-style soft cheeses, which are often made by unlicensed vendors in home kitchens where the producers may utilize utensils and countertops that have been exposed to raw meats and other sources of pathogenic bacteria. For cultural reasons these vendors have traditionally used raw milk, but had they used pasteurized milk the cheese would not have been any less likely to become contaminated during production.

RAW MILK AND FOODBORNE ILLNESS: WHAT THE LITERATURE REALLY SHOWS

When we examine the literature that purportedly implicates raw milk in foodborne illnesses with the aforementioned sources of bias in mind, what we find is that only a small portion of these studies provides convincing evidence. As shown in the table on page 94, fifty percent of these studies provide neither a statistical association with raw milk nor a milk sample that has tested positive. While nearly two-thirds of these studies lack statistical associations, an even greater eighty percent of them lack the more important piece of the puzzle, a valid sample of contaminated milk. In fact, fully 96 percent of these studies lack one or the other.

In a few cases, the studies lacked these associations because they never intended to implicate raw milk in the first place. One of these implicated raw caribou meat (Greenstone, 1993), two implicated Mexican-style soft cheese without sufficient evidence that it was made from raw milk (Cody, 1999), and several were even traced to pasteurized milk (MMWR, 1982; Ikeda, 2005). In one (Ikeda, 2005), the abstract refers to the skim milk that formed the "raw material" for the powdered product that sickened over 10,000 people in Osaka, Japan. This might explain why the study would have turned up on a keyword search for "raw milk outbreak," but it does not detract from the fact that powdered skim milk is not "raw milk."

Only five of seventy studies provide decent evidence that pasteurization would possibly have prevented the outbreak (Orr, 1995; Porter, 1980; Hudson, 1984; Schildt, 2006; Danielsson-Tham, 2004). They provide reasonable evidence that the milk was responsible for the outbreak (the latter three are the most convincing) and provide

When we examine the literature that purportedly implicates raw milk in foodborne illnesses with the aforementioned sources of bias in mind, what we find is that only a small portion of these studies provides convincing evidence.

further evidence that the milk was contaminated before the point at which it would ordinarily be pasteurized.

Even these studies, however, do not suggest that pasteurization would have been necessary to prevent the outbreak. In the first (Orr, 1995), the cows were confined to a milking parlor with marked fecal contamination; grass-feeding on open pasture and proper sanitation may have prevented this outbreak. In the second (Porter, 1980), the milk was intended for pasteurization but the pasteurizer ceased operating for several hours due to a severe storm; the hygienic conditions on a farm that produces milk for pasteurization are probably inferior to those of a farm that sells milk for consumption as raw milk, so this study should be analyzed separately from the others. In the third (Hudson, 1984), the report was less than a page long and provided no information on the hygienic conditions at the farm or the diets of the animals, so we do not know what other measures could have been taken to prevent the outbreak. In the fourth, a long-running perpetual outbreak within the farm family (Schildt, 2006) resolved after the farmers replaced their defective milking equipment. In the final study (Danielsson-Tham, 2004), the outbreak was caused by the use of Swedish "summer farm" milk (which involves the animals grazing in the forest) for soft cheese when this milk is traditionally used only for hard cheeses consumed in the winter; following traditional guidelines would likely have prevented the outbreak.

In the other 65 studies—a full 93 percent of them—no evidence that pasteurization would have prevented the outbreak can be found.

BULK TANK MILK SURVEYS AND OTHER IRRELEVANT CITATIONS

Marler's review contains a number of citations that provide no useful information at all for assessing the risk of foodborne illness associated with the consumption of raw milk. These include eight surveys of pathogens in bulk tank raw milk. Most of these examine the raw milk from farms that intend to pasteurize it, which should be analyzed separately from raw milk intended for consumption as raw milk. None of them analyze the

MORE MARLER PROPAGANDA

In mid-August, William Marler issued two more pieces of anti-raw milk propaganda. One was a press release calling on California Governor Arnold Schwarzenegger to veto SB 201, the 2008 Fresh Raw Milk Bill, which would guarantee a supply of safe raw milk to citizens of California; the other was a video of a sick child, entitled "HUS from raw milk, Chris Martin," posted at http://www.youtube.com/watch?v=I0DCbIFU_0U.

Marler has taken the cases of Chris Martin and another child, Lauren Herzog, suing Organic Pastures Dairy for the virulent *E. coli* infection that led to their hospitalization. While we do not wish to minimize the suffering of these children, it is important to point out the many errors in the video. Marler claims, for example, that both children had *E. coli* O157: *H7* detected in their stools, but only Lauren Herzog had a positive test and Chris Martin did not. The video implies that there were six youngsters sickened and on life support with hemolytic uremic syndrome (HUS). Actually, only two children were ever hospitalized. They have both since recovered and do not have any kidney failure. The video fails to mention the fact that doctors gave Chris antibiotics when he was wearing a hospital wrist band that warned medical personnel not to give antibiotics. Antibiotics and recovered quickly and were never hospitalized—all this occurred during the massive outbreak of foodborne illness ultimately traced to spinach from the Salinas Valley in California. (According to Organic Pastures owner Mark McAfee, the Martins stated that Chris was a spinach kid and had eaten spinach at the same time he had drunk raw milk.)

The dates on the video also raise questions as they do not correlate with a visit by McAfee to see the children personally. On the date of the video, Mark found them not in bed, but up and about, seemingly quite healthy. Finally, the video names Organic Pastures as the raw milk source of the pathogen. No matching pathogen or any pathogens were ever detected in the products the children drank or in any test at the dairy, including fresh manure from any of the dairy cows. In fact, the California Department of Food and Agriculture paid Organic Pastures a cash settlement and signed an agreement so that they would not get sued for a false recall. Remember, these illnesses all occurred during a massive outbreak ultimately traced to spinach.

David Gumpert provides more details on the Marler video on his blog, www.thecompletepatient.com, referring to the tape as "sloppy" and the timing of its release as "pure propaganda." "Part of the problem is that our government and public health authorities have been able to get away with half-truths and propaganda and sloppy reports for a long time in this struggle," says Gumpert. "Judges in California, New York and Pennsylvania have expressed their distaste for examining serious and precise evidence on the other side, preferring instead to simply accept the party line expressed by the regulators. So it's no surprise that the regulators and their supporters like Marler are sloppy—no one makes any demands on them to do otherwise." He praises the Weston A. Price Foundation as one among several organizations that are fighting back with careful refutations of the scientific literature on raw milk.

concentrations of those pathogens to model the expected risk of illness from consuming them or make comparisons between the incidence of pathogens before and after pasteurization. One of these (Gaya, 1987) analyzed the presence of bacteria in raw sheep milk that could contribute to early "blowing" of cheese, which causes the accumulation of gas that gives an off-flavor to the cheese, and concluded that raw milk should be efficiently refrigerated before and during transportation.

In addition to the previously mentioned outbreaks traced to pasteurized milk and caribou meat, the final irrelevant citation is a letter (Edwards, 2006) pointing out the failure of a previous article to credit certain people for their contributions to the discovery of brucellosis.

THE BENEFITS OF RAW MILK

A number of the references cited in Marler's review actually provide impressive evidence about or arguments in favor of the benefits of raw milk. These fall into two categories: reports of outbreaks that, despite the opinions of their authors, reveal the remarkable failure of raw milk to transmit disease from the pathogens that sometimes inhabit it; and letters extolling the virtues of raw milk or defending the right of producers and consumers to freely exchange it.

The two pathogens that raw milk seems to be remarkably resistant to transmitting are *Campylobacter jejuni* and *Coxiella brunetii*. *C. jejuni* seems to be unable to survive in raw milk for any significant length of time, while *C. brunetii*, which causes Q fever, appears to only do so through inhalation.

CAMPYLOBACTER JEJUNI

Doyle and Roman (Appl Environ Microbiol. 1982;44(5):1154-9) found that *C. jejuni* can cannot grow in milk, and that if they inoculate milk with massive amounts of it, it survives twice as long in sterile milk as in raw milk. Marler did not cite this study within his review, but it helps to explain the findings of the following studies that he did cite.

Hutchinson and others (1985) tried blaming raw milk for an outbreak of *C. jejuni* in a village where virtually everyone drank raw milk from a single farm. They found the organism in rubbish heaps and watering holes, but not in the milk or milk filters. Frustrated with this result, they cultured samples right on the farm instead of carrying them in sterile containers to a sterile working space in the laboratory as is usually done, and the milk and milk filters proved contaminated. They claimed the reason they had to culture the milk on the farm was because the C. jejuni was unable to tolerate the "natural antibacterial effect of fresh milk" for the several hours it took to transport the milk to the lab, but offered no explanation of how the milk could have gotten anyone sick if all the C. jejuni within it would die within hours of milking. When they tried quantifying two of the positive samples after some unspecified time, the milk turned up negative. When they tried subtyping two other samples soon after collection, they failed because the bacteria could not survive long enough for them to finish the procedure.

Warner (1986) found *C. jejuni* in bile samples from cows culled from their herds, but found no *C. jejuni* in milk filter samples, despite the visible presence of fecal contamination, giving indirect support to the idea that the "natural antibacterial effect of fresh milk" may have killed any *C. jejuni* that would have found its way into the milk filters.

Over and over again, investigators blame *C. jejuni* outbreaks on raw milk despite negative milk samples. In explaining how certified raw milk could cause *C. jejuni* infection without being contaminated with *C. jejuni*, Potter (1983) wrote the following: "*C. jejuni* has been cultured with relative facility from a number of different environments, including human and animal feces, bile, poultry meat, and water. However, despite the frequent association of raw milk with *C. jejuni* infections, attempts to recover the organism from milk have usually been unsuccessful."

Thus, we are supposed to believe that the *C. jejuni* is always present in the milk, just never detected. What these researchers never explain is why this mysterious quality of milk that somehow destroys the organism's ability to grow in a culture dish in the laboratory would simultneously do nothing to stop it from thriving within a person's gastrointestinal tract. Since the laboratory medium is specifically designed to Over and over again, investigators blame C. *jejuni* outbreaks on raw milk despite negative milk samples. encourage the growth of the bacteria while the acidty of the stomach is specifically designed to kill such pathogens, this contradiction is almost impossible to entertain. A much simpler and much more logical conclusion is that when the test turns up negative, the bacterium simply isn't there.

While Hudson (1984) provided convincing evidence of *C. jejuni* illness transmitted by raw milk, most of the studies claiming to find such evidence have instead supported the concept that it is incredibly difficult for the organism to survive in such a medium. This never stops investigators from blaming raw milk, however. Even Schmid (1987) blamed a local outbreak of *C. jejuni* on raw milk when all of the milk tested negative and 360 samples of locally sold chicken tested positive!

Q FEVER

Fishbein (1992) investigated a Q fever outbreak at a psychiatric institution in France. A herd of goats had been vaccinated for the organism that causes the disease, *Coxiella brunetii*, but the authors cited evidence that vaccination offers no protection and even increases shedding of the organism into the milk. The authors found that, statistically, those who either drank raw milk or worked with animals were more likely to show evidence of immunity to the organism. Those with immunity were far more likely to have had an acute illness in the recent past, which suggested that the acute illness was an episode of Q fever. Those who drank raw milk, however, were not any more likely to have had an acute illness in the recent past than those who had no immunity to the organism. The association between acute illness and immunity was isolated to those who worked with the animals, suggesting that even drinking milk contaminated with the organism was for some reason capable of conferring immunity but incapable of causing illness! This finding was consistent with the laboratory evidence the authors cited in the introduction showing that all attempts to spread Q fever to laboratory animals by feeding them raw milk inoculated with the organism failed and supports the conclusion that many others had reached, that Q fever is only spread through inhalation.

LETTERS IN SUPPORT OF RAW MILK

The Campbell (1996) citation is a series of letters primarily supporting raw milk. The first cites evidence that cheese made from pasteurized milk is just as dangerous as cheese made from raw milk and in some cases becomes contaminated at the retail level where the issue of pasteurization is irrelevant. The second letter was from the secretary of a local medical committee which objected to the suggestion of the editorial to ban raw milk cheese, which he said would "condemn cheese lovers to a pasteurized and tasteless product." The third letter supported the idea of banning raw milk cheese but offered no evidence in support of it. The fourth and final letter was from a cheese monger who wrote that pasteurized cheeses have a dull and subdued character and that though they are sometimes good, only raw milk cheeses can be exceptional. He stated that raw milk cheese is more nutritious and less likely to be contaminated after production, and concluded that "it is unhelpful for the editorial to perpetuate the myth that universal pasteurization is the answer."

The Ormsbee (1980) citation is a letter arguing that raw milk is unfairly singled out for pasteurization and regulation. The author stated

HOW WE DID IT IN NORTH CAROLINA By Ruth Ann Foster

In January 2006, rumors began spreading that the North Carolina Department of Agriculture (NCDA) had plans to require dye in all raw milk sold for animal consumption. Commonly referred to as pet milk, it is presently the only legal means to purchase raw milk in North Carolina. Cow shares had been legal until 2004, when a law that banned them was surreptitiously slid into place at the end of the legislative session. While the dye rumor lurked, we began working with state legislators to reverse the cow share ban. Legislators were equally unaware of the NCDA's ability to enact a "law" without due process. After countless Internet searches, I stumbled upon the web site of the North Carolina Office of Administrative Hearing (NCOAH) where I learned about the rule making process.

Each state has an Administrative Procedures Act, which grants state agencies like the NCDA, the authority to make rules. Completing the rule making process, rules become "law," often without public knowledge. In North Carolina, ten letters of objection to a rule sent to the NCOAH during the process, will delay the rule and force it to the state legislature for review at their next session. A legislator must then introduce a bill to reverse the rule, which is known as a disapproval bill, or the rule will become effective at the end of session.

The first step to defeat this rule was to get our letters of objection to the Rule Review Commission at the NCOAH. The RRC staff and attorneys were a valuable source of information and helped guide us through the process. We learned that the Commission would review the rule to determine that NCDA had the authority to create the rule and followed the established guidelines. If these criteria were met, the Commission would vote to adopt the rule. Although the Commission voted in favor, our letters of objection successfully delayed the rule.

that when he had worked with the National Institutes of Health (NIH), his group had observed that people who drank raw milk rarely got Q fever, and referred to later research showing that it is spread through inhalation rather than by drinking milk. He posed the question, "Can anyone see the danger in using every contingency to extend the power of the state?"

THE POLITICS OF RAW MILK

A number of the studies referenced in Marler's review demonstrate the unfortunate politicization of the raw milk literature. Certainly, there should be forums to debate policy, but scientific journals should be reserved for objective and unbiased evaluation of scientific data. However, in some cases they have served as a platform to hurl insults at raw milk advocates or discuss methods for hurting the commercial interests of farmers.

For example, Steele (2000) began his review by calling pasteurization "one of public health's triumphs over the ignorance and superstition of past ages" and lauded the process for stimulating commercial developments. Gutierrez-Garcia (2006) lauded the pasteurization movement for leading to the centralization of the milk industry in Spain. Chin (1982) stated that raw milk advocates view the public health agencies' opposition to raw milk as a conspiracy and find it incomprehensible that raw milk could produce disease in some people without producing the same disease in 100 percent of the people who drink it. He stated that, because raw milk advocates have lost their case in the scientific and medical communities, they have turned to the legal and political arena to take advantage of the "current climate of heightened concern for personal liberties, freedom of choice, and frequent rejection of science."

The Schmida (1983) citation is a conversation between two MDs. One wrote a previous article linking raw milk without any evidence to a *Salmonella dublin* outbreak. The other lamented that he had not named the specific dairy in his article, thus decreasing the likelihood that new regulations and the use of social pressure could be used to limit the production of raw milk. The first doctor responded that he did not name the specific dairy because it was important to make sure that political action against raw milk target all raw milk farmers equally!

Edwards (1988) boasted that, despite their inconclusive evidence, their publicity campaign decreased the demand for raw milk in the local area by up to 30 percent.

Headrick (1990) argued that because raw milk illness is more common in states where it is legal, raw milk should be banned in all states to reduce the spread of illness. The authors did not consider whether people may be more likely to admit drinking raw milk where it is legal than where it is not. The Lancet review, "Hazards of Raw Milk" (1981), advocated a "complete ban on the sale of raw milk" to avoid "unnecessary discomfort" suffered by the "unsuspecting public." Hutchinson (1985) noted that British Medical Officers of Environmental Health are often reluctant to issue pasteurization orders to raw milk farmers because they are "damaging to the farmer and unwelcome to the public," and suggested making it easier on them by simply banning all raw milk outright.

Keene (1997) completely fabricated a "prolonged outbreak" of *E. coli* by declaring the very few people who happened to be raw milk drinkers from among those within the general population who sporadically became ill over time

The next hurdle was to find a legislative sponsor for the disapproval bill. Representative Pricey Harrison was immediately supportive and introduced HB 2524 on May 26, 2008. She enlisted several co-sponsors who were equally supportive and vocal.

With HB 2524 in place, we began our lobbying campaign. Following the advice of WAPF attorney Pete Kennedy, we strictly maintained that HB 2524 was raw milk for animal consumption and did not confuse the issue with human consumption. Thanks to WAPF for sending out our Action Alerts to all North Carolina members. Advocates across the state were provided concise talking points, used when visiting or contacting their legislators. Action Alerts allowed us to carefully orchestrate which legislators to target and when.

The first hearing in the House Agriculture Committee was the most difficult. Thankfully, we had a large enthusiastic group of advocates in attendance. After the state epidemiologist, the NCDA director for food safety, and the dairy industry lobbyist presented arguments against raw milk for human consumption, Representative Harrison intervened by stating that HB 2524 was not intended for human consumption. HB 2524 passed out of the committee 16 to 3.

Recognizing the support the bill was gaining, the NCDA offered a compromise, which Representative Harrison skillfully negotiated. In exchange for labeling all pet milk containers, we were able to get unpasteurized milk exempted from the definition of commercial feed. This released pet milk producers from having to be licensed as commercial feed manufacturers under the NCDA.

Once the compromise was reached, the NCDA enlisted support of the state health officials. With full support, HB 2524 quickly passed through the House and then unanimously through the Senate. During our campaign, many legislators expressed interest in making raw milk available for human consumption, which is our goal for the next session.

as "raw milk-associated cases." The "outbreak" began when the investigators started identifying cases and ended as soon as they got a court order prohibiting the farmer from selling milk, even though the rate of E. coli infections never went up or down. The authors lamented that it is "easier said than done" to "stop people from drinking raw milk" and that sales of the milk in question had "continued until the dairy was forced out of the retail business." Legislation to outlaw the retail sale of raw milk in that state (Oregon) had recently died in committee. The authors concluded that "short of an outright ban on sales," the next best solution was "continuing consumer education and increasing financial risks for suppliers."

THE KEY ISSUES

The key issues concern the question of whether raw milk is uniquely dangerous and the question of whether producers and consumers have the right to engage in voluntary exchange. The truth is that raw milk is no more dangerous than many other common foods and may even be safer than pasteurized milk. Even if raw milk were uniquely dangerous, which it is not, consumers would still be entitled to drink it if they are aware of the risks.

Between 1980 and 2005, 41 outbreaks were reported to the CDC attributing 19,531 illnesses to the consumption of pasteurized milk and milk products. This is 10.7 times the number of illnesses attributed to raw milk during the same period. The FDA, CDC and USDA estimate that 0.5 percent of milk consumed is raw. This estimation assumes that no raw milk is sold in states where its sale is prohibited. If raw milk sales in these states are similar to other states, however, raw milk may represent 1 percent of the nation's milk sales. Using both of these figures, the risk of foodborne illness associated with raw milk on a per-serving basis is between 87 percent greater than that associated with pasteurized milk and 7 percent lower than that associated with pasteurized milk. When one considers the overwhelming evidence compiled in the previous sections showing that the raw milk literature is skewed by a systematic bias against raw milk and a heavy degree of politicization, these figures could theoretically be altered radically in favor of raw milk. It is entirely within the realm of possibility, then, that raw milk is much safer than pasteurized milk.

Even if raw milk were slightly more dangerous than pasteurized milk, it would still be much safer than many other common foods. For example, the FDA, USDA and CDC jointly released a "quantitative risk assessment" for foodborne Listeria that estimated non-reheated hot dogs carry 9.2 times the per-serving risk for this disease as raw milk and deli meats carry 10.8 times the per-serving risk for this disease as raw milk.¹

According to the founding documents of the United States, personal liberties are self-evident and inalienable rights, not privileges endowed by state health departments, federal bureaucracies or personal injury lawyers. There is no scientific evidence to justify the singling out of raw milk from among other foods for prohibition or damaging regulation, and there is no legitimate constitutional or philosophical basis on which Americans or anyone else should be deprived of the basic human right to determine what to eat and drink.

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UPDATE ON CANADA

Durham dairy farmer Michael Schmidt won a temporary victory on July 31 when Newmarket Superior Court Justice Michael Brown rejected the request by the York Regional Municipality to find Michael in contempt for selling raw milk. The municipality claimed Michael was in contempt for violating an order issued by the Newmarket Superior Court that he comply with a May 2007 directive from public health authorities to stop selling unpasteurized milk. Instead, Justice Brown scheduled a three-day trial on the contempt charge with the trial scheduled to begin on September 10.

One of the sanctions the municipality had been seeking against Michael on the contempt charge was jail time. The Justice found, with that being the case, it would have been unjust not to give the farmer an opportunity to challenge the evidence at trial that the municipality presented against him. Michael has long delivered milk in the York region to shareholders of the cow share program he operates. He and his shareholders contend he is not selling milk but rather selling his milking, boarding and distribution services to those who have part-ownership in the cows at his farm.

In addition to the contempt charge, Michael is also facing a trial for twenty violations of the Ontario Health Promotion Protection Act and the Ontario Milk Act. That trial is scheduled to take place in January 2009 (Sources: Canadian Press 7/31/08 & National Post 7/31/08).

Michael Schmidt will present a film on his farm and "The Milk Wars" in Canada at Wise Traditions 2008, our ninth annual conference, held in San Francisco, November 7-10.

UPDATES By Pete Kennedy

There have been significant developments over the past few months concerning producers' rights in selling or distributing raw dairy products and consumer access to the same. In California, a bill that would ensure the availability of raw milk and raw milk products for consumers in that state is close to becoming law. In New York there has been a setback for those fighting the restrictions the state has in place on the distribution of raw milk. This update begins with Pennsylvania where the opposition is growing to the permit requirement imposed on raw milk producers by the state.

PENNSYLVANIA: On August 2 Pennsylvania State Senator Mike Folmer hosted the "Real Deal About Real Milk" Freedom and Liberty Seminar in Lebanon; approximately three hundred raw milk consumers and farmers heard presentations on science, health and legal issues pertaining to raw milk. The primary focus of the seminar was on the question of whether it is necessary for raw milk producers in Pennsylvania, selling directly to consumers, to obtain a permit from the Pennsylvania Department of Agriculture (PDA). Talks were given by representatives of four different organizations: the Communities Alliance for Responsible Eco-farming (C.A.R.E.), a private buyers club consisting of over 3800 consumers and farmers; the Pennsylvania Independent Consumers and Farmers Association (PICA), a group formed in response to the PDA-led raid at Mark Nolt's farm last August; the Weston A. Price Foundation (WAPF); and the Farm-to-Consumer Legal Defense Fund (FTCLDF). At the end of the day, it was clear that all four organizations were united in their support of the right of Pennsylvania farmers to sell raw milk and raw milk products they produce direct to consumers without a permit.

Bill Reil, Vice President of PICFA and an expert on the Constitution of the Commonwealth of Pennsylvania, was persuasive in arguing that the right to sell raw milk direct to consumers without a permit was already guaranteed by the commonwealth's constitution. Reil cited the Declaration of Rights contained in Article 1 of the Pennsylvania constitution which provides: "All men are born equally free and independent, and have certain inherent and indefeasible rights, among which are those of enjoying and defending life and liberty, of acquiring, possessing and protecting property and reputation, and pursuing their own happiness."

He explained that these rights are forever protected by Section 25 of the Declaration of Rights which states: "To guard against transgressions of the high powers which we have delegated, we declare that everything in this article is excepted out of the general powers of government and shall forever remain inviolate."

At the time the Pennsylvania constitution went into effect, the right of dairy farmers to sell direct to consumers without a permit was recognized—meaning that any subsequent requirement of a permit for a producer to sell raw milk directly to the consumer would violate the constitution. Riel's talk had the attention of the farmers in the audience. By the end of the seminar, a number of licensed farmers were speaking to him about the possibility of dropping their permits.

In attendance at the seminar was Bill Chirdon, Director of PDA's Bureau of Food Safety and Laboratory Services. Chirdon is trying to convince unlicensed farmers selling raw milk to get permits. He has issued warning letters to at least fifteen farmers, eleven of whom are C.A.R.E. members, informing them that they must obtain a raw milk permit to be in compliance with Pennsylvania law. There is evidence that FDA is putting considerable pressure on Chirdon to get all Pennsylvania farmers selling raw milk licensed.

Glen Wise is an important test case for the agency in their attempts to get all milk producers licensed. Glen is facing a hearing before a magistrate on a charge of selling raw milk without a permit at a farmers' market in Palmyra (see *Wise Traditions*, Summer 2008). The hearing has been postponed while the agency is paying for all the testing the farmer needs to have in order to get licensed. Glen has been pressured to get a permit by members of the Mennonite community in which he resides. Even if Glen obtains a permit, it still would not allow him to sell all of the raw milk products he currently provides to his customers. Pennsylvania law prohibits the sale of all raw dairy products other than raw milk and raw cheese aged more than sixty days.

It is unclear at this time whether the four organizations will resort to the courts or the legislature to get the right to sell direct without a permit recognized by the state. Senator Folmer indicated it would be difficult to pass legislation codifying an exception to the permit requirement in a statute. If Bill Reil is correct, the exception is already guaranteed in law and all that is needed is for PDA to change its enforcement policy on the permit requirement to one that obeys the commonwealth's constitution.

Meanwhile, PDA is continuing its efforts to shut down another unpermitted farmer, Mark Nolt. On August 12, PDA filed a motion in the Commonwealth Court of Pennsylvania seeking a hearing for the issuance of a permanent injunction against Mark selling all raw dairy products. The department has abandoned any hope of convincing Mark to obtain a raw milk permit and is set on trying to take away the farmer's livelihood.

Previously, on July 2, 2007, the Commonwealth Court of Pennsylvania had issued a preliminary injunction enjoining Mark from selling raw milk without a permit and from selling manufactured raw dairy products. After PDA employees

had purchased raw milk and raw milk products twice from Mark at a Carlisle farmers' market on July 6 and 13, the Commonwealth Court issued a contempt order on August 2, 2007 authorizing PDA to seize and discard any and all raw milk and raw milk products in Mark's custody and control. The order also authorized the Attorney General of the Commonwealth of Pennsylvania to arrest Mark and incarcerate him until such time as he indicated to the Court that he would no longer offer for sale "any dairy manufactured from or containing raw milk without obtaining the proper permit." Pursuant to the order, the agency executed two raids on Mark's farm on August 10, 2007 and this past April 25, confiscating over \$100,000 in product, supplies and equipment (see *Wise Traditions* Summer 2008).

On June 24, 2008, the Commonwealth Court issued an order directing PDA to show cause why the contempt order should not be dismissed for want of prosecution. The order gave the agency thirty days to respond. When the deadline passed without any response from PDA, the Court issued another order on August 1, dismissing the contempt order due to PDA's failure to file a timely reply to the June 24 order.

PDA reacted to the dismissal of the contempt charge by sending undercover agents to Mark's farm to purchase raw dairy products on August 4 and 8. Mark was present on the farm for the first attempted buy and asked the two agents, "Did Bill send you?"—meaning Bill Chirdon; the agents left red-faced and empty-handed.

Four days later when Mark was not present, Pennsylvania State Trooper Kirk Perkins had more success. Perkins was able to purchase two gallons of raw milk from Mark's son, telling him that Mark's friend and PICFA President Jonas Stoltzfus had mentioned that Mark was selling raw milk. Stoltzfus had never talked to Perkins. An affidavit from Perkins was included in the August 12 motion for a hearing to consider a permanent injunction against Mark.

No date as of this writing had been set for a hearing to consider the agency's motion. The court could reject the motion because the issues PDA wants the court to address could have been brought up by a timely response to the June 24 show cause order. Mark's customers are afraid that if the permanent injunction is granted, PDA will be raiding his farm again.

CALIFORNIA: On June 5 State Senator Dean Flores, Chairman of the Senate Agriculture Committee introduced Senate Bill 201. The bill would eliminate the coliform requirement imposed by AB1735 of no more than ten coliform bacteria per milliliter at the final container (see *Wise Traditions* Winter 2007) for licensed retail raw milk producers opting "to develop and maintain an individualized Hazard Analysis and Critical Control Points (HACCP) plan for each critical process in the production of raw milk on the dairy farm." Any HACCP plans must have the approval of the California Department of Food and Agriculture (CDFA) and the California Department of Health (CDH). CDFA and CDH would also have power under SB 201 to suspend or revoke approval of a HACCP plan without notice.

For those adopting HACCP plans, testing would be much more rigorous than under existing law. SB 201 would require that those under a HAACP plan have their milk tested twice a week for coliform, standard plate count and *E. coli O157: H7* at a state-accredited lab. Once a month CDFA would test for pathogens including but not limited to *Campylobacter jejuni*, *E. coli O157:H7*, *Listeria monocytogenes* and salmonella. Producers testing positive for any pathogens could have their sales suspended by CDFA, but those under HACCP per SB 201 would not be subject to any suspension of sales for high coliform counts.

SB 201 has been designated an urgency bill due to the threat the current coliform requirement poses to the ability of the state's two licensed raw milk dairies—Organic Pastures and Claravale—to stay in business. As an urgency bill, SB 201 must be approved by a two-thirds majority vote of the legislature. It would go into effect immediately upon signing by the governor. SB 201 has been passed unanimously by the Assembly and by a large majority by the California Senate; and it is now awaiting the governor's signature. The bill passed out of the Senate despite a late appearance before the Senate Agriculture Committee by CDFA to oppose SB 201; in April the agency had refused to send a representative to testify at a major hearing before that same committee. Congratulations to those who have worked for the bill's passage.

Meanwhile, there has been no resolution yet to the federal criminal investigation by the U.S. Attorney's office in Fresno into Organic Pastures Dairy Company (OPDC). OPDC's attorney, Gary Cox (General Counsel for the Farm-to-Consumer Legal Defense Fund), is in negotiations with the U.S. Attorney over a possible settlement to the case. It is believed FDA wants to either eliminate or severely restrict shipments of OPDC raw dairy products in interstate commerce. The colostrum products the company ships in interstate commerce appear to be unaffected by the investigation because they are regarded under federal law as dietary supplements, not as dairy products.

NEW YORK: On May 16, hearing officer Susan Weber issued her long-awaited report on the January 17 hearing concerning a motion by the New York State Department of Agriculture and Markets (NYSDAM) asking Meadowsweet Dairy, LLC to show cause why the dairy should not be shut down for operating a milk plant (referring to the sale of raw dairy products other than milk) and selling raw milk without all the necessary permits (see *Wise Traditions* Winter 2007 and Spring 2008 issues for background on the case). As expected, Weber sided with the agency.

The major issue at stake between the two parties was whether the LLC was selling milk under state law which, if so, would require the dairy to obtain a permit. Under the state dairy code, "every person who sells, offers for sale, or otherwise makes available raw milk for consumption by consumers shall hold a permit to sell raw milk issued by the commissioner" Weber found that the LLC members were "consumers" under the law and that in distributing raw milk to the LLC members the dairy was "making available" raw milk. The hearing officer also found that in processing raw milk into other raw dairy products the LLC was operating a dairy plant and needed a dairy plant permit in addition to being required to obtain a milk dealer's license to distribute any products manufactured at the dairy plant. Under state law the only raw product a dairy plant can legally manufacture and sell is cheese aged more than sixty days.

Weber's recommendations at the end of her report were that the New York Commissioner of Agriculture, Patrick Hooker, give the LLC thirty days to apply for the raw milk, dairy plant, and milk dealer's permits with the Commissioner to issue a cease and desist order to the dairy if this was not done. In addition, the hearing officer recommended that the Commissioner fine the LLC \$1000 for "manufacturing, producing, possessing, selling and offering or exposing for sale raw milk and raw milk products under insanitary conditions." Weber found that the conditions at Meadowsweet "were not sanitary" and that the products produced there may have been "injurious to health." The report failed to account for the fact that none of the LLC's members had ever become sick from consuming the dairy's products and did not mention that all the members had a chance to the see the farm's production area themselves and evidently weren't bothered by any of the conditions they observed there.

On July 23 Commissioner Hooker issued to the LLC an order adopting Weber's recommendations except that instead of allowing a thirty-day grace period for the dairy to file licensing applications, the order to cease and desist the production and distribution of raw milk and raw milk products went into effect immediately. The commissioner forbade the dairy from selling milk until it obtained a raw milk permit and prohibited Meadowsweet Dairy LLC from ever selling dairy products again, holding that even with a dairy plant license they can only produce pasteurized dairy products other than raw cheese aged at least sixty days.

Meadowsweet's attorney, Gary Cox, has appealed the Commissioner's order to the Albany County Supreme Court—the same court scheduled to hear the LLC's declaratory judgment suit against NYSDAM. That suit asks the court to rule that the LLC and its operations are beyond the jurisdiction of the agency; NYSDAM has filed a motion to dismiss the complaint and the court is likely to rule on that motion sometime this fall.

CONNECTICUT: On July 22, the Simsbury Town Farm Dairy voluntarily suspended its sales of raw milk and all other dairy products after four people who drank milk from the farm contracted *E. coli* O157:H7. The dairy is a non-profit business run by the group Friends of Town Farm Dairy on land leased from the town.

According to its website (www.townfarmdairy.org), "The Friends of Town Farm Dairy Inc. began as a group of concerned citizens working toward preserving the operation of the Town Farm Dairy on land which was originally deeded to the Town of Simsbury as a poor farm" Among the organization's goals are promoting local food sources, providing for the poor, involving local school children in-farm-related activities and providing workshops in dairying, organic farming and cheesemaking. The dairy has an on-farm store selling pasteurized and unpasteurized dairy products to its customers until it suspended sales.

The investigation by the Connecticut Department of Agriculture (CDA) into the dairy found no *E. coli* in any of the milk samples taken; but after conducting numerous tests of the farm's cows, property and equipment, the agency found *E. coli* in the feces of one of the cows. As far as is known, the agency did not check to see if the subtype of *E. coli* found in the cow's feces was the same as that found in the stool samples of those who became sick. In a letter written to the farm, CDA did not identify the cow as the "the most likely cause" definite source of the *E. coli* O157:H7 contamination. but rather as "the most likely cause." The agency still was not sure how the bacteria got into the milk.

The CDA has told the dairy it can resume selling raw milk when it has met conditions set by the agency. In the meantime the dairy is selling milk to a pasteurization plant at about one-fourth the price it was getting for milk sold in its store. An official for the Town Farm Dairy indicated that the farm might not be able to survive financially unless the state quickly reinstated its raw milk sales. A couple of farmers the dairy had hired last year had left the farm at the beginning of July, leaving board members of Town FarOm Dairy and volunteers to milk the cows and run the day-to-day operation. (Sources: Hartford Courant 8/9/08, 7/23/08.

For the latest developments on the cases covered in this update, go to www.thecompletepatient.com. Those who have not joined the Farm-to-Consumer Legal Defense Fund are encouraged to do so. Membership applications are available online at www.farmtoconsumer.org or by calling (703) 208-FARM (3276); the mailing address is 8116 Arlington Blvd, Suite 263, Falls Church, VA 22042.

Healthy Baby Gallery



The Reitzig family welcomes healthy, hearty Duncan Paul Reitzig, born August 2, 2008 and weighing over seven pounds. His mother, Liz Reitzig, is the Bowie, Maryland chapter leader and head activist for raw milk in Maryland. Her joyful, healthy pregnancy was supported by daily raw milk and cod liver oil.

Phebee Ashour, pictured at 17 months, has been raised on raw milk, grass-fed beef, cod liver oil, butter oil and high quality eggs from the local farmer's market. Her parents Dana and Bernard Ash, report that she turns her nose up at pasteurized milk and she would eat grass-fed beef for breakfast, lunch and dinner if they let her! She does not eat any sugar or flour and has never been sick or had any allergies or ear infections.





Mason Dean Scarborough, pictured at two months of age, weighed nine pounds, nine ounces at birth. His mother, Tonya Scarborough, reports that he is a friendly, healthy, happy baby and he has slept through the night since he was two months old. Mom didn't take any vitamin supplements during the pregnancy, but instead ate lots of liver, good quality eggs, homemade sauerkraut and bone broths, grass-fed beef, raw dairy products including butter, milk, cream, and cheese (thanks to Organic Pastures dairy), and the occasional dinner of raw sushi with roe. Mason lives with his Mom and Dad and three older sisters in Monrovia, California.

Please submit your baby and raw milk granny photos to Liz Pitfield at liz@westonaprice.org. Be sure to label photographs with the full name of the baby.

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WESTMINISTER, MARYLAND LOCAL CHAPTER EVENT

On July 13, 2008, the Westminster, Maryland WAPF chapter hosted a backyard potluck and home garden tour for novice gardeners.

ABOVE: Guests enjoy good conversation and delicious traditional food.

UPPER RIGHT: Featured speaker Paul Conaway, father of chapter leader Amy Conaway, explains to Don Fowles and Sally Zimmerman how to recycle old cartons as plant protectors.

LOWER RIGHT: Paul Conaway demonstrates how to start sweet potato plants. Everyone was amazed and eager to try it at home.





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LOCAL CHAPTER BASIC REQUIREMENTS

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

OPTIONAL ACTIVITIES

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

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CHAPTER RESOURCES

Resources for chapter leaders are posted at www.westonaprice.org/chapterleaders/ including our new trifold brochure in Word format and PowerPoint presentations.

LOCAL CHAPTER LIST SERVE

Thank you to Suze Fisher of our Maine chapter for setting up a local chapter chat group. New chapter leaders can sign up at http://groups.yahoo.com/group/wapfchapterleaders/

- OR Ashland: Summer Waters (541) 326-8952, summer@summerwaters.com Central Oregon: Rebecca and Walt Wagner (541) 447-4899, justwagner@msn.com Eugene: Lisa Bianco-Davis uncommon interests@yahoo.com and Victoria Schneider, CNT (541) 343-3699, info@krautpounder.com, www.krautpounder.com Grants Pass/Medford: Carl and Monna Norgauer (541) 846-0571, cnorgauer@clab.net, Lynn Parks (541) 787-9236, lynn@notprocessed.com, www.NotProcessed.com Klamath Falls: Shannon Nash (541) 798-5600, shannonnash@centurytel.net Lake Oswego: Brenda Ruble (503) 635-1174, BrenRuble@aol.com Portland: Sita Benedict (503) 560-6123, realfoodpdx@gmail.com & Heidi McKay (503) 544-4455, heidiandlulu@gmail.com Rogue Valley (Central Point): Kelly Rogney (541) 665-0171, kellyrogney@hotmail.com PA Berks/Lebanon Counties: Kevin Kahler (717) 866-7503, sideporchcafe@gmail.com Centre County: Elmer Z. and Martha B. King, (814) 349-4890 Chester County: Annmarie Butera (610) 466-7593 ambutera@verizon.net, Dan Wright (610) 933-1776, danw59@yahoo.com Clarion: Elise W. Deitz (814) 764-5497, elise1@atlanticbb.net Gettysburg Area/Franklin County: Maureen Diaz (717) 303-3832, motherhenof9@comcast.net Harrisburg Area: John Storey (901) 335-7407, stohn.stohn@gmail.com, http://groups.google.com/group/wapf-harrisburg Lancaster County: Janna Weil (717) 291-5741, jgweil@earthlink.net Lehigh Valley (Allentown): Dr. Alan J Stangl and Dr Martin Boksenbaum (610) 434-7562 wapf-lv@wapf.org Northern Bedford County: Ella McElwee (814) 766-2273, ellamcelwee@cove.net & Kathleen Brumbaugh (814) 928-5135 Pittsburgh: Carrie Hahn (412) 531-4485, bchahn@verizon.net, www.groups.yahoo.com/pghwapf Wayne County: Mark & Suzanne Lichtenstein (570) 448-2658, marklichtenstein@yahoo.com Winfield/Tri County: Eldore Hanni (570) 524-9693, healthmr@aol.com
- SC Aiken: Kim Rodriguez, RD, (803) 644-4463, aikennutrition@bellsouth.net Saluda: Mike & Patrice Buck (864) 445-7399, butterpatchjerseys@netscape.com Sumter: Robby Elmore (803) 469-0824, robby_elmore@msn.com

GREEN PASTURES PRODUTS SPONSORSALASKA FISHING TRIP

Page/North Central, Nebraska Chapter Leader, Dave Wetzel of Green Pasture Products, with his daughter Addie (pictured right), were the hosts of Northwest Vermont Chapter Leaders Doug and Barbara Flack, (pictured lower right), winners of the Farm-to-Consumer Legal Defense Fund fundraising drawing held at Wise Traditions 2007. They caught the boat's limit of halibut—approximately 25 pounds each.





DRAWING FOR NEXT YEAR'S TRIP

Green Pasture Products has graciously donated another trip for the Fund. Win a private Alaska fishing expedition for two by participating in a drawing at Wise Traditions 2008. Proceeds benefit the Farm-to-Consumer Legal Defense Fund. The package can be customized to fit winner's interests and schedule and includes roundtrip airfare from the lower 48 states to Anchorage, Alaska; six days, five nights accommodations at a bed and breakfast; tours to Homer and Seldovia; and one full day fishing and/or sightseeing excursion on a small private boat.

- SD Aberdeen: Melanie Winkler (605) 225-9387, winkler@nrctv.com Eastern South Dakota: Dale & Susan Miskimins (605) 693-4039, mrshobo@hotmail.com Mitchell: Jon Neugebauer (605) 227-4663, joneugebauer@yahoo.com Selby: Julie & Bill Rosin (605) 649-7224, sdsavvygal@yahoo.com ΤN Brentwood: Shawn Dady (615) 336-2286, shawn@sunsetblvdstudios.com Chattanooga: http://health.groups.yahoo.com/group/WAPChattanooga/ Knoxville/Oak Ridge: Susan Emert (865) 637-1037, susanmemert@msn.com and Marty McWhirter (865) 637-4029, easttn wapf@comcast.net Memphis: Pamela Godwin (901) 685-9808 and Suzanne Waldron (901) 761-2039, wapfmemphis@yahoo.com, http://health.groups.yahoo.com/group/wapfmemphis/ Tri-cities: Marc Upton (828) 400-3883, wmupton927@hotmail.com Abilene/Eastland: Kerry & Joy Hedges (254) 725-4084, slowpokefarm@hotmail.com ТΧ Austin: Bryan Lambeth oz4caster@yahoo.com, Judith McGeary (512) 243-2706, jmcgeary@pvco.net Dallas: Dr. Ken Taylor and Lisa Troy (972) 233-2346, drtaylor5159@yahoo.com, www.traditionaltx.us Denton: Michelle Eshbaugh-Soha (940) 565-0517, ravensphere@gmail.com and Gail Wesson (940) 382-5120, roonkin@wans.net Midland: Annette Presley, RD, LD (432) 599-9355, Annette@findyourweigh.com North East Texas: Eric and Nancy Wesson (903) 450-0917, wp@goodgut.com Sequin: Gina Tillman-Young (830) 379-9700, gg4gsus@genesischristianchurch.org South East TX: Brad & Jennifer Stufflebeam (979) 251-9922, info@homesweetfarm.com
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VISIT TO GREEN PASTURES PRODUCTS HIGH VITAMIN BUTTER OIL AND FERMENTED COD LIVER OIL OPERATIONS, AUGUST 2008



Visitors to David Wetzel's Green Pastures operation in Page, Nebraska learned about state-of-the-art pasture feeding, high-vitamin butter oil production and the new fermented cod liver oil manufacturing process.

TOP ROW: Mark Drury, Christapher Cogswell, Tim Boyd, Sarah Pope, Carrie Hahn, Nancy Wesson and Eric Wesson.

LOWER ROW: Behrooz Tahririha, David Wetzel and Lisa Drury

Hardy/Franklin County: Judi Harrington (540) 427-4112, judistar@att.net Leesburg: Dr Peter Hilgartner & Dr Lolin Hilgartner (703) 777-8891, drshilgartner@gmail.com Lovettsville: See Brunswick, MD Manassas/Prince William County: Sally Holdener (703) 753-6492, sallyholdener@gmail.com & Laura Gossin, laugoss@verizon.net Purcellville: Valerie Cury Joyner (540) 338-9702, fotoner2@aol.com Reston: Kimberly Hartke (703) 860-2711, kimberly@hartkeonline.com & Sara Tung saratung@gmail.com, http://wholefood.meetup.com/102/ Rice (Farmville): Gwen & Barry Martin (434) 392-6049, stillwatersfarm@earthlink.net Richmond: Erin Greene (804) 920-8722, milk4richmond@live.com Roanoke: Eva Jo and Frank Wu (540) 989-1617, fej@virginiarolfers.com Rockingham County: Joan Hulvey (540) 896-1483, joanhulvey@yahoo.com Smith Mountain Lake: Renee Brodin (540) 297-4219, smlwapf@gmail.com Spotsylvania: Lois Smith (540) 582-7839, cvcrls@mindspring.com, Suzi Croes (540) 582-3219, suzicores@gmail.com Staunton: Vickie Liguori (540) 377-2832, midwife@hughes.net Virginia Peninsula: Paul Hubbard (757) 848-8218, pjhubbard@cox.net Bellingham: Carla Witham (360) 671-2668, ccwitham@gmail.com

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IL

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IN

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MA

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MistyBrook Farm offers certified organic raw cow's milk, beef, veal, pork, lamb, eggs, and vegetables. Raw milk available year-round from 100% grass-fed cows. Visit our traditional mixed farm! Katia Clemmer at (413) 477-8234 email mistybrookorganicfarm@ yahoo.com, located in Hardwick, MA. 10/2*

MD

Organically raised grass-fed beef, freerange eggs, pastured chicken. Pick up from Potomac, Buckeystown or Emmitsburg (beef only). No hormones, antibiotics, or animal parts are fed. Beef never fed grain. Nick's Organic Farm, Quality Organic Products since 1979, Nick Maravell, (301) 983-2167, nickmaravell@comcast.net. 9/4

MI

Creswick Farms. Dedicated to raising healthy, happy animals, lovingly cared for just as Mother Nature intended, which provide high-energy, nutritious and delicious food for health-conscious individuals. No antibiotics, steroids or GMOs ever fed to our animals! (616) 837-9226, www.CreswickFarms.com. 9/4

FARM PRODUCTS BY STATE

Organic Raw milk cheese from pastured cows. Gouda, Edam, Gouda with spices and Cheddar. \$7.50-8.50/lb plus **shipping**. Also grass-fed beef, lamb, turkey, pork, chickens, and eggs available on our farm. Steve-N-Sons Grassfields Cheese, 14238 60th Avenue, Coopersville, MI, 49404. www.grassfield-scheese.com. 9/3

MN

Farm On Wheels offers animals raised green grass-fed & certified organic. Nutrient-dense beef, lamb, chicken, eggs, turkey, goose, duck, pork, lard, butter. No corn or soy. Farmers Market year around in St. Paul, Prior Lake, Northfield, Just Food. Linda (507) 789-6679, www.cannon.net/~farmonwh. 10/1

Nutrient-rich summer-gold butter and cheese from PastureLand Cooperative. Our products are made from the milk of 100% grass-fed cows grazing certified organic pastures in southeastern Minnesota. **Shipping available.** (888) 331-9115 for more information. www.pastureland.coop. 9/4

NJ

Fresh Vital Foods from fertile soil. A natural function of soil, sun, rain, and compost and traditional, sustainable farming. Brown eggs with orange yokes from chickens on grass pasture. Seasonal vegetables and Native American fruits & nuts: Persimmon, Pawpaw, Black Walnut, Hazelnut. River Birch Micro Farm, 19 Forman Ave Monroe Township, New Jersey 08831 (732) 605-0444. 10/3

Biodynamic raw milk available through herdlease program. Also pastured chickens and fresh eggs available. Pleroma Farm, Arthur Lups, Hudson, NY (518) 828-1966. 10/3

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FARM PRODUCTS BY STATE

NJ

Certified organic grass-fed dairy. Raw milk cheeses, cottage cheese, yogurt, sour cream etc. from Jersey cows. Eggs from pastured chickens. Grassfed beef, pork, chicken, rabbit and turkey. Long Island drop. (717) 768-3437 Pleasant Pasture Organic Acres. 9/4

OH

Ber-Gust Farm – pastured, miniature Jersey dairy cows. All natural beef, pork, poultry and produce. Also jams, jellies, honey & apple-butter. Waynesfield, Ohio. (419) 230-2195, (419) 230-2194, www.ber-gustfarms net. 9/3

OR

Grass-fed beef, pastured pork, chicken and lamb. No antibiotics, hormones, synthetic nitrogen fertilizers. **We ship mixed boxes** starting at \$119 for 20 lbs. Discount for local pickup. Also raw cow's milk. Visit us at www. deckfamilyfarm.com. (541) 998-4697. 9/3

PA

Bareville Creamery 100% Grassfed offers cultured butter and farmstead cheese. **We ship to you!** Or visit our farm to pick up. Special price on Fall 2006 butter. Call for prices. Daniel Zook, Leola, (717) 656-4422. 9/4

Certified Organic Dairy. Raw milk cheese pastured chickens, turkeys, pigs, 100% grass-finished beef, beef & chicken broth. Call for more information (717) 786-8093, Green Hills Farm, John & Annie Esh, Quarryville, PA. 11/4

Certified organic grass-fed dairy. Raw milk cheeses, cottage cheese, yogurt, sour cream etc. from Jersey cows. Eggs from pastured chickens. Grass-fed beef, pork, chicken, rabbit and turkey. Call for information. **Will ship.** (717) 768-3437 Pleasant Pasture Organic Acres. 10/4

Raw Dairy Products from our grassfed Jersey cows. Eggs from our free-range pastured chickens. Beef from our own beef cows. Pork from our own pigs. Running Water Farm, Isaac & Mattie King, 1238 Clay Rd. Lititz, PA-17543, (717) 627-3177. 11/4

Pasture-raised raw milk and dairy foods. Also chicken, turkey, veal and beef. Nature's Sunlight Farm, Mark and Maryann Nolt, Newville, PA, (717) 776-3417. 9/4 Raw Dairy Products from our 100% grass-fed Jerseys. Free-range, grass-fed, chicken, turkeys. Suckling veal, whey-fed pork, lard. We do not use hormones or antibiotics. Shady Acres, Glenn Wise, 8514 Elizabethtown Rd. Elizabethtown, PA, 17022, **Shipping Available**. (717) 361-1640. 9/3

Raw milk cheese from our grass-fed Jerseys, made on our family farm with Celtic seasalt. No grain fed. Also grass-fed beef and lamb and pastured chickens, turkeys and eggs. No hormones or synthetics. On-farm sales. Wil-Ar Farm, Newville, PA (717) 776-6552. 11/2

Willow Stream Farm, grass-fed dairy products from 100% Jersey cows. Raw milk, butter, five types of cheese. Call for prices. **Will ship cheese** (minimum 10 pounds). Christian Fisher. 88 Hess Road, Quarryville, PA, 17566. 717-786-8515 ext 3. *10/2

ΤN

We are a family farm offering all-natural, delicious, grass-fed lamb, pork, beef and, chicken. We now offer Jersey heifers for family milk cows (gentle!!) Call (866) 866-3287. Ask for Justin or Liberty or email: topoftheworldfarm@wildblue.net. 9/4

VA

Manassas Milk Project has raw milk shares available. Milk is from your own pastured Jersey cow. Western View Farm, Call Martha Bender (540) 788-9663. 9/4

Salatin family's Polyface Farm has salad bar beef, pigaerator pork, pastured chickens, turkeys and eggs, and forage-based rabbits. Near Staunton. **Some delivery available.** Call (540) 885-3590 or (540) 887-8194. 9/3

WI

100% Grass-fed Organic Black Angus beef, Pastured pork and chicken. Beef and pork fat (tallow & leaf lard), organ meats and chicken feet. MSG & Nitrate-free all-beef hotdogs, deli roast beef, kielbasa and naturally cured hams and bacon. Also, traditional cooking instruction. Anderson Farm is located 45 min. SW of Eau Claire WI. (888) 700-FARM (3276), andersonfarm@nelson-tel.net, www.andersonfarm.us. 9/3 Certified, Organic, soy-free dairy, raw milk cheese, cultured butter, cream, yogurt, cottage cheese, colostrum. Also full line of grass-fed beef, pastured chicken, turkey and free-range eggs. Raw honey, maple syrup, and extra virgin organic coconut oil also available. **Will Ship.** Grazin Acres LLC (608) 727-2632 located 1 hr NW of Madison. 9/3

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BUTTER. Amazing Grazed Real Butter! Step back in time to the way butter was meant to be! Rich, creamy butter and heavy cream from our pasture-based certified organic dairy, butter \$12/#, 40 pounds or more \$10/#. Also, organic grass-fed lard, beef, lamb and pork. Shipping available. Green Hills Harvest (660) 244-5858. 9/4

COCONUT OIL. Nature's Blessing - USDA certified organic. Discovered on my recent trip to the Philippines, this oil is wonderful! Coconuts are grown and processed on site within 8 hours, cold-pressed. The oil is clear with a wonderful mild flavor. Carrie Hahn, WAPF chapter leader (412) 531-4485. 9/3

EGGS, grass-fed from our free-range hens. Nutrient-rich eggs are our business, not a sideline. Hens have access to fresh grass, sunshine and exercise. No hormones or antibiotics. Will ship. Silver Leaf Acres, Fax or call 715-257-1397. 9/3

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GARLIC. Organic & Chemical Free as Nature intended. Whole cloves or dehydrated powder/chips. Erker Organic Farms, Burlington, CO. (719) 346-5026. *9/3

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DVD of JOEL SALATIN. "Heal the Planet by Healing Your Plate," presented at the Florida launch of the Farm-to-Consumer Legal Defense Fund August 2007. About 2.5 hours. \$20 donation to local WAPF chapter, includes shipping to US. Email WAPFSarasota@gmail. com. *9/3

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Nutritious Foods, Natural Soaps, Sea Salts, Ceremonial Herbs, and More! Enjoy Nourishing, Healing, Earth-Honoring Products to Vitalize Your Well-Being. www. LifeEnergyStore.com 10/2

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PACKAGING. Azure Packaging, custom bottling, packaging & encapsulating small runs no problem- full lab analysis available call Jason Mobil. (402) 336-7130, fax (402) 338-5555. 9/2 WATER PURIFICATION. Health-enhancing water from your tap, certified by NSF, Dr. Masaru Emoto tested, generate income as independent marketing consultant for established international company offering water filtration/purification/energization units and more, www.intelligentwater.net. (800) 679 7042 ext 7321. 9/3

FARMING/WAPF LIFESTYLE

ARTICLES NEEDED. NATIONAL DIRECTORY of organic food sources and other natural Health Products needs articles, new releases, recipes, and information about your products and services for further issues. Advertising available. Sample \$3. Buffalo Creek Publications, PO Box 397, Buffalo Lake, MN 55314. *9/3

COMMUNITY HOUSING. Creating first of 12 holistic assisted living homes for elderly in Aurora, Colorado. Am looking for chef/nutritionist/teacher to implement healthy cooking and eating, following the teaching of Sally Fallon & Victoria Boutenko. Also looking for investors, grants, funding help. Contact Alan at (303) 823-0291 or abolo10@earthlink. net. 9/4

COWS WANTED: Several grass-fed milk cows or heifers, within 300 miles of Harrison, Arkansas. Pastured poultry for sale. Fresh or frozen, no hormones or antibiotics. North Central Arkansas (870) 427-3039 littlegiantproductions@yahoo.com. 9/4

SAWSOMME (SAW-SOM-ME) represents Sunshine - Air - Water - Soil - Ocean - Minerals - Microbes - Energies. Properly balances life's precious benefits. All are needed in agriculture to start, nurture and sustain life's requirements. SASE. Ed Heine, 14N446 Hwy 20, Hampshire, IL 60140. (847) 464-5987.

*10/1

TENNESSEE BED & BREAKFAST. Spend your next vacation on a working farm, LaBelle Acres in Jamestown, TN. Guests are welcome to fish in the ponds, fight chickens for eggs, or just sit on the porch rocker. Breakfast foods are supplied, guests are welcome to prepare them when they desire. For more information, call (931) 863-5594 or labelleacres@ yahoo.com or http://www.bedandbreakfast. com/tennessee-jamestown-labelle-acres. html. 10/1

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FARMING/WAPF LIFESTYLE

VERMONT FARM seeks 2008 apprentices. We integrate American Milking Devon cattle, pigs and chickens with growing and fermenting six tons of vegetables. Our grain-free cows support raw milk sales plus butter and cheese making. We focus on selling nutrient-dense foods while eating well ourselves! Learning opportunities include milking, biodynamics, natural livestock care. Positions available April to November, short and long term. Cabins, food, laundry, Internet access and lots of education. Call Doug Flack, (802) 933-7752, Flack Family Farm, www.flackfamilyfarm.com. 10/4

ZIMBABWEAN Farmer seeks to become involved in Biological/Organic Farming, either as a farmer or in the support sector or in research. I will be happy to send my C.V.(Resume) to the appropriate person. Please contact David Hartley by e-mail: chacmachacma@yahoo.com. *10/2

FUNDING NEEDED

FARMSTEAD FRESH Inc. is soliciting investors to help with business expansion. The business is known for training sustainable dairy farmers in making gourmet quality "One Step Above Organic" grass-fed raw milk cheese and marketing it. www.farmsteadfresh.com. 9/3

INVESTORS NEEDED. Next Level Productions is seeking investors to complete its documentary film "Body Armor." The film follows the journey of individuals with chronic illnesses as they explore natural medicine and alternative therapies. Contact Gabe Golden. (310) 779-2816, Gabegolden310@yahoo.com. *9/4

HEALING ARTS

ANCIENT TRADITIONAL HEALING WAYS. Awaken vibrant health and well-being in body, mind and spirit with extraordinary ancient teachings and effective self-empowering tools. Holistic counseling, energy healings, retreats. Discount for WAPF members. JoAnne Dodgson EdD, www.pathwaysforhealing.net, (888) 846-6412, joanne@ pathwaysforhealing.net. 10/2

FEMALE reproductive health and empowered mothering through herbs, oils, essences, and whole foods, with emphasis on a TRADI-TIONAL DIET. Fertility, pregnancy, PMS and menopause. Private consultations, private and group cooking lessons available. Maryland, DC, NoVA. Monica Corrado, (240) 988-9312, simplybeingwell@aol.com. 9/4

FOOD AS MEDICINE Workshop. Sharon A. Kane, Instructor. Get the most out of your food! Ongoing classes teach gentle detoxification protocols and hands-on instruction in the making of kombucha, kefir, gluten-free bread and lacto-fermented pickles.Call Sharon A. Kane, (508) 881-5678, email Gpath2003@ yahoo.com or visit: www.sanctuary-healing. com. 9/4

HOMEOPATHIC Care for Babies and Children. Join the Kairos Network Homeopathic Study Group. Member of WAPF, NCH, HEAR, and the Catskill Medicine Wheel. Low cost, effective, very useful for self care and home prescribing. Tutoring by mail for Study Group members only. Beginners welcome. Make this part of your prepared parenting program. Send SASE to: Liz Potter, 321 Wahl Road, Livingston Manor, NY 12758. 10/1





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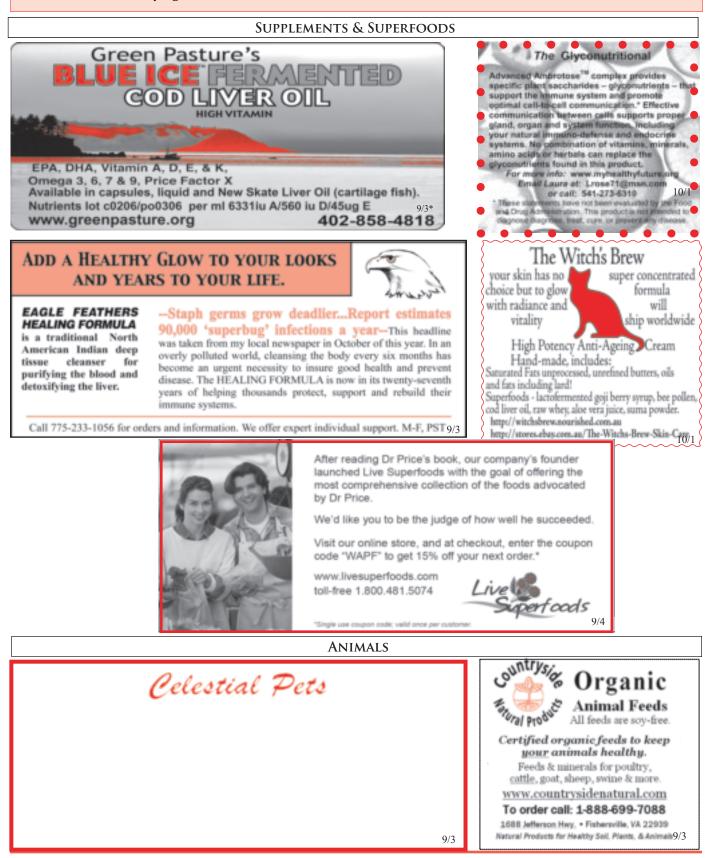






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Narrated by Chef Mitterhauser, Calinary Olympics Gold Modalist this documentary in a kaleidoscope of information also introducing the Westen A. Price Foundatio who informs the public about meths and traths regarding nutrition today. You watch colorful and dazzling appetizer entroe and dessert presentations wrapped around the 10 BASEC COOKING TECHNOQUES prepared with organic whole food ingrodients from the chefs 000 buttle-hardened recipes. This chef aka Professor Culinarias links scientific sources from the WAPF to point out the vital importance how to cosk with whole food ingrodients instead of consuming processed products. With humorous gags and music the viewer is enter with fascinating videography from a wealth of gastronomy designed for anyone or a family interested in a life style that includes cooking as a regular cultural activity, hobby or profe It heats any scop opera because you can lears to cat healthy and have fan in the process. As a story teller Professor Calina leads the viewer into a culinary odyney around the world with his excupades and buffet art.

69 min DVD including:

- 1. Introducing Chef Mitterhaus
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- Corned Boof and Cabbog
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- Gravian-Home Cared Salmos
- 10 Viennese Apple Strudel
- 11 Marzipan Prince 12 Two Caok Books

www.professorculinarius.com

email to: mitterhauser@izoom.net+0/2



Nauriat Niginaqtuat, Plants That We Eat, an ethno-botanical manual, long out of print but due to be re-printed in the fall of 2009 by University of Alaska Press. It is 150 pages with black and white photos and sketches.

The second manual, Igaluich Niginagtuat, Fish That We Eat, provides information regarding the traditional use of fish, their processing, recipes and eating enjoyment. It was compiled from the local traditional fish knowledge of northwest Alaska and was partially funded and placed on the web by the U.S. Fish and Wildlife Service.

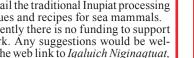
The third manual in this series will similarly detail the traditional Inupiat processing techniques and recipes for sea mammals.

Presently there is no funding to support this work. Any suggestions would be welcome. The web link to Iqaluich Niginaqtuat, Fish That We Eat, is below. The report is located under the U.S.F.W. Northwest AK section. From here you can read it and/or download and print it. It should be printed double-sided due to the length (341 pages), including 100+color photos, sketches.

> http://alaska.fws.gov/asm/ fisreportdetail.cfm?fisrep=21 *10/2



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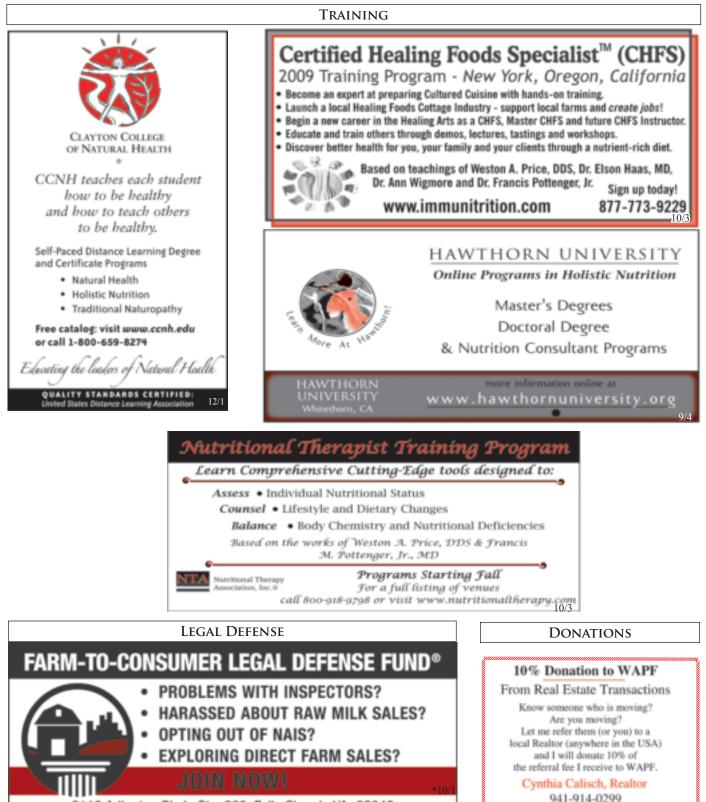
by Dr. Natasha Campbell-McBride

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Vpcoming Events

2008

- **Sep 13 Ann Arbor, MI:** The Deidre Currie Festival, a celebration of Food, Farming, Community and One Beautiful Person, featuring Dr. Natasha Campbell-McBride, Jerry Brunneti, Karen Lubbers and Sally Fallon. **Contact:** Archie Welch (248) 620-8969, www.deidrecurriefestival.org.
- Oct 1 Baltimore, MD: Nourishing Traditional Diets, the Key to Vibrant Health, by Sally Fallon at the Waldorf School of Baltimore, 4801 Tamarind Road, 7:00 PM, \$5 per person. Contact: Alejandra Lorenzo-Chang (410) 367-0647.
- Oct 25 Great Barrington, MA: Twenty-Eighth Annual E. F. Schumacher Lectures featuring Anna Lappé, Dan Barber and Sally Fallon. Contact: (413) 528-1737, efssociety@smallisbeautiful.org.
- Jan 9-11 Richmond, VA: The Oiling of American and Seminar on Traditional Diets by Sally Fallon. Contact: (804) 314-9141, admin@centerforruralculture.org.

Jan 30 -

- **Feb 1** Westford, MA: Westford Regency Inn and Conference Center. Fourfold Path to Healing Conference featuring Tom Cowan, MD, Jaimen McMillan and Sally Fallon. Contact: (240) 379-7072. www.fourfoldhealing.com.
- Feb 27 -
- Mar 1 Chapel Hill, NC: Real Food Real Medicine conference featuring Joel Salatin and Sally Fallon. Contact: (919) 932-6262 ext 10, drdelaneynd@aol.com, www.realfoodrealmedicine.com
- Mar 20-22 Portland, OR: Second Annual NTP Conference-Thinking About Food: Nutrition and Mental Health, sponsored by Nutritional Therapy ASsociation, Inc., featuring Sally Fallon, Seminar on Traditional Diets and The Oiling of America. Contact: (800) 918-9798, www.nutritionaltherapy. com/SeminarsandEvents.htm.

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