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President's Message

In this issue we offer our members three articles based on presentations given at Wise Traditions 2008, our ninth annual conference. The conference explored the connection of nutrition with mental and emotional health; and the many fine speakers on this subject validated the intimate connection between the body and the mind, between physical health and mental outlook.

The three representative articles we present in this issue offer three distinct but complementary points of view on the influence of nutrition on our emotions and mental well-being. Chris Masterjohn presents the latest scientific discoveries on the contribution of the fat-soluble activators, vitamins A and D, to the function of "feel-good" chemicals in the brain, and even to our ability to plan for the future and carry out long-range tasks.

From his viewpoint as an anthroposophical physician inspired by the writings of Rudolf Steiner, Tom Cowan discusses the question of what is disease? what is a proper diagnosis? what is an autoimmune disease? and what is the connection of our interior body chemistry to the plants that grow in the world outside ourselves. He also presents information about the great potential for low-dose naltrexone therapy in the treatment of addiction and immune dysfunction.

Theresa Vernon explores the relationship between nutrition, heavy metals and disease, including mental disorders. Her work underscores the importance of healthy adrenal function as the basis for ongoing protection against heavy metals, and also highlights the dangers of vegetarian diets, which lead to mineral imbalances. Her treatment plan includes a nutrient-dense diet, cod liver oil, hair mineral analysis, gentle detoxification measures and Chinese herbs.

Recent new alerts tell us that one young adult in five suffers from a personality disorder serious enough to affect normal life activities and that one adult in two will suffer from a mental or emotional disorder some time during life. Indeed, almost the entire civilized world is addicted to either drugs or stimulants (including refined and artificial sweeteners). This is not what Dr. Price found in his studies of nonindustrialized peoples consuming nutrient-dense foods. Modern treatment plans for these conditions generally ignore the role of nutrition for the proper function of our neuro-hormones, neuro-transmitters and other important neuro-chemicals; but the combination of recent scientific discoveries and the wisdom and experience of holistic practitioners in this field reveals nutrition to be the only firm basis on which to build lasting healing for so-called psychological illness. In the midst of campaigns for increasing pharmaceutical treatments for mental and emotional disorders in both young and old, we should always keep in mind the still, small voice of Dr. Price: Life in *all* its fullness is Mother Nature obeyed.



I grew up in the Netherlands. For 25 years there, I consumed raw milk. My family would take a bucket full of milk and put it in the cellar because we didn't have refrigeration, and they would skim it. Whenever the cream turned sour, I always got the sour cream. . . because I was the runt of the litter, and it was good for me. When I came to this country in 1950, I was employed in the dairy industry, and I still drank raw milk—I never took to the pasteurized and homogenized milk that you have here.

When my wife and I adopted our daughter, we were told that she was lactose intolerant. Well, we solved that problem with raw milk. I got it from my own cows because by that time I had my own dairy. My cows greatly outperformed those of my neighbors, and I credit that success to pasturing my herd once a day. After five years I moved to a dry-lot operation, which brought on leptospirosis [a bacterial disease of animals and humans] in my herd. At that point I stopped drinking my own product and I told my raw milk customers I didn't feel right about it... so I stopped giving it to them. I went to considerable expense to solve the disease problem. After overcoming the illness in my cows, I was financially exhausted and sold the herd.

It wasn't until three or four years ago, after moving to Bakersfield, that I started drinking raw milk again. I've been a steady customer of Organic Pastures ever since. I recently recovered from hospitalization during which I didn't get any raw milk. They offered me

non-fat milk which I refused to consume. At one point after the hospitalization I told my wife, "I'm losing ground." I felt like I was going down. Then I resumed consuming raw milk at the rate of one and one-half gallons per week. That's not quite a quart a day. Since then I've been told that I look really healthy. I divorced my wheelchair and I'm now trying to orphan my cane.

I'm nearly 84 years old, and I'm doing my part in fighting the government to keep them from interfering with my raw milk. To paraphrase John McCain, "I'll go to the gates of hell to defend raw milk."

Ed De Boer Bakersfield, California

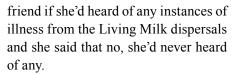
FROM RUSSIA WITH LIVING MILK

Yesterday we received a book of photos by an old friend who is the head of urban planning in St. Petersburg. Volodya is also a talented amateur photographer who's exhibited his work around the world. This latest collection of photos from St. Petersburg included one of a small cistern on wheels, cheerfully painted like a cow with the words "Living Milk" on its side.

We wondered

what this was and called a friend in the city to find out. She told us that these are small cisterns of raw milk from nearby farms (she had no details about them) that regularly appear in the courtyards of apartment houses. They look a lot like a kvass cistern—except for the decorations, of course! Residents come out with pitchers and other containers and receive milk from the spigot. Our friend said the same milk is available bottled in the shops, but the cistern milk is cheaper and tends to go sour faster. It is not refrigerated; a truck brings it into the courtyard, detaches the cistern and an attendant with an apron services the patrons. They sell out quickly and a truck comes to retrieve the empty cistern. The attendant dutifully recommends that you boil the milk. This arrangement is very common, apparently. We asked our





Can you possibly imagine such a setup in this country?? We do need to revisit our ideas of what is dangerous!

Katherine Czapp Ann Arbor, Michigan

THE BIRDS KNOW

Thank you for your unwavering message: our bodies need nutrient-dense food. I avoided healthy fats for many years, only to find myself easily fatigued.

Here is a story from Ranger Rick magazine, printed in the 1980s, about a girl who was new to Great Britain. Upon having milk delivered to the house, something tore off the foil milk caps and left dirt in the milk. What was it?

"The milk-snitching birds . . . were tits. These birds don't live in North America. But they are relatives of our chickadees and titmice.

"How did these birds learn to snitch milk from bottles? People first noticed some birds taking milk about 70 years ago. At that time, milk bottles in England had waxy cardboard caps, and the birds liked to nibble on the wax. A few birds may have pecked so hard at the wax that their beaks went right through the cardboard tops. Then they discovered that the strange white stuff under the caps tasted good. Soon birds all over the country learned to do it, too.

"The milk bottles in England have different colored foil caps now. There's one color for creamy milk, which the birds like, and another color for skim milk. The birds have learned to be choosy. They open the caps of the creamy milk and leave the skim milk alone!"

Nature truly does teach best!

Don Von Deinzon

DENTAL HEALTH IN BULGARIA

Greetings from Bulgaria! Dental health in children is my big concern. For 45 years we were isolated from the world, behind the Iron Curtain, so we were kept away from the western diet. Dental checkups were mandatory and tooth decay was uncommon. But after the fall of communism, when fast and junk food quickly gained popularity, the results have been disastrous. Today 70 percent of our children have tooth decay, and every second teenager has had at least one tooth extracted. The government officially approved fluoridation of the water and food in kindergartens, which will make things even worse, as vou know.

Last year I discovered *Nutrition* and *Physical Degeneration* by Dr. Price and read it all. Needless to say I got the answer to all my questions concerning dental health and degeneration. Now, the question is how to bring this knowledge to the people of Bulgaria? Weston Price is virtually unknown here; no one wants to pay for the translation of his book. I translated a small presentation video on Google but that's far from enough. Please, advise me on what to do now.

Ludmil Egov Veliko Tarnovo, Bulgaria

PRINCIPLES ARE THE DIFFERENCE

From studying Parelli natural horsemanship, I have learned the value of principles. Principles don't make a difference, they are the difference.

The Weston A. Price Foundation provides us with dietary principles. When reading the book *Sugar Blues*, I was frustrated by the statements "sugar is the cheapest source of calories" and "calories are energy." Such statements might lead one to think that sugar is good and acceptable. I knew this was wrong and I know that you are right in your insistence on nutrient-dense foods, but I couldn't figure out the "how"!

Then it occurred to me. The premise that sugar is calories and therefore fuel sounds good. However, it's a takeoff from the Age of Mechanization. Vehicles need fuel to perform, but they don't regenerate. Living beings regenerate! You must have nutrient-dense foods to regenerate—including procreation and recovery from illness. We are not mechanical things, we are living beings. In order to live and regenerate, we must have more than mere calories. We must have real food!

Candis Veach Leorr, Iowa

USEFUL INFORMATION

I have been a fan of *Nourishing Traditions* and the Weston A. Price Foundation for a number of years now. All of your wonderful advice has changed the lives of my family. We are all so much healthier!

All of your issues of *Wise Traditions* are rich with information but the last two

were especially outstanding. Thank you for the article about cookware. You gave me many new reasons to enjoy using my cast-iron Lodge cookware as well as my enameled cast-iron cookware.

Next, the articles in your most recent issue about cooking nourishing traditional foods on a budget and cooking for children in school were some of your best. Both articles are so chockfull of useful information. I have been working so hard over the last few months to buy the best food that I can find-organic and local-and I was amazed at how much money I was able to save by buying as much as I can from local farms. With meal planning and menu creations, and some advanced preparation, my family is able to eat real food prepared in a traditional, healthgiving manner. Dr. Sergeant's article has armed me with additional information to help me

even more with feeding my family on a budget.

Finally, the article on a healthy school lunch program was so timely for me. I recently enrolled my son in a two-day home school co-op that presently has no lunch program in place. After some observations of what the children were bringing for lunch, all I could think about was the manual that Ms. Rivers described in her article about Sequoia Academy.

I am on a mission now to teach, teach, teach. I am responsible for bringing the mid-morning snack for the children and am going to start bringing

healthy traditional snacks. I am going to start compiling the recipes, tips, etc., in a notebook, and then have it made up into a cookbook, which will make



a wonderful fundraising opportunity for our co-op. I hope the snacks and the cookbook will encourage more nourishing lunches brought from home. My son is a wonderful ambassador, proud to bring out his raw milk, crispy nuts and sourdough meat-filled sandwiches at lunch time. With his impressive height, trim yet strong physique, "milk-fed" rosy cheeks and pleasant demeanor, I can see some of the other parents taking notice!

I wanted to share with you a photo of my parents Gloria and Jim, married for fifty years. Mom is 83 and Dad is 78. My mother never succumbed to the lowfat movement. She has always eaten a diet rich in whole milk, yogurt, butter, cream, cheese and meat with the fat on. She is in great health, takes no medica-

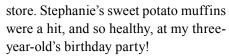
> tion, still cooks and cleans, gardens, and walks everywhere. Her skin is amazing. My Dad is also in great health, a great cook and gardener! They both take cod liver oil every day. Both of them are mentally sharp and have their original teeth.

> I have one other thing to share with you. One of my girlfriends was plagued with miscarriages—about seven over the course of the last twenty years. Then she started eating a nourishing traditional diet a few years back, including raw dairy, organ meats (she loves head cheese!) and fermented beverages. And now she is pregnant, at 43. She is looking forward to delivering a healthy and happy baby boy in January! Thank you once again.

Mary Shrader Austin, Texas

SCHOOL LUNCH COOKBOOK NEEDED!

Thank you for your article, "Cooking for Sequoia Academy" (Fall, 2008). We need author Stephanie Rivers to write a cookbook! It's very challenging, at times, to come up with WAPF-type recipes when there are multiple food sensitivities involved. For example, my daughter and some of her friends are on gluten-free diets. I make gluten-free muffins, but I have been unfortunately using those rice-based mixes from the



I need to learn healthier, alternative recipes like that as I struggle with the alternative grains and food preparation for kids. I'd like to see recipes like this in every journal.

The traditional foods are easy, but not if you have to avoid things like dairy, eggs, gluten grains and nuts. And my daughter reacts immediately to coconut! Believe it or not, I know two other kids who do as well. I just want to thank you for the work you all do.

Lisa Olauson Long Beach, California

MANY STYLES OF MEAL PLANNING

I just wanted to add my two cents regarding the recent articles on money and meal planning published in the last issue (Fall, 2008). I wanted to present another side of the story for all those mothers who are struggling with tightened spending while cooking healthy meals.

I must admit I'm a maverick mom and budgeting and meal planning are dirty words in my house. Yes, I do follow WAPF principles to the best of my ability. My children still eat junk but there is only so much you can hold back from them when all their friends are eating that way. Once upon a time I tried to apply all the proper principles of a budget-conscious mother and at the end of the day it didn't work. For example, when I'm shopping for healthy food and I'm competing with the junk processed food, I spend the money so my kids will

not feel deprived that they are not getting the newest space-age techno-food. I want them to feel good about what they are eating.

If you come from a home where the parents have the final word and children do as they are told, including finishing every last morsel on their plate, please ignore my comments. Since I abhor physically manipulating food into my children's mouths, I opt for the look and taste appeal of naturally satisfying food. So when the organic pasture-raised foods cost double and triple I don't bat an eyelash, I put them in my shopping cart. I have even stopped looking at the prices. So much for budget! However, since I do avoid processed food, I usually spend less, although not always.

As for meal planning, once upon a time I would diligently plan a weekly menu, but no more! How do you plan when life's twists and turns are so unpredictable? For example, I cook double and my kids gobble up everything. Who's to stop a hungry child from eating good food or thwart a mother's delight in watching? Then, I cook for one meal and it lasts a week. I don't want to waste my expensive food so now I have to camouflage it in other foods before it rots in the never-never land of my refrigerator.

I cook a sumptuous dinner and everybody rejects it for toast with cheese. One week the kids finish every drop and the next week no one wants it.

One week a certain child has special nutritional requirements so I make a different menu for him. One week I'm too pregnant and nauseated to look at anything, so the kids fend for themselves. I plan a meal in the morning, but since I'm out all day in an adventurous search for organic food, I come home too tired to cook what I planned, so I opt for Plan B (whatever that may be).

One week there is an unplanned bargain when I go shopping so I stock up for the next few months. Now I actually have to use up all that I bought. I hope you get the picture!

I have my few set guidelines that have helped me, which is why I would like to share them with you. During a busy work week, I try to prepare meals that take about one-half hour prep time and about one and one-half hours' cooking time. I consider a meal successful when more than a majority of family members consumes at least four spoonfuls. I am happy when about 85 percent of the meal is prepared according to WAPF principles. So sometimes my grains are soaked properly and sometimes they are just baptized (toiveled, if you are Jewish). On a bad week I'm happy if I cooked a decent meal 50 percent of the time. I have no qualms about serving breakfast food for dinner or vice versa. Pancakes are one example.

I'm also not concerned if a child is on a monodiet. Isn't that what Dr. Price learned from native cultures? I'm a sneaky cook so I try to prepare food that looks like the neighbor's but with my ingredients. Millet in our house is called couscous. Our brown rice is disguised with turmeric and called "yellow rice." Some vegetables are processed into a smooth paste so that they are indiscernible in the meat sauce. (However, it didn't help for the one child with X-ray vision.) Liver is mixed with the ground meat. Dense, sourdough bread is fried

in butter—we call it fried bread. Maple syrup is lavishly poured on the buck-wheat! Smoothies are a smorgasbord of hidden secrets.

Sometimes I throw everything into one pot because the dishwasher (me) is out of commission. I have learned to speed cook. I can slice and dice with the best of them. I have learned to go with the flow and can change my dinner plans in seconds. The frozen meal I tried to defrost is still a solid rock. Scrambled eggs with fried bread and salad are great and speedy. Radical maybe, survival definitely.

The challenge of feeding my family WAPF-style is, at the end of the day, a very rewarding and fulfilling endeavor. When (on those rare nights) everybody is actually eating what I made I'm beaming from ear to ear. I wish everybody much success in feeding the next generation. May you grow from all the challenges and difficulties.

Milka Feldman, Maverick Mom Ramat Bet Shemesh, Israel

Thank you for sharing your wonderful cooking style—it's a gentle reminder to the rest of us not to take our meal planning and food providing too seriously!

HUGE CHANGE IN FAMILY HEALTH

Thank you for all your information! It has made a huge change in my family's health. The asthma my three-year-old daughter and I have suffered has completely gone away in less than ten months by just cooking the WAPF way.

My son weighed only 32 pounds at the age of six, but has now put on seven pounds and grown four inches. He can now play sports with kids his own age. By the way, the main reason I started looking to change my diet was from a back injury in 2003. I herniated a lower disk and was told that I would live with pain for the rest of my life, and that I should forget about riding my mountain bike, hiking and snowboarding—all the things that I loved doing. After about a month on a WAPF diet (and some secrets from my grandmother, too), my pain began to leave me. I now am totally pain free and have no problem riding fifteen miles or hiking several trails in the same day.

It really is amazing that a year ago the doctors were telling me that I would have to take multiple medications for my back pain.

Jeff Smith Frederick, Maryland

NO MORE PCOS

Thank you for all your information on nutrient-dense diets! I suffered from polycystic ovarian syndrome (PCOS) and irregular periods, and as soon as I started implementing your nutritional recommendations into my diet, I noticed a change. I am now almost five months pregnant, and conception was made a lot easier because of my improved health!

Donielle Baker Grand Rapids, Michigan

FEELING WHOLE

My wife and I learned about your dietary information a couple of years

ago, and have slowly changed our diet. As a result, we feel so much more "whole." We've seen benefits like weight loss and more energy, but most important, the feeling of being "whole" has been wonderful. Thank you very much for your work!

Saiful Haque and Laila Hernandez Hamilton, New Jersey

MY SOY STORY

I just found out about your website and information on soy and have been sending emails to people ever since to let them know: Soy is not a health food, it's not just an allergen, it's poison!

All three of my children were fed soy baby formula for the entire first year of their lives. As an adult, my son tends to be on the hyper side and is bored very easily. His hands have always had a slight shake to them.

My daughter was diagnosed with ADD at age 12 and was put on Ritalin, which created a nightmare chain of events leading to drug and alcohol abuse and psychiatric hospitalization.

My youngest daughter has learning disabilities, and she has had focus and impulse problems since she was small. Anything that requires grasping concepts is a challenge for her. She has had a history of difficulty in her personal relationships with peers as well. She is a bright, beautiful child and this is breaking my heart.

All my children are bright and beautiful and it makes me horribly sad to think they have been poisoned by me, when I thought I was doing something good for them. It was considered the

healthier way to formula feed. I was working full-time and breastfeeding just wasn't going to be convenient or comfortable—if I only had the chance to make that choice again.

I am still in a state of shock and disbelief, and still discovering the widespread ways in which this poison has affected my own body, not to mention

the broad effect it's had on my children. I am trying to figure out a treatment plan to regain our health.

> Lynn Roberts Lemoore, California

See the article "Recovery from Soy," by Dr. Kaayla Daniel, in the Spring 2007 issue of Wise Traditions. Cod liver oil, raw milk, organ meats, butter and bone broths are essential components of any soy recovery program. Dr. Daniel also offers a new CD, "Recovery from Soy." For further information,

contact her at kaayla@drkaayladaniel. com.

DEEP PROPAGANDA

I thought of all my WAPF friends while in the deep South, attending a blues festival. A billboard advertising pork fat was in a grocery store parking lot. What struck me was the fact that one would never see a sign like this in the suburbs where I live, in the San Francisco Bay area.

I learned about the Weston A. Price Foundation and traditional diets several years ago. Perhaps some people can throw off the lowfat dogma in 24 hours, but it took me a long time. Only recently have I realized the genuine propaganda effect of it all and how deep it goes. I remember that it took two months after I heard about WAPF to cancel my "advanced seminar" with the vegetarian diet promoter John McDougall. I may glance back now and again, as someone who believes in knowing what is going



on and being said in that realm, but I am no longer tempted to attend any "lowfat" seminar, buy a book or see a speaker.

It has taken me several years to begin to see the depth and breadth of the lowfat credo. The devastation of it all as we slide into higher rates of diabetes and the despair of obesity! Thank you for working so diligently. I'm surrounded by those who have gone before me and who keep me from sliding backwards.

Karen Ferguson Sunnyside, California

MME FOR CHRONIC LOW BACK PAIN

As the Foundation has reported on our magnet therapy for stroke victims (Spring, 2001, www.westonaprice.org/moderndiseases/magnet.html), I'd like to report to your readers the latest news from Advanced Magnetic Research Institute.

Our primary research involves the Magnetic Molecular Energizer (MME). For those of you who are unfamiliar with the MME, it resembles an open MRI machine but is used for magnetic therapy only and does not generate any images. We are currently near completion of our randomized, blinded, sham controlled trial using the MME for treatment of chronic low back pain. The results are looking great and offer strong scientific support for the effectiveness of the MME treatment for this condition.

The MME is currently considered an experimental device by the FDA. We plan to submit the data from this trial to the FDA for approval of MME as an approved medical device. We want this therapy to be made available to the many people who suffer from this debilitating condition.

We plan to have 100 participants with chronic low back pain in the trial. So far we have enrolled 77 participants

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

with low back pain resulting from many different diagnoses, including bulging discs, herniated discs and arthritis. Some have had previous surgery. Many had pains radiating into their legs. The average duration of low back pain for the trial participants was 14 years and the average pain score was 5.3 on a zero-to-ten scale. These were people with significant, long-term back pain.

Of the 77 participants, 43 received Active MME and 34 received the sham or inactive MME. The sham MME magnets were turned off. The treatment consisted of 140 hours of MME administered over 12 – 15 days. That is a lot of time to spend lying on a MME treatment bed, but the people who signed up for the trial were faithful in showing up for their treatment. Very few dropped out. They were willing to spend the time to get rid of the pain!

To be fair to the participants who were placed in the Sham MME group, they were offered the active MME treatment once they were finished with the follow-up of their part in the trial.

Within 5 days of starting MME treatment, the participants in the Active MME group began to report less pain than those in the Sham MME group. At the end of 140 hours of MME treatment

the Active MME group reported an average drop in pain score of 3.2 points, while the Sham MME group reported a drop of only 0.9 points.

Six months after the MME hours were completed, the Active MME group still reported an average improvement in pain score of 2.8 points. The Sham MME group's pain score was improved by only 0.5 points. These figures are averages for each group. Some Sham MME participants exhibited a placebo response but further analysis showed that being in the Active MME group meant that you were twice as likely to get an improvement of two points or greater compared to being in the Sham MME group.

Wayne Bonlie, MD, Research Director Advanced Magnetic Research Institute, International Calgary, Canada

The combination of energy healing methods such as MME with a nourishing traditional diet should be the remedy of choice for all those suffering from pain. The diet should include cod liver oil, bone broths, grass-fed animal foods and no processed foods containing MSG.

NAIS AND HUMAN RIGHTS

I believe the proposed National Animal Identification System (NAIS) is one of the most significant issues to come along in a while, as the NAIS appears to be a fundamental infringement of human rights.

It's one thing if a majority of Americans wants to run ever deeper into the technological jungle of mass communications, of unsurpassed production of herbicides, pesticides and industrial chemicals, of an ever more pervasive petroleum industry, of agribusiness with feedlots of 10,000 cattle. But a step like the NAIS begins to seriously impose the will of the majority on the small number of people in America who still want to live plain, simple, healthy lives. It's as though three-quarters of the citizens in America took up smoking, but not being content with that, they want to require by law that the remaining one quarter also become smokers.

At the founding of this country, John Adams was concerned that in time a serious problem would develop, which he called "the tyranny of the majority." He was a perceptive man.

> David Ellis Portsmouth, Rhode Island

POSTER PRESENTATIONS AT WISE TRADITIONS 2009

It's not too soon to start thinking about *Wise Traditions 2009*, now that we are catching our breath after our wonderfully successful conference, *Wise Traditions 2008*. We had one poster presentation this year, a report on the effectiveness of fermented cod liver oil for raising vitamin D levels, by Rosann Volmert, DO, of Pasadena California. (Details on these findings will be discussed in our Spring, 2009 issue.)

Poster presentation provide the scientific caché we need to bring us into the mainstream and ensure that practitioners take notice of our work. We especially encourage practitioners to prepare poster presentations that report on resullts obtainsed using WAPF dietary principles. So to our member practitioners, please start planning now! We'd love to have dozens of poster presentations at our next conference, November 12-15 in Schaumburg, Illinois.

Sally Fallon and Mary Enig take on the Diet Dictocrats

NEW STATIN STUDY: TOO GOOD TO BE TRUE?

"A highly anticipated study has produced powerful evidence that a simple blood test can spot seemingly healthy people who are at increased risk for a heart attack or stroke and that giving them a widely used drug offers potent protection against the nation's leading killers." So begins a Washington Post article (November 10, 2008) on the recently published JUPITER study, whose lead author, Paul M. Ridker, claims provides evidence for taking the statin Crestor to lower a substance called C-reactive protein (CRP), considered a marker for inflammation. "Compared with those getting the placebo, those taking Crestor were 54 percent less likely to have a heart attack, 48 percent less likely to have a stroke, 46 percent less likely to need angioplasty or bypass surgery to open a clogged artery, 44 percent less likely to suffer any of those events and 20 percent less likely to die from any cause." If this sounds too good to be true, you are right. Before you rush to your doctor to have your CRP levels tested and jump on the statin bandwagon, read Sandy Szware's excellent analysis of the study and its accompanying hype at junkfoodscience.blogspot. com. Key points: the actual differences in outcome were in fact very small, with the difference in mortality between the statin and control groups after nearly two years only 0.25 percent; researchers stopped the trial early, just as the projected overall mortality of the statin group was about to surpass that of the placebo group; the selection process for trial participants was so rigorous that it screened out eight of ten seniors recruited, for conditions ranging from inflammatory disease to "unstated reasons." Even though participants were screened to exclude those with potential "compliance" problems, nearly 15 percent of participants had stopped taking their pills after one year; and there was a 25 percent higher number of newly diagnosed cases of diabetes among the statin group compared to the placebo (270 cases versus 216 cases). But the world of cardiology is breathless: "For the cardiology world, discovering a major new risk factor as well as an effective treatment is like hitting a walk-off home run to win the World Series," says Dr. Eugene Braunwald at Brigham and Woman's Hospital. And the corporate world is rubbing its hands with glee. The stock of AstraZeneca, maker of Crestor, climbed 45 percent after JUPITER was halted last March. The lab test for C-reactive protein costs \$50-\$80 and Crestor costs \$1,400 per year. If publicity for JUPITER increases the number of people taking the statin, business analysts estimate that AstraZeneca's already \$3.5 billion in annual sales for Crestor will double over the next five years. And if the official guidelines are changed to include CRP as a risk factor, seven to ten million more American adults could join the ranks of those "at risk for heart disease" and needing treatment with statins, which, to meet federal guidelines, could potentially mean \$14 billion per year for the drug company. P.S. Dr. Ridker, chief author of JUPITER, co-invented the CRP test, with Brigham and Women's Hospital holding the patent and patent rights having been licensed in part to AstraZeneca.

THE CHOLESTEROL RISK FACTOR

One very interesting fact emerged from the media discussions of the JUPITER trial—with JUPITER, cardiologists have finally acknowledged that cholesterol levels do not accurately reflect a tendency to heart disease. Dr. James Stein, MD, from the University of Wisconsin Medical School in Madison, praised the study for exposing the fact that current therapeutic LDL-cholesterol levels are not only arbitrary, but are in fact a poor indicator of cardiovascular risk. "Most patients with heart attacks have normal LDL-cholesterol values," he stated. With the cholesterol theory crumbling, the industry is under intense pressure to come up with a new risk factor, and one that can be treated with the same statin drugs they have invested so much money in. Enter Dr. Ridker and C-reactive protein. Ridker has been pushing CRP as an important risk factor to be treated with statins for a number of years. But is CRP really a risk factor for heart disease, or simply an associated factor? Studies indicate the latter. In fact, a National Panel on CRP Testing found no evidence to support the premise that treating CRP will improve survival rates (www.urmc.rochester. edu/pr/News/story.cfm?id=182). Elevated CRP levels are associated with everything from anger and stress to arthritis, cancer, lupus, inflammatory disease, pneumonia, TB, oral contraceptive use, pregnancy, heart attacks, surgery, trauma, burns, strenuous exercise and many other conditions. They are a marker for disease, not a cause, but since statin drugs lower CRP levels slightly, you can bet that CRP levels will be the new cholesterol, to be feared, tested for and lowered using the dangerous and expensive drugs.

STATINS FOR PREGNANT WOMEN? TOO HORRIBLE TO BE TRUE

FDA lists statins in category X for pregnancy, along with thalidomide and accutane, meaning that they should never be taken by pregnant women (http://healthlink.mcw.edu/article/1031002752.html0). They are teratogens, with the potential to cause horrible birth defects. For this reason the March of Dimes opposed over-the-counter statin sales because of birth defect risks. But researchers at New York's Hospital for Special Surgery have pregnant women in their sights. They tested statins on mice with a condition called antiphospholipid syndrome (APS), which can cause miscarriages, and found that biochemical markers indicative of better pregnancy outcome improved. Now they are claiming that statins should be given to women with APS-induced pregnancy complications. Guillermina Girardi, PhD, lead author of the study, claims that statins are perfectly safe for pregnant women and that a trial involving pregnant women is needed. A trial like this can only get approval from the hospital's human safety review board if all the board members are on Lipitor themselves.

NEW FOOD RANKING SYSTEM

An example of how reductionist tunnel vision can lead to ludicrous conclusions is the new Overall Nutritional Quality Index (ONQI), developed by a "panel of twelve of the nation's foremost experts on nutrition" at Yale University's Griffin Prevention Research Center. Using a complex mathematical formula that looks at selected nutrients in a particular food, as well as the amount of fat, sugar, sodium, cholesterol, calories, glycemic load and other factors, the august experts have rated commonly consumed foods on a scale of one to one hundred, with one hundred being the "healthiest." The top rated food under the ONQI system? Broccoli! All but one of the foods rating 90 and above are fruits and vegetables—radish gets a 99—the exception being nonfat milk with a 91. Meats and seafood range from the twenties to the eighties in this system, with the lower numbers assigned to fatty cuts of meat such as baby back ribs and chicken wings. Obviously non-nutritious foods such as popsicles, cheese puffs and sodas get ratings below 20, along with nutrient-dense traditional foods like fried eggs, salami and bacon (www.ongi.org). The sacred foods—prized by traditional cultures as absolutely necessary for optimal

health and normal reproduction—don't even show up in the ONQI list—butter, organ meats, fish eggs, cod liver oil, and whole raw dairy products from grass-fed cows. It would be interesting to feed one group of laboratory rats a diet of high-rated foods such as broccoli, radishes and nonfat milk, and another group of rats a diet of low-rated foods such as fried eggs, salami and bacon, and compare the results. Meanwhile, expect to see the new ratings posted on various grocery store foods very soon. The scale system "will allow busy parents and others who care about nutrition a quick, at-a-glance way to see what food item is ultimately the healthiest without having to read every label" (CalorieLab Calorie Counter News, January 28, 2008). An ominous statement! Can we expect to see the ONQI replace food labels sometime in the future?

MORE NEWS ABOUT VITAMIN D

Vitamin D is in the news these days as more and more studies show the benefits of the "sunshine vitamin." Vitamin D protects against bone loss, diabetes, nervous disorders like MS, cancer and heart disease. A new study, published in the Archives of Internal Medicine, indicates that people with low vitamin D levels have a significantly higher risk of death than those with higher levels. The study involved over 13,000 people in their forties whose blood was tested for vitamin D levels and who were followed for about nine years. The participants were divided into four groups based on their vitamin D levels. Those in the bottom quarter, whose vitamin D was less than 17.8 nanograms per milliliter had a 26 percent greater risk of dying from any cause than those in the top quarter (Vol. 168 No. 15, Aug 11/25, 2008). It is studies like these that have shamed the American Academy of Pediatriacs into issuing "new" guidelines for vitamin D intake in children, raising the recommended dose from 200 to 400 IU. Actually, these guidelines are not new, but rather the old AAP recommended guidelines, in place from 1963 to 2003. In 2003, the AAP reduced the recommended dose to 200 IU, justifying this decision with a short paper containing absolutely no discussion of the scientific data and arguing that breast milk was an inferior source of vitamin D to formula (which is true if breast-feeding moms are avoiding food sources of vitamin D). The fact that vitamin D is found in foods that are conspicuously absent from the USDA official food guidelines

has led to some contradictory and even ridiculous statements by researchers. According to Neil Binkley, an associate professor of geriatrics and endocrinology at the University of Wisconsin School of Medicine and Public Health, "We were never supposed to eat our vitamin D." How people living in places like Wisconsin got their vitamin D during the winter months before the advent of vitamin D pills is not explained. Vitamin D pills are the chopped-logical choice in today's climate of confinement agriculture, animal fat avoidance and sun phobia. The AAP spent a large part of its recent position paper warning mothers to keep their infants and young children totally out of the sunshine; heliophobia has led to the widespread practice of putting sun screen on children who will spend the day fully clothed, "just in case" a noxious ray of sunlight should touch their skin.

SWEET SOURDOUGH BREAD...

A key component of our mission at the Weston A. Price

Foundation is to report on the scientific validation of traditional food ways. Recent research on bread, soon to be published in the British Journal of Nutrition, has given us a wonderful validation of the benefits of traditional sourdough bread-making techniques. Using white, whole wheat, whole wheat with barley and sourdough white breads, researchers at the University of Guelph examined how subjects responded after eating bread for breakfast and again after lunch. The ten male subjects, who were overweight and ranged between fifty and

sixty years old, showed the most positive body responses after eating sourdough white bread. With the sourdough, the subjects' blood sugar levels were lower for a similar rise in blood insulin, and this positive effect remained during the second meal and lasted hours after. Surprisingly, the worst results were seen after consumption of whole wheat and whole wheat with barley bread, which caused blood sugar

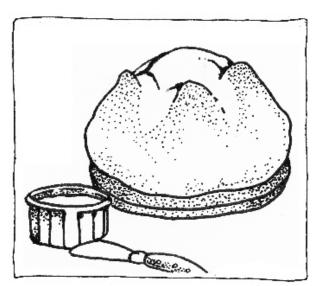
levels to spike, with high levels lasting until well after lunch. According to Professor Terry Graham, head researcher on the project, the fermentation of the sourdough "changes the nature of starches in the bread, creating a more beneficial bread." The research team is now looking into the effects of sourdough fermentation on whole wheat bread (*The Canadian Press*, July 7, 2008). What these preliminary results tell us is that consumption of improperly prepared whole grains puts the body under stress, as witnessed by the unhealthy increase in blood sugar levels.

... WITH BUTTER

Butter is bad for us, we've been told—over and over again—because butter contains saturated fat and saturated fat raises "bad" cholesterol and makes us gain weight. Yet in a recent trial carried out in Israel, described as "arguably the best such trial ever done and the most rigorous," researchers found that a low-carbohydrate diet high in saturated fat resulted in the

greatest weight loss and the most desirable lipid profiles. The trial compared three diets: a restrictedcalorie American Heart Association (AHA) diet with about 30 percent of calories from fat, with less than 10 percent of calories as saturated fat; a restricted-calorie Mediterranean diet, high in dietary fiber and monounsaturated fat; and a low-carbohydrate diet, described as "high in saturated fat," containing about 40 percent of calories with 12.5 percent as saturated fat. Calories were not restricted in the low-carbohydrate diet, yet after two years, this group had lost

the most weight—10 pounds versus six in the low-fat diet. LDL-cholesterol reduction was best with the Mediterranean diet while those on the supposedly heart-healthy AHA-recommended diet saw no reduction in LDL-cholesterol. Those on the low-carbohydrate diet had moderate reduction of LDL-cholesterol, but the best results for the ratio of total cholesterol to HDL-cholesterol occurred with the low-carb dieters, who



had increased HDL-cholesterol, the so-called "good" cholesterol, whereas the other two groups did not. Furthermore, the low-carb dieters saw the biggest reduction in C-reactive protein, a marker for inflammation, and the non-diabetic lowcarb dieters had the lowest fasting insulin levels. (Diabetics on the Mediterranean diet had the best markers for fasting glucose and insulin levels.) It's a pity the researchers did not look at a normal traditional diet containing 50-80 percent of calories as fat, with at least half of those calories as saturated fat, but the results of even slightly more calories as saturated fat compared to the AHA-recommended diet should give our dietary pundits pause. How long will it be before saturated fats like butter, tallow and coconut oil take their proper place in government dietary recommendations? Probably not any time soon. But meanwhile, those of us in the know can enjoy plenty of butter on our bread—sourdough bread!

ONE IN FIVE

Almost one in five young American adults has a personality disorder that interferes with everyday life, with a greater number abusing alcohol or drugs, according to a report in the Archives of General Psychiatry (2008;65(12):1429-1437). The findings are the result of interviews involving more than 5,000 individuals ages 19 to 25. The disorders include problems such as obsessive or compulsive tendencies, anti-social and paranoid behaviors that are not mere quirks but which interfere with ordinary functioning. Substance abuse, including drug addiction, alcoholism and drinking that interferes with school or work, affected nearly one-third of those interviewed. Pharmaceutical exectives must be rubbing their hands together at the thought of this "untapped" source of more customers, referred by their college health centers and dorm counselors. Sadly, no media commentators are suggesting the obvious solution—to clean up the food supply and stop the demonization of nutrient-dense animal foods needed by the brain.

EVEN ALTERNATIVE FOLKS ARE CONVENTIONAL

A group calling itself the Natural Therapies Research Board surveyed "hundreds of nutrition research articles" and inTerviewed over 300 "natural" nutritionists to develop a Consensus Report on Basic Health and Nutrition. These research articles were all published by "reputable scientists in peer-reviewed

Journals," thus eliminating "marketing propaganda in favor of good science." The nutritionists were agreed that we should eliminate refined and artifical sweeteners, hydrogenated or *trans* fats, artificial vitamins, over-the-counter drugs and caffeine from the diet, but the other dietary suggestions are just offshoots of the dietary guidelines, with a decided emphasis on plant foods. They recommend 5-7 servings of vegetables daily, 4-5 servings of fruit, 2-3 servings of berries (!) and 2-3 servings of nuts daily, along with 2-3 servings of "protein." No mention of whether this protein should be meat or soybeans. Milk is included as long as it is organic (youhealyourself. com/consensus/index.html). The guidelines contain no recommendations whatsoever about healthy fats and nutrient-dense animal foods. Looks like the diet dictocrats have successfully infiltrated the "natural" health movement.

GOOD NEWS ABOUT GMOs

Cultivation of conventional soybeans is on the increase, according to a report from the University of Mississippi Delta Research Center, replacing genetically engineered Roundup Ready beans. According to the report, farmers are choosing conventional seeds because of lower seed costs, lower weed control costs and comparable or higher yields. Roundup herbicide that cost \$15 per gallon in 2007 is selling for \$40-\$50 in 2008 (www.nwrage.org). Other possible reasons for the trend: increased demand for non-GMO food and studies indicating that glyphosate, the main ingredient in Roundup, increases the risk of non-Hodgkin's lymphoma, a form of cancer (*Journal of the American Cancer Society*, March 15, 1999).

FOR SCIENTISTS AND THE LAY PUBLIC

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

The Pursuit of Happiness:

How Nutrient-dense Animal Fats
Promote Mental and Emotional Health

By Chris Masterjohn

tions accompanying the broad facial development and robust immunity to degenerative disease that characterized members of isolated groups eating traditional diets. He emphasized above all the importance of the fatsoluble vitamins for prevention and reversal of tooth decay and full skeletal development. Modern science has now elucidated the role of nutrient-dense animal fats in preventing mental illness and supporting the focused, goal-oriented behavior needed to confront challenges and pursue a happy, satisfying, and successful life.

Clinically defined psychiatric disorders afflict just under half of Americans for at least one period of time during their lives. Depression and anxiety often occur together and also often occur in conjunction with physical ailments such as inflammatory bowel disease and asthma. The lifetime prevalence of depressive, anxiety, impulse control and substance abuse disorders is twice as high for people born after 1945 than for those born earlier, and the proportion of Americans suffering from three or more disorders—nearly a fifth—has more than tripled for the post-World War II generations.

A DREARY PICTURE

Since the 1980s, Americans have become much less future-oriented, racking up heavy debt rather than saving money. The personal savings rate has dropped from its traditional eight to twelve percent to near zero and went negative in both 2001 and 2005—the first times since the Great Depression.⁴ The ratio of household debt to after-tax income has doubled from just over 60 percent in the early 1980s to its current 120 percent.⁵ It would take the average American household 240 years to pay off its debt with the money it currently saves.⁶

This dreary picture of household finances reflects an even drearier picture of public finances. The national debt has recently ballooned to over ten trillion dollars and ever since September, 2007 has been increasing at nearly four billion dollars per day. In fact, the National Debt Clock located in Times Square has been keeping track of the national debt only since 1989 but has already run out of digits—in September, 2008, the dollar sign had to be removed in order to make room for the new value.

Personal success depends on confronting challenges with focused, goal-oriented behavior rather than hiding from such challenges in self-defeat, while at the same time restraining the impulse to spend and consume all the fruits of one's labor in the present in order to build something greater for the future. Societies like-

wise build wealth in the aggregate when their members refrain from consuming a portion of their resources in the present so that those resources can be invested for the future. This begins with the first seed that a farmer plants in anticipation of harvest and the first calf that is raised to maturity for the milk, cheese, and butter she will produce. It extends to the family that saves ten percent of its income to eventually purchase a home and the entrepreneur who turns natural resources and knowledge into industrial machines.

As a nation—and increasingly as a global community—we have lost sight of these principles. Worse, they have been systematically undermined by the government and politically connected corporations for nearly a century. As our government creates new money to pay for government debt or to bail out irresponsible corporations, inflation sets in and the value of savings declines. After taxes and inflation, capital investments that would otherwise earn a ten percent return earn only 1.5 percent while deposits in savings accounts steadily lose over two percent per year. Wealth can be transferred from one group of people to another through taxes and inflation when a nation fails to save and invest, but it cannot be created.

Inner levels of the government have known that fluoride is psychoactive since at least 1944, precisely the time when interest in fluoridating

The truth is that while the big boys at the top are partying away the remains of the public's wealth, each of us in the traditional foods movement is rebuilding society from the bottom up.



LEFT: Mike Mudrak displays vitamin A- and vitamin D-rich Swiss cheese from the July Swiss trip organized by Judith Mudrak, Southampton, New Jersey chapter leader.

RIGHT:
Chris Masterjohn
speaks from the heart
as he explains the
role of the fat-soluble
activators in mental and
emotional health.



public water supplies began. Since then, a whole slew of potentially psychoactive drugs and food additives has been released onto the market, although none has received such an orchestrated campaign of government support as the cholesterol-lowering statins, which produce episodes of transient global amnesia in the worst cases and modest impairments in cognitive functioning for the average adult user, but whose effects on personal finances or social and family life and whose cognitive effects in the young children to whom they are now marketed have not been studied.

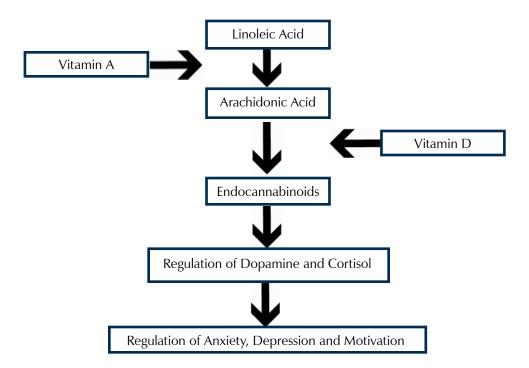
As will be shown in this article, nutrientrich animal fats are so important to a healthy psychological and emotional disposition that the orchestrated campaign to replace meat and eggs with soy and refined grains and to replace traditional animal fats with corn, soy, and canola oils has most certainly been a major factor contributing to the ongoing decimation of the American Dream.

A SILVER LINING

As future-orientation diminishes and impulse disorders increase across social strata, more children will get in trouble in school, more poor people will go to jail, and more rich people will get multi-billion dollar handouts from the government. Families that stubbornly—or heroically—hold on to old-fashioned work ethics and savings habits will be punished by inflation while banks that lend out money they do not even have to reckless investors will be rewarded with more money created out of thin air. Although this scenario may sound like a recipe for disaster, the truth is that while the big boys at the top are partying away the remains of the public's wealth, each of us in the traditional foods movement is rebuilding society from the bottom up.

As communities become more connected to their resident farmers, they will begin to recapture the basic principles of wealth creation that

FIGURE 1: ARACHIDONIC ACID COOPERATES WITH VITAMINS A AND D
TO REGULATE STRESS VIA DOPAMINE AND CORTISOL



Arachidonic acid is converted as needed to the endocannabinoids, key regulatory molecules within the central nervous system that support the production of adequate dopamine and curb the production of excess cortisol. In doing so, they help prevent anxiety and depression while supporting the motivation to sustain goal-oriented effort over time. Arachidonic acid can be directly supplied in the diet through animal fats or be made from linoleic acid found in animal fats and plant oils. Vitamin A helps the body make arachidonic acid from linoleic acid and helps the body make the receptors and other proteins that carry out the cellular response to dopamine. Vitamin D helps maintain the calcium necessary to signal the conversion of arachidonic acid to endocannabinoids and may be involved in directly initiating this signal as well.

every farmer embraces, beginning with the very simple understanding that the fruits of the harvest can never be sold before the soil is tilled and the seeds are planted. As we teach people to put aside a portion of their time to invest in healthy eating now so their vibrant years can extend decades into the future, we teach people to become more future-oriented. The lesson of future-orientation is brought home to us regularly on a smaller scale as we observe how much more delicious and satisfying an overnight bone broth is than a soup taken out of a can, or how several weeks of aging can make all the difference in the flavor and aroma of homemade sauerkraut.

At the same time, the traditional diets we embrace provide the fat-soluble nutrients necessary to give us freedom from depression and anxiety and to support the motivation we need to sustain focused, goal-oriented effort over time.

THE FAT-SOLUBLE VITAMINS

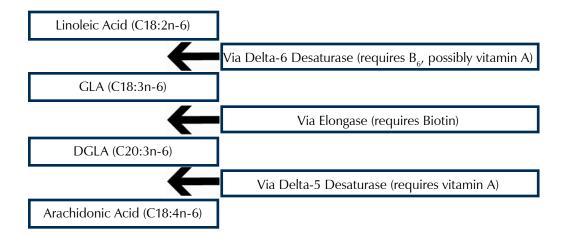
Vitamins A, D, E, and K are the four traditionally recognized fat-soluble vitamins. The essential fatty acids arachidonic acid and DHA, however, are needed in similarly small amounts and fulfill similar functions. While all of these nutrients are important to the nervous system, in this article I will discuss how arachidonic acid cooperates with vitamins A and D to promote mental health by regulating the adrenal hormone cortisol and the neurotransmitter dopamine through the potent central nervous system regulators known as endocannabinoids (See Figure 1).

Arachidonic acid is a 20-carbon omega-6 fatty acid found primarily in eggs and liver and in smaller amounts in all other animal fats including butterfat. It is generally considered a "bad fat" because certain highly regulated enzymes can convert it into inflammatory compounds, but it is nevertheless necessary for healthy hair and skin, ovulation, and thus fertility. Researchers from Harvard School of Public Health followed almost 20,000 women for over eight years and found that the more high-fat dairy the women ate the less likely they were to have problems with ovulation, while the more low-fat dairy the women ate the more likely they were to fail to ovulate and thus be infertile. These data suggest that many people in the general population may not obtain adequate amounts of arachidonic acid.

While we obtain preformed arachidonic acid from animal fats, healthy adults can also synthesize small amounts from omega-6 linoleic acid, found in both plant oils and animal fats. Vitamin A, however, is necessary for this conversion (see Figure 2) and, as we shall see, also helps carry out dopamine signaling more directly. Vitamin A is present in large amounts in liver and cod liver oil and in small amounts in eggs and butterfat. Healthy adults can convert beta-carotene and other carotenoids present in fruits and vegetables to vitamin A, but this conversion is generally inefficient. Half of Americans consume less than the RDA for vitamin A¹⁴ and over a quarter of Americans consume less than half this amount.¹⁵

Vitamin D directly interacts with vitamin A in many contexts and

FIGURE 2: VITAMIN A IS NECESSARY FOR THE CONVERSION OF LINOLEIC ACID TO ARACHIDONIC ACID



Although arachidonic acid can be supplied directly in the diet, the body can also make it from linoleic acid. Vitamin A directly stimulates the production of the delta-5 desaturase enzyme and appears from unpublished data generated by our laboratory at the University of Connecticut to at least indirectly stimulate the production of delta-6 desaturase. These enzymes also require vitamin B_6 and biotin.

is critical to maintaining blood and tissue levels of calcium. Calcium is a central regulator of arachidonic acid metabolism in virtually every type of cell, making vitamin D essential for proper handling of this nutrient. Vitamin D is present in large amounts in fatty fish and cod liver oil and in small amounts in the fats of land animals. We also obtain vitamin D when we are exposed to sunshine in the ultraviolet-B range, which at most latitudes is available only during the summer months. About half of all Americans and over 80 percent of African Americans have blood levels of vitamin D below the level needed to maximize calcium absorption.¹⁶

THE ENDOCANNABINOIDS

Arachidonic acid is the direct precursor to the endocannabinoids, the natural compounds made within the body that activate the cannabinoid receptors. These compounds and their receptors are named after *Cannabis sativa*, also known as marijuana. The active component of marijuana, THC, activates the same receptors, although since it is a pharmacological agent provided at unnaturally high doses, it has many undesirable effects that the natural activators derived from arachidonic acid do not have.

A brain cell will only convert arachidonic acid into endocannabinoids in response to a rapid influx of calcium into the cell.¹⁷ This influx is tightly controlled: the cell deliberately keeps the concentration of calcium outside its boundaries ten thousand-fold higher than the concentration of calcium within its boundaries; only when told to do so by another chemical signal

will the cell open the calcium channels that will let this mineral come flooding in. ¹⁸ Obviously, if calcium is not present, due to deficiency of either calcium or vitamin D, there will be no influx of calcium into the cell to initiate the conversion of arachidonic acid to endocannabinoids. Calcium must therefore be obtained in the diet, and vitamin D is necessary to absorb this vital mineral so that it can be transported through the blood and into the brain. It is also possible that the brain uses vitamin D as the direct chemical signal to open the calcium channels since a number of other cell types use vitamin D in a similar way. ¹⁹

Endocannabinoids regulate the adrenal response to stress, mediated primarily by the hormone cortisol, which is responsible for the "fight-or-flight" response; they also regulate the production of dopamine in the brain, which is responsible for the motivation to sustain goal-oriented effort over time. By curbing the excess production of cortisol and supporting adequate production of dopamine, endocannabinoids

THE BIG PICTURE: ENDOCANNABINOIDS, ADRENAL HORMONES, AND THYROID HORMONE

A number of lectures at this year's Wise Traditions conference covered the interactions between endocrine hormones and their relationship to disease. In the lecture on which this article is based, I discussed the ability of endocannabinoids derived from arachidonic acid with the help of vitamins A and D to prevent excess cortisol production and to protect brain cells from glutamate toxicity. Jack Samuels, conversely, discussed the ability of MSG, a form of glutamate, to increase cortisol production.

In the iodine track, Janet Lang discussed the effects of excess cortisol production on thyroid hormone status. Since cortisol shifts the body into a catabolic state in which it will break down tissues, the body will react by decreasing thyroid hormone output and thus slowing metabolism in order to prevent excessive breakdown of important tissues. Since cholesterol is required to make cortisol as well as the sex hormones, excess cortisol production also "steals" cholesterol away from sex hormone production.

David Brownstein discussed the importance of thyroid hormone in preventing heart disease. In the cholesterol-fed rabbit model, massive doses of cholesterol produce atherosclerosis, but if the cholesterol is fed with iodine or thyroid hormone, it does not.

In my article "Cholesterol and Heart Disease: Myth or Truth?" on Cholesterol-And-Health.com, I cover the importance of thyroid hormone for the functioning of the LDL receptor. In the presence of adequate thyroid hormone, the LDL receptor brings cholesterol-containing LDL into tissues such as the liver for recycling, the adrenal gland for cortisol production, or the testes and ovaries for sex hormone production. When LDL spends too much time in the blood instead of delivering cholesterol and fat-soluble vitamins to these tissues, the polyunsaturated fatty acids in its membrane oxidize and it drives the inflammatory process of atherosclerosis in the arterial wall.

These lectures demonstrate the interrelationship between endocrine hormones and the importance of vitamins, minerals and natural foods for balancing and stabilizing the entire system. By avoiding excess glutamate and other excitotoxins, by obtaining adequate arachidonic acid and fat-soluble vitamins for endocannabinoid production, and by avoiding fluoride and bromine and obtaining adequate iodine for thyroid function, we can support the proper functioning of our endocrine system and make sure our cholesterol and fat-soluble nutrients are used for health-promoting purposes rather than left to the ravages of the oxidative degeneration that characterizes toxin-loaded, nutrient-poor modern diets.

help prevent excess tension, anxiety, burnout, and feelings of self-defeat and help support the confrontation of challenges with the attitudes necessary for success.

CORTISOL: FLIGHT OR FIGHT

We often hear that it is not stress itself that is bad, but our reaction to stress. If we confront our challenges and overcome them, they will help promote our success, but if we fear them, run from them, and worry over them, we will mentally and emotionally fall apart.

One of the potential reactions to stress is the fight-or-flight response. The adrenals produce the hormone cortisol, which raises blood sugar, increases muscle tension and strength, and prepares us for the extreme reactions necessary to defend our lives when our survival is threatened. This reaction is necessary in certain situations but needs to be regulated. If we react to the minor stresses in our daily lives with the fight-or-flight response, we will be constantly anxious and will eventually burn out or develop chronic conditions like heart disease.

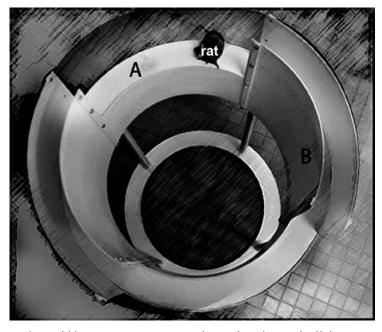
The fight-or-flight response is controlled by

the hypothalamus, an almond-sized gland-like portion of the brain that communicates with the master gland, the pituitary. The hypothalamus releases corticotropin-releasing hormone (CRH), which tells the pituitary to release its own signal into the blood, which in turn tells the adrenal gland to ramp up its production of cortisol. This system is called the hypothalamus-pituitary-adrenal axis or the HPA axis.²⁰

A number of lines of evidence suggest that the regulation of the fight-or-flight response by the hypothalamus is disturbed in anxiety and depression. Mice that are genetically altered to make too much CRH or that are injected with CRH exhibit behaviors characteristic of these two mental illnesses. Depressed adults and those who have experienced traumatic experiences earlier in life have elevated levels of CRH in their cerebrospinal fluid, and this generally normalizes if they are treated with effective therapies. A drug that antagonizes CRH reduced depression and anxiety in a placebo-controlled trial, although the drug also proved toxic to the liver.²⁰

The endocannabinoids derived from arachidonic acid are central regulators of the HPA axis. When researchers physically restrain rats for thirty minutes, their blood levels of corticosterone—the equivalent of cortisol in the human—shoot up seven-fold. When they are given a drug that raises the level of natural endocannabinoids in the brain, however, corticosterone only rises two- to three-fold.²¹ It is difficult for us to say for sure whether this suppression of the fight-or-flight response is good or bad, because we do not know what the ideal blood levels of adrenal hormones are for a given stressful situation. It would be more informative to look at

FIGURE 3.
THE ELEVATED ZERO MAZE



The elevated zero maze is shaped like a zero (an open circle) and is elevated off the ground. The rat has the choice between spending time in the open spaces or the closed spaces, thus facing the internal conflict between its fear of predators and its desire to explore its environment. More time spent in the open spaces is taken to indicate a lower level of anxiety.

how such a drug affects behavior.

In the "elevated zero maze" (Figure 3), rats are held high off the ground and are given the opportunity to stay in closed spaces or explore open spaces. This test evaluates the internal conflict the rat experiences between its fear of predators and its desire to explore its environment. The higher the level of anxiety, the more the rat will run from its fears and stay in the closed spaces; the lower the level of anxiety, the more the rat will confront its challenges and explore the open spaces. Rats on an ordinary lab chow diet will spend only twenty percent of the time in open spaces, but rats given the drug used in the previous experiment, which raises the level of natural endocannabinoids, will spend up to forty or sixty percent of the time in the open spaces.22 This finding suggests that the levels of endocannabinoids achieved in the brain on a "normal" diet can, at least in rats, be increased in order to produce less anxiety-driven and more productive behavior.

DOPAMINE: GOAL-ORIENTED BEHAVIOR

The endocannabinoids not only regulate the HPA axis; they also regulate dopamine production in the brain. Dopamine concentrations ordinarily increase in response to novel or pleasurable experiences, but this increase can be completely abolished by feeding rats a drug that blocks the cannabinoid receptor.²³

Dopamine has traditionally been seen as a "reward" stimulus. If rats are required to do work to obtain a highly palatable food, they will cease doing the work if researchers deplete them of dopamine through surgery or drugs. Researchers initially concluded from this finding that, in the absence of dopamine, the food is no longer pleasurable. Several lines of evidence have developed over the last two decades, however, that refute the simplistic understanding of dopamine as a reward molecule and show instead that dopamine provides the motivation to sustain consistent, goal-oriented effort over time. When dopamine levels drop, animals become less future-oriented and more present-oriented and are only willing to do work that will obtain an immediate reward.²⁴

One of the most often-used experiments in this line of research is called the concurrent choice procedure. In it, rats are given the choice between a regular food that they can obtain freely and a preferred food that they can only obtain by pressing a lever. Dopamine depletion does not change the rat's preference for the preferred food if the lever-pressing is not re-

DOPAMINE, TIME PREFERENCE, AND THE HOUSING BUBBLE

The hormonal system of the body has a self-regulating mechanism called *homeostasis*. Because homeostasis is the complex product of many interacting feedback systems, trying to control a specific component of the system with a drug often works for a time but eventually stops working or produces adverse effects because the drug fails to address the nutrient shortage or toxic factor to which the process of homeostasis is reacting.

Societies engage in homeostasis as well. Economists of the Austrian school call the phenomenon of future-orientation or present-orientation that appears to be regulated by dopamine "time preference" and consider it one of the key homeostatic regulators of society's allocation of resources. A high time preference means one is present-oriented, whereas a low time preference means one is future-oriented. Dopamine depletion in rats, then, increases time preference.

When people become more future-oriented and their time preference decreases, they save a greater portion of their income. When they deposit that portion into a savings account, more money is available for loans and the interest rate, which is the price of borrowing money, decreases. Large loans required for long-term production of high-priced goods such as houses are thus more available. Since people save more money when they are preparing to buy a house in the future, the interest rate acts as a homeostatic factor that communicates the reduced time preference and increased future-orientation to investors. Investors take out larger loans to build houses, expecting that the saved money will be used to purchase them once they are built.

Our monetary system, however, does not allow this homeostatic regulation to take place. When the government creates digital money out of thin air, the supply of money increases and the interest rate decreases without anyone ever having saved a penny. Investors still take out loans to build houses, but the hoped-for buyers never decreased their time preference, never increased their future-orientation, never saved their money, and simply will not be able to afford to purchase the houses that are being built. When buyers and sellers finally realize this, the housing boom is revealed to be a housing bubble and the bubble bursts. More "drugs" can be added to treat the side effects of the monetary inflation—for example, subsidies can be offered to government-sponsored mortgage entities that will offer loans to people who cannot afford them—but the overmedication of society has the same disastrous consequences as the overmedication of the body. The current financial crisis demonstrates this fact quite clearly.

The natural treatment for society is to return to future-orientation and reduced-time preference by cultivating a culture of responsible saving and by supplying nutrient-dense animal fats that help support adequate production of dopamine, which allows us to sustain effort over time in pursuit of our future goals.

quired, so the rat still finds it just as pleasurable. If the work requirement is low—for example, if the rat must only press the lever once or four times to obtain a pellet of the pleasurable food—then the dopamine-depleted rat will press the lever just as often as the normal rat. Even if weights are added to the lever so that the rat has to do more and more physical work, the dopamine-depleted rat will still do just as much work as the normal rat. It is only when the rat must do work for a longer amount of time before obtaining its reward that the dopamine-depleted rat fails to perform.²⁴

The clearest demonstration of this finding was an experiment published in 2001 in which rats were rewarded one pellet of preferred food for every fifty lever presses, but on different payment schedules. Normal rats would do just as much work to receive six pellets after 300 lever presses as they would to receive one pellet after fifty lever presses. Dopamine-depleted rats, however, began doing much less work to receive two pellets for every 100 lever presses and essentially ceased doing any work at all when they were rewarded with four pellets for every 200 lever presses.²⁴ This experiment clearly showed that dopamine is a central regulator of future-orientation and the willingness to sustain effort over time towards a goal that will be achieved at some point in the future.

Endocannabinoids thus not only prevent the anxiety and feeling of self-defeat that leads us to run from challenges rather than confronting them, but also help support the future-oriented maintenance of sustained effort that is necessary for personal financial and career success and a prosperous society.

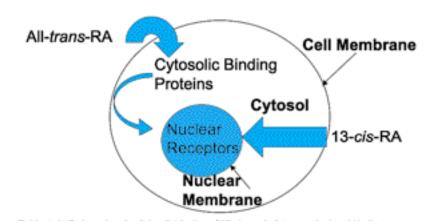
VITAMIN A: FRIEND OR FOE?

Vitamin A supports the production of arachidonic acid (see Figure 2) and supports the dopamine system more directly by stimulating the production of dopamine receptors and at least three other proteins involved in carrying out the cellular response to dopamine.²⁵ Researchers have not examined the relationship between vitamin A status and depression, but the physical ailments with which such mental illnesses are associated are in turn associated with vitamin A deficiency. For example, the incidence and severity of Crohn's disease and ulcerative colitis, the two most common forms of inflammatory bowel disease, and the incidence and severity of asthma in children, are all associated with deficient blood levels of vitamin A.26-28 This would lead many people to suggest that vitamin A might be involved in preventing depression or anxiety. Recent literature reviews, however, suggest precisely the opposite—that vitamin A causes depression. 25,29

In fact, one review even acknowledged that the actions of vitamin A on the dopamine system are "the opposite to what would be expected for

FIGURE 4: 13-CIS-RA ENTERS NUCLEUS UNREGULATED

13-Cis-RA Enters Nucleus Unregulated



SOURCE: Ruhl and others. Embryonic subcellular distribution of 13-cis and all-trans-retinoic acid indicates differential cytosolic/nuclear localization. *Toxicol Sci.* 2001;63(1):82-9.

an agent that promotes depression." Rather than suggesting that vitamin A helped prevent depression, the authors suggested that vitamin A may support dopamine signaling so robustly that it leads to dopamine exhaustion. ²⁵

There are two lines of evidence that these reviews offer in support of the hypothesis that vitamin A causes depression: the vitamin A-related drug Accutane has been associated with depression and suicide; and researchers have claimed that the high vitamin A intakes of the Arctic Inuit cause a phenomenon known as Eskimo hysteria.

Accutane is not vitamin A. The body handles it differently from natural vitamin A (see Figure 4) and there are a number of lines of evidence showing that it acts as an anti-vitamin A compound that can aggravate vitamin A deficiency. In newborn mice treated with dexamethasone, a drug that induces emphysema-like changes to lung tissue, natural vitamin A helps treat the disorder while the active ingredient of Accutane has no effect and may even make it worse.³⁰ Accutane caused night blindness, a traditional sign of vitamin A deficiency, in a child with cystic fibrosis, whereas vitamin A supplementation resolved the night blindness.³¹ In rats, the active ingredient of this drug accumulates in the eyes and interferes with vitamin A recycling; rats taking it at high doses took fifty times longer to recover from exposure to intense light than rats that did not take the drug at all.³²

A physician published a letter earlier this year reporting that two patients developed depression on Accutane; when the physician took them off the drug and supplemented them with 10-12,000 IU of vitamin A for seven to ten days, the depression resolved and they were able to go back on the drug without it recurring.³³ The totality of the evidence strongly suggests that vitamin A deficiency contributes to depression and that Accutane is associated with this mental illness because it interferes with vitamin A metabolism.

Ironically, in order to understand the connection of vitamin D with mental health, we must examine the next criticism levied against vitamin A.

VITAMIN D AND ESKIMO HYSTERIA

Recent reviews reference a 1985 paper arguing that the high intake of vitamin A among the Arctic Inuit was responsible for a phenomenon of hysteria that they called pibloktoq.34 This disorder involves several days of irritability or withdrawal, a sudden excitation wherein the victim flees the camp and engages in irrational and dangerous behavior, convulsive seizures, a twelve-hour period of coma or stuporous sleep, and a return to normal. The author offers the following lines of evidence supporting a tie to vitamin A toxicity: the Inuit consider polar bear liver, which is the richest source of vitamin A, to be toxic; explorers who eat polar bear liver out of necessity experience drowsiness, irritability, headaches, and nausea within hours of consuming it; and case reports of vitamin A toxicity involve irritability, drowsiness, double vision and anorexia.

Even within this paper the author mentions numerous facts that make this hypothesis problematic. The specific symptoms of *pibloktoq* are limited to the Arctic and Antarctic and tend to occur in the late winter and early spring. There is no compelling explanation for why vitamin A toxicity would fall within these geographical and seasonal restrictions. The Inuit consider polar bear liver safe as long as the membrane is removed and consider seal liver, which contains half as much vitamin A, safe to eat in unlimited quantities. If vitamin A were the toxic component of polar bear liver, the cultural prohibition

THE FEEL-GOOD FOODS

The foods that protect us against depression and help us engage in low time-preference, future-oriented activities are the same foods that traditional cultures valued for good health. They provide vitamins A and D, calcium and arachidonic acid in abundance.

Cod liver oil (vitamins A and D)

Butter from grass-fed animals (arachidonic acid, vitamins A and D)

Egg yolks from grass-fed chickens (arachidonic acid, vitamins A and D)

Fats from grass-fed animals (arachidonic acid, vitamins A and D)

Organ meats from grass-fed animals (arachidonic acid, vitamins A and D)

Bone broths (calcium)

Raw whole milk from grass-fed animals (calcium, arachidonic acid, vitamins A and D)

Fish eggs (vitamins A and D)

Small whole fish (calcium, vitamins A and D)

Shell fish (vitamins A and D)

against polar bear liver being eaten with the membrane would therefore be useless. Finally, vitamin A toxicity generally accompanies chronically high intakes over time, usually of chemically altered supplemental forms, whereas the hysterical episodes found among the Inuit are acute and sporadic.

In 1972, another author offered a much better hypothesis tying the episodes to hypocalcemic tetany, a disorder of involuntary muscle contractions accompanying severe deficiencies of calcium and vitamin D.³⁵ The muscle contractions occur because the peripheral nerves cannot regulate their impulses in the absence of calcium. The disorder is often accompanied by "emotional and cognitive disorganization" and convulsive seizures, probably resulting from the absence of calcium in the central nervous system. Like *pibloktoq*, episodes are acute and sporadic.

Populations that inhabit areas of the Arctic where fishing is limited or the weather is unsuitable for drying fish—the primary source of vitamin D and calcium in the Inuit diet—have high rates of tetany in infants and muscle cramps, a related symptom, in adults. The bone disease rickets, by contrast, is extremely rare, suggesting that in the physically demanding environment of the Arctic, the Inuit have adapted by giving skeletal development priority over the nervous system. The Inuit have inherited numerous cultural adaptations centered on providing sufficient calcium and vitamin D to the members of their groups, especially to pregnant and lactating women, reinforcing the concept that vitamin D and calcium are periodically limiting factors for good health in these populations.

If we are to investigate the mechanism by which vitamin D may be involved in this illness, we should look first of all to its primary function—maintaining calcium status. One compelling explanation for how vitamin D may prevent the convulsive seizures associated with hypocalcemic tetany and *pibloktoq* is that it supplies the calcium necessary for the production of endocannabinoids. The marijuana derivative hashish has been used since at least the fifteenth century to treat epilepsy. More recent research has shown that the endocannabinoids named after this drug are powerful inhibitors of glutamate toxicity and many other seizure-promoting

excitotoxins. Boosting their levels in the brain helps prevent the experimental induction of seizures, while depleting or antagonizing them lowers the amount of drugs necessary to induce seizures.³⁶

The production of endocannabinoids from arachidonic acid is critically dependent on the supply of calcium since it is the influx of this mineral into the cell that turns on the enzymes responsible for this conversion.¹⁷ At a minimum, vitamin D is required to supply sufficient calcium to the brain in order for this influx to take place. Since some cells use vitamin D as a signal to open calcium channels and allow a rapid influx of calcium,¹⁹ it is possible that brain cells require vitamin D for endocannabinoid production in this way as well.

THE PURSUIT OF HAPPINESS

When taken together these data suggest that nutrient-dense animal fats rich in vitamin A, arachidonic acid, and vitamin D will not only help us avoid mental illnesses such as depression and anxiety, but help us to confront our challenges with focused, goal-oriented behavior and to sustain effort over time in order to realize important goals in the future. While there are many other factors that influence mental health—cognitive, social, spiritual—there is a physiological element of mental health that cannot be ignored. A return to traditional foods and traditional methods of food production and preservation will help us restore a culture willing to invest in its future while supplying the nutrients necessary to support the motivation to make that future happen. 969

Chris Masterjohn is creator and maintainer of Cholesterol-And-Health.com and a frequent contributor to Wise Traditions. He is currently pursuing a PhD in Nutritional Science with a concentration in Biochemical and Molecular Nutrition at the University of Connecticut.

A return to traditional foods and traditional methods of food production and preservation will help us restore a culture willing to invest in its future while supplying the nutrients necessary to support the motivation to make that future happen.

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GREAT PR FOR RAW MILK



A big thank you to the Foundations PR gal, Kimberly Hartke, whose opinion editorial "Raw Milk and Civil Liberties" swept the political spectrum on the internet, appearing on prominent conservative Newsmax.com, liberal OpEdNews.com, and libertarian site, RationalReview.com. It was also chosen as top story by AmericanFreePress.net. Altogether the piece ran on 21 blogs and in Harrisburg, Pennsylvania's *Patriot News* newspaper.

Kimberly's next op-ed piece, "Michael Schmidt, A Continental Perspective," ran in three Canadian papers, Owen Sound Sun Times, Chilliwack Times and Woodstock Sentinal Review, and on Canadafreepress.com, a conservative internet news site. Her latest missive, "Dear Canada, Michael Schmidt is Not a Crimina," I is on the popular Canadian raw milk blog, The Bovine.word-press.com. It also appears on Michael Schmidt's Glencolton Farms website, www.radarfarms. com, CanadaFreePress.com, and on Kimberly's Bioneers blog.

Please join her efforts to help embattled dairy farmers, Michael Schmidt and Alice Jongerden in Canada by sending short (100-200 words) letters to the Canadian editors to Kim.hartke@gmail. com. Kimberly will forward your letter on to our Canadian editors' list. You must include your name, address and phone number with your letter. Calls and letters to those in authority can

indeed make a difference! You can find copies of these op-eds and follow these cases on Kimberly's blog, www.hartkeonline. blogspot.com.

Moods and the Immune System

How Low-Dose Naltrexone Can Make You Feel Better, Mentally and Physically

By Thomas Cowan, MD

remember a poignant and pivotal moment when I was in medical school back in the early 1980s. I was doing gastroenterology with a proctologist, a doctor who treats diseases of the anus and rectum. The patient was a farmer who had a frank way of talking. He told the proctologist that he had an itchy butt.

The doctor then explained that there would be a number of causes of his condition. It could be parasites, it could be ulcerative proctitis, it could be cancer of the rectum or anal region, and that he would have to order some tests. So he ordered a stool test, he ordered a blood test, and he did a sigmoid-oscopy and a colonoscopy of the lower GI, which is a barium X-ray of his lower bowel. And all this cost about ten thousand dollars and took a couple weeks.

Then the farmer came back to his office and the doctor said, "I've found out what's the matter with you. You have *pruritus ani*." *Pruritus ani* in Latin means "itchy anus." I started to laugh, which probably wasn't a good thing for my grade. I knew a little bit of Latin at the time and I said, "But he told you that."

But the proctologist was very serious: "Yes, but this is an official medical diagnosis. There is a very specific treatment for *pruritus ani*, using cortisone creams. You can find it in the textbooks."

DISAPPOINTING ANSWERS

Unfortunately, a lot of medical diagnoses are like the diagnosis the farmer got from his proctologist. For example, eczema means "skin rash" in Latin. So you go to an expensive dermatologist and tell him that your skin itches. The dermatologist looks at it and five minutes later he tells you that you have eczema. My guess is that 80-90 percent of all medical diagnoses are actually the Latin translation of what the patient told the doctor.

And that's not what you want these days. That's not why people are going to the doctor. The question is, what are patients really looking for?

Let me answer this with an analogy. Let's say you're a young man and you're interested in a young woman at your office. You ask her out for a date and say, "I'll meet you at this bar at seven o'clock on Friday night. I'll see you there." And she agrees. You're really interested in her but you're not so sure she's interested in you. So on Friday evening, you show up at the bar. You wait and wait, until after eight o'clock, and she doesn't show up.

When you see her at the office the next day you ask her, "What's the deal? You didn't show up for our date? You said you were going to come."

And she answers, "Well, you know, the bus system in San Francisco is not very good. There's all kinds of trouble. The supervisors are arguing with each other about the public transportation system. They don't really run on time, and so I wasn't there." How do you feel when you hear this kind of answer? It's definitely an explanation, and it's probably true. Yes, there is trouble with the public transportation system. But the question is, how do you feel when you hear that explanation? You feel disappointed or unfulfilled, which is pretty much the same as you should feel if you're told you have *pruritus ani* after a lot of expensive tests. There's a sense of inner disappointment. This is not a fulfilling experience.

So you go back to the young woman and say, "I don't really like this explanation. Could you say more?"

"Well," she says, "dates are not necessarily good things because they lead to relationships, and I don't really like relationships, and so I'm not sure about how much that was going to work. Anyway, human history has been clouded by trouble with relationships."

So now how do you feel? Not good, right? She's given you an unfulfilling answer.

Today we live in the age that Rudolf Steiner, founder of Anthroposophy, called the Age of Consciousness. And today, there is only one answer that would satisfy you in this situation. which is: "I don't like you. I didn't want to show up because I didn't want to spend that two hours on a date with you." That answer might hurt you, but it would also provide a deep satisfaction because it gives you the reason why this happened. You are disappointed but you'll move on because there is a certain sense of completeness and fulfillment in the experience.

I would submit to you that it's exactly the same with medicine. You go to the doctor and you say, "My butt itches, I have a skin rash. When I walk upstairs, I get chest pain." Or, something that is very common these days: "I'm emotionally depressed. I feel sad and lonely about life, especially in the winter." When you tell your doctor that you are depressed during the winter months, you don't want to hear, "You have seasonal affective disorder." That's like telling you that the buses don't run on time when you've been stood up on a date. Seasonal affective disorder means sadness during winter. Well, that's what you told the doctor. "Now it's winter and I'm sad, and you tell me I have seasonal affective disorder?"

Let's say that you feel sad all the time, that you have depression. Sometimes the doctor will say you have clinical depression. Clinical means a clinician (such as a doctor) told you that you're sad. Would you feel satisfied with that response? "Oh, now I know what's the matter with me." Of course not!

We live in the Age of the Consciousness Soul. Anything less than conscious choosing about how we are going to live our life leaves us feeling unsatisfied. And conscious choosing means that we accept the consequences of our choices. In other words, most people want to know, when they go to a doctor, what did I do? What are the consequences of the choices that I made with my diet, with my movement, with my spiritual development, with my emotional life, with my choice of laundry soap, with my choice

My guess is that 80-90 percent of all medical diagnoses are actually the Latin translation of what the patient told the doctor.

of partners, with my choice of houses? What is it that I chose that has led to my butt itching? Or to my sadness in the winter? Is it because I believed the dermatologist who said I should never go out in the sun? Or that I believed the doctors who said I should never eat animal fat because it is full of cholesterol?

It turns out that vitamin D is made from

sunlight interacting with the cholesterol in the fat of our skin. So if you choose to believe your doctors, avoiding the sun and animal fats, you're going to have low vitamin D and you're going to be seasonally affectively sad because of the consequences of that choice. Such an answer might make us feel bad—like being stood up on a date—but ultimately it is the kind of answer that satisfies us in this Age of Consciousness.

Unfortunately, if you insist on answers like this from your physician, most of them will be very frustrated because they don't think like this. They

don't have a conception of the world that's based on people choosing and accepting the consequences of their choosing. Instead, they blame most disease on germs or genes, something we can't see and presumably have no control over.

A FRAME OF REFERENCE

Every doctor who's working with patients has a frame of reference that he or she uses to understand the manifestations of a person's illness. For the vast majority today, the frame of reference is one of materialistic science, which leads to a Latin diagnosis and treatment with a pharmaceutical prescription.

My frame of reference is inspired by the work of Rudolf Steiner. It is a frame of reference based on deep philosophical questions— something frowned on by conventional medicine.

People living today basically have two conventional philosophical views to choose from. One is the notion of intelligent design, namely that plants, animals and humans were created by

God, and then boom, it's all over, here's the finished product. The other is the Darwinian theory of evolution, a slow evolution by chance, without any choices, without any direction, from slime mold up to humans, step by step, billions of years. Those are the two models we have to choose from.

However, when you look into the world, you will find some phenomena that cannot fit into either a "by chance" or an "intelligent design" model. Steiner proposes a third model: gradual evolution through conscious intel-



ligent design. The premise is that life forms were created at certain times in such a way that certain functions were actually cast out from the human being into nature and exist there as self-contained entities that we call an animal or a plant or a mineral. It's like saying, "In the beginning was human being," or "In the beginning was everything."

A good analogy is a sculpture. What did Michelangelo say about the creation of the statue of David? "The statue of David, the form, exists inside the marble and I took the extraneous bits away and the form emerged as the statue of David." That's

exactly what Michelangelo said. Amazingly, that's what Rudolf Steiner said about the evolution— a kind of reverse evolution— or the creation of the human being.

IN MAN, IN NATURE

Think of the digitalis plant—think of it as one chip of marble that falls to the ground during the creation-evolution of man and grows into the foxglove plant. At the same time on an inner plane, the human heart is formed. That's a pretty wacky idea but that's what Steiner said. Steiner said that we will know that the foxglove was formed in parallel with the formation of the human being because when you look into the human being, you will find the remnant or essence of digitalis still remaining there. And he is correct because the human heart actually has digitalis receptors, which are like locks. Digoxin is produced in our adrenal glands. It goes into the blood and works like a key on the locks in the heart. Amazingly, this chemical is only otherwise produced in nature by the foxglove plant. This fact is a very difficult thing to explain through either natural selection or intelligent design.

Likewise our bodies produce feel-good chemicals that are also produced in nature by plants like marijuana and the opium poppy. This is one of the most amazing medical discoveries of the last twenty years. The endorphins, the so-called feel-good chemicals in our bodies, are the same

as those produced by certain plants. If you are a thinking person, if you are truly conscious, these discoveries will require you to engage in some deep philosophical considerations.

WHAT IS ILLNESS?

We now come to the question, "What is an illness?" According to this line of thinking, an illness is a situation where at a particular place in your life, you need to be reunited with something in the natural world outside yourself, say, with the digitalis plant, for your future health and evolution to progress. The disease represents an inner need for reunification with something that was cast out of you into the world, and you need to have it brought back. So the process of healing is a kind of reunification process, reunification with something we prematurely lost as a human being. In this way of thinking, the world out there was created as a reservoir for us so that when we need to be reunited, it exists out there in a form that we can use. That's a really different view of medicine!

Let me give you some examples of the process of conscious choice, leading to repercussions, that is illness, and ending up with a need for reunification. In other words: see the world out there, choose something from the world, reunite with it, make all better. That's the process.

Let's take the case of a Jane Smith who makes a conscious choice to consume a lowfat diet and to use margarine instead of butter. She chooses this way of eating because she thinks it is the proper, conscious choice for a human being. Then, as the years go by, she becomes overweight and sluggish, with sluggish thyroid function, and she ends up with sluggish gall bladder function.

At this point we can discuss biochemistry. We know that we make bile acids (also called bile salts) out of cholesterol and healthy fats. If you lead a life of eating *trans* fats, if you eat processed transformed fats which don't have the right chemistry, you will end up with bile acids that are too thick and sludgy. As the years go by, the bile gets thicker and thicker, and Jane Smith's body gets into a kind of negative feedback system because the bile salts digest fats. You have weird bile salts, you don't digest the fats right. Therefore, it's harder to make healthy bile salts. The whole

process just keeps going round and round and Ms. Smith ends up with sluggish bile flow, pain when she eats, difficulty digesting fats and maybe even gall stones. You can see how this happens. You can see that whole process from conscious choice into the biochemistry into physiological consequence into pathology—that is, gall stones that you can see on an ultrasound.

Then she goes to the doctor and says, "I have pain when I eat fat and the pain is here." He looks and does an ultrasound and says, "You have gall stones." For the thinking patient, this is an unsatisfactory answer because you knew you probably had gall stones. The conventional solution is to take your gall bladder out. So the physician takes Jane's gall bladder out— but she's not restored. There's no reunification, there's no learning, no change in diet. There's just more to the vicious cycle because people who have their gall bladder out have a higher incidence of cancer of the colon. That's because the bile doesn't flow properly. So taking Jane's gall bladder out is a very unsatisfying solution for her.

TRUE HEALING

If you want to restore healthy bile flow, what do you do? There are two actions necessary. One is to make different choices, which means eating healthy fats, eating healthy cholesterol, and therefore making healthy bile acids which help digest the fats properly. The other is to look for a substance out there in the world that represents bile flow.

Steiner often described plants as three-fold, flipped-upside-down versions of the human being. The human body has three main areas, the head, the heart and lungs, and the belly or metabolic area where digestion and reproduction take place. Plants are organized in the same way, only flipped upside down. The nerve or head pole of the plant is in the roots, where the plant senses environmental conditions and takes in nutrients; the breathing is in the leaves; and the metabolic-reproductive pole is in the flowers.

One plant that stimulates the healthy flow of bile is called *Chelidonium major*, which has a bilious fluid in the roots. According to what's called the doctrine of signatures, you can see from the way a plant grows, and from what the plant does differently from other plants, what this plant

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is telling you. *Chelidonium major* tells us, "I am the reunification of the stimulation of healthy bile flow." So you extract the plant, make a preparation, reunite that with the human being and end up with healthy bile flow. Healthy bile flow plus conscious choices about food and how you live, that's a different kind of healing, true healing that involves reunification and an education of the human being so that his or her life is better. That's what we're looking for.

So the job of a doctor is to read the book of nature and to understand what it is that the human being is expressing, where that similar phenomenon is expressed in nature, and then reunify them to create a healing.

Here's another example. What's the hallmark of Parkinson's disease? There's tremor, shuffling gait and so forth, but these are characteristic of a number of diseases. But there's one thing about Parkinson's disease that's very distinct, very unusual and almost spooky. The essence of Parkinson's manifests in the face with staring, with a wide-eyed, blank face. Where do you see that in nature? You see it in the octopus, which seems to be all head. The whole thing appears to be a head floating in the ocean with an unblinking eye staring out at you. It looks for all the world like the picture of a Parkinsonian face. The octopus is the picture of Parkinson's floating in the ocean.

Here's where it gets interesting. Inside the octopus you find a dark liquid called sepia. They used to use sepia as ink. In fact the US Constitution was written with sepia ink.

So you have this picture of a blank staring face secreting a puff of black inky juice which is how it wards off predators so they don't see it. The site of the pathology in Parkinson's is in the substantia nigra, which means "black substance." In the very deep part of the brain there's a little gland called the substantia nigra which secretes black inky juice. This juice contains dopamine and other neuro-hormones, which supposedly are deficient in the case of Parkinson's. Like the bile salts, many of these neuro-hormones are made of cholesterol. So in addition to requiring unification with something in the outer world, the Parkinson's patient also needs to make changes in his or her diet.

Thus we now have a picture of the Parkin-

son's patient, who for many years chose a deficient diet, resulting in a lack of neuro-hormone production in the substantia nigra, now needing reunification with a certain kind of octopus right down into its black inky juice. That substance can be supplied with homeopathic sepia, made from black ink from a similar species, the squid. Lifestyle choices are also involved because there are certain environmental poisons, such as agricultural chemicals and *trans* fats, which specifically target the substantia nigra.

So, we really have a very different concept about what we mean by medicine and what healing is, which is a kind of reunification combined with education about the choices that led you to develop the disease in the first place.

A LESSON FROM HEROIN ADDICTS

Let's switch gears now and talk about a very interesting medicine called naltrexone. Naltrexone was created in the late 1970s as a drug to treat heroin overdose. This was around the time when there was a lot of heroin use in this country. When you overdose on heroin it depresses your respiratory centers and you go into respiratory arrest and then die. So the pharmaceutical industry spent some time looking for an antidote to heroin overdose and they came up with naltrexone.

Having worked in emergency rooms for ten years on and off, I have prescribed it myself. A person overdoses with heroin, you give him 300 mg naltrexone by IV, and it immediately reverses the respiratory decline from the heroin. The patient wakes up, walks out the door and goes and uses heroin again. Great stuff!

Nevertheless, a number of doctors in the early 1980s decided to see whether naltrexone could help heroin addicts recover from their addiction. They treated a group of heroin addicts, many of whom had AIDS and other immune problems, with 50 mg of oral naltrexone. Two things happened. One, the oral naltrexone bound with the opiate receptors and competitively blocked them. Heroin is like a key that goes into the cell, which has a specifically designed lock that fits only opiates. This is another example, as Rudolf Steiner said, of the opiates being made in a certain relationship to the human being. We actually have receptors for poppy opiate chemicals that live out there in nature.

We actually have receptors for poppy opiate chemicals that live out there in nature.

When they gave these people 50 mg of oral naltrexone, it blocked the receptors and heroin wouldn't make them high. So the addicts said, "We'd rather be dead than take this stuff." Naltrexone failed as an opiate heroin addiction medicine because all the addicts who used it felt terrible all the time.

Why did it make them feel so bad? That question led to the discovery of something probably everybody has heard of, which are endorphins, our body's own feel-good chemicals. Endorphins comprise a category of at least twenty neuro-hormones, meaning hormone-like chemicals that are made in the nervous system and other places in the body, specifically in the adrenal glands. Some of these are biochemical copies of the opiates the poppy plant makes, or perhaps we should say that the opiates the poppy plant makes are biochemical copies of the endorphins we make in our bodies. The same is true for the cannabinoids— our bodies make the same chemicals the marijuana plant makes.

Rudolf Steiner would put it like this: when the nervous system was organizing itself into a functional system, it made neural chemicals, the endorphins, in our body. As a reservoir, it put the poppy plant and the marijuana plant on the outside world as free, growing plants. As all heroin addicts have learned, if your own opiates are not being produced, or the receptors are not working (probably because of dietary choices that you have made for many years), you have a strong urge to reunite with the identical chemicals produced in the world outside yourself. They make you feel good for a while until they wear off. And of course, because they are not carefully regulated like the ones in our bodies, those from nature have terrible side effects.

The failure of naltrexone for heroin addiction directly led to the discovery of endorphins and to the discovery that feeling good, having an elevated mood, has something to do with the chemicals in our body. The research also confirmed the fact that the world out there is a mirror of the world inside ourselves.

The next step in this story involved a neurologist and immunologist named Bernard Bahari in New York City, who had a lot of AIDS patients who were heroin addicts. He had the insight to check their endorphin levels. Lo and behold he

found that their endorphin levels were extremely low, maybe as a consequence of taking heroin but maybe just naturally occurring. If you take heroin it actually suppresses endorphin production, so it's hard to know which comes first.

The next discovery was even more amazing. The researchers isolated the T-cells and found that most of the receptors on the cells of the immune system—the B-cells, T-cells, thymus cells and so forth—are endorphin receptors. That's right, over 90 percent of the receptors on all the immune cells of our bodies are endorphin receptors. These cells are like an endorphin-coding apparatus. Here's another way of saying it: the endorphins are the fuel for the proper functioning of our immune system. Without endorphins, the B-cells don't work, the T-cells don't work, and eventually our immune system starts misbehaving.

Just think of how clever your body is! It hooks up your immune system— your protection against bacteria, viruses, cancer and autoimmune disease—with the chemicals that determine how you feel about life. This is a very profound statement by the body. In other words, if you find yourself saying, "I don't feel very good, I don't really like my life, it's not going very well," but don't make any changes to remedy the situation, this chronic condition of feeling bad will have a profound impact on your immune function and even on your propensity to get immune-related illnesses such as cancer. If you're feeling bad, you're not supplying your immune system with the fuel it needs to function properly. So how you feel is not just emotional matter. There is no division of body here and mind there. There's just you. How you function and how you feel about how you function is a direct reflection and manifestation of how your body will work. One of the best ways of seeing this is through this whole endorphin story. The endorphins control the immune system.

INCREASING ENDORPHIN LEVELS

Now let's consider how to go about increasing the endorphin levels in people. We need to consider the premise that low endorphin levels are what cause people to use drugs like heroin in the first place. They're a supplement for addicts, who have an endorphin deficiency, which makes them feel bad. So if we get them to make more

How you function and how you feel about how you function is a direct reflection and manifestation of how your body will work.

endorphins or give them more endorphins, maybe they'll feel better and maybe that will stimulate their immune system to function properly so they won't get diseases like AIDS.

Researchers have tried all different ways to increase endorphin levels. Intravenous human endorphins cost one hundred thousand dollars per shot, last about five seconds and don't really work very well. They tried giving them orally. Like insulin taken orally, they don't get absorbed and so that doesn't work either.

In the process of this research they discovered a few things that naturally boost endorphin levels. The first is high-intensity exercise, the so-called runner's high, that feeling that you get when you're really exercising, when you have your second wind and you feel you won't ever get tired. We know that high-intensity exercise absolutely will boost our endorphin levels.

Another one is acupuncture. Probably one reason you can take someone's appendix out under pure acupuncture anesthesia, or do dental procedures, is because acupuncture seems to release these bursts of endorphins so you don't feel anything painful at all. You feel that life is good so you don't feel pain.

The third one, which every woman knows about, is chocolate. Chocolate has a chemical called l-phenylalanine which prevents the breakdown of endorphins, so it's a bit like sustained-release endorphins, except it doesn't last forever. Then you need more chocolate. A lot of women have found that out the hard way.

The fourth way to increase endorphin levels, which was discovered in the mid 1980s, is low-dose naltrexone. Remember that the researchers found that 50 mg blocks the endorphin receptors all day, which makes you feel terrible. But what about giving addicts 3 mg of naltrexone? And what about giving it to them right before bed?

It takes about two hours for naltrexone to get absorbed and block the receptors, and the low dose of naltrexone will only block the receptors for about an hour. Then the block wears off. The body looks at this situation and says, "Hey, somebody blocked my receptors. I need more endorphins." So it responds by producing more.

The reason you can almost consider this natural medicine is because the low amount of

naltrexone doesn't do anything harmful, except, in a few cases, inhibit sleep. Instead, it tells your body to respond in a certain direction. It is the most powerful, effective, easy and simple way discovered to boost endorphin levels. A lot of these early heroin addict patients with AIDS were treated with low-dose naltrexone in the early 1980s, and many of them are still alive.

AUTOIMMUNE DISEASE

According to the *New England Journal of Medicine* (November 13, 2003), "Preclinical evidence indicates overwhelmingly that opioids alter the development, differentiation and function of immune cells, and that both innate and adaptive systems are affected." Bone marrow progenitor cells, macrophages, natural killer cells, immature thymocites, T- cells and B-cells are all involved. Thus the whole gamut of cells that we associate with the immune response is dependent on naturally produced opiates. In other words, autoimmune disease is really an endorphin deficiency—that's the proper diagnosis. These diseases are not caused by an over-activity of the immune system, as we've been told. They are caused by the immune system not getting what it's looking for. The immune system wants to be reunited with the poppy plant. Low-dose naltrexone helps the body reunite with its inner poppy nature by stimulating it to produce more endorphins, and when that happens, your autoimmune disease vanishes.

Multiple sclerosis (MS) is an autoimmune disease. Bernard Bahari treated 44 patients with MS. Forty-two of them went into remission—their disease stabilized and they stayed that way for the next fifteen or more years. When they discontinued taking it, their symptoms returned within one month. So this treatment does not really heal anything. But if there is anything that will help someone with MS feel better, will alleviate their spasticity and perhaps stop the autoimmune attack on their myelin, I'm all for it.

Crohn's disease is a debilitating autoimmune disease. The April 2007 issue of the *American Journal of Gastroenterology* published an article entitled, "Low-dose Naltrexone in Crohn's Disease." The researchers found that 67 percent of Crohn's disease patients went into remission with no other therapy but 3-4 mg of low-dose naltrexone before bed. About 80 percent of the participants reported a significant improvement.

I have used low-dose naltrexone successfully for Crohn's disease, ulcerative colitis and even Hashimoto's thyroiditis. In fact, for the first time I can see the way towards successfully treating autoimmune thyroid disease whereas before nothing really worked.

Low-dose naltrexone also works for rheumatoid arthritis, Sjögren's syndrome, lupus, in fact any autoimmune disease. However, it will not work with osteoarthritis, which is not an autoimmune condition.

Basically every illness that researchers have looked at—MS, irritable bowel syndrome, Crohn's disease, ulcerative colitis—shows improvement with low-dose naltrexone. The first thing that happens, as you would expect, is that people feel great because their inner poppy plant deficiency has been resolved. The second things is their disease over time (usually two to four months) starts to go into remission, as if their cells are getting what they need and the proper fuel is there. It sure beats eating a ton of chocolate.

THE GAPS DIET

I would like to correlate these findings with the Gut and Psychology Syndrome (GAPS) diet described in the book by the same name by Dr. Natasha Campbell-McBride, because there are always deeper ways of looking at any of these diseases. By the way, the correlation with the gut and the brain is not something that Dr. Campbell-McBride came up with. Other books have explored this subject, including *The Second Brain*, published in 1999 by Michael Gershon, head of gastroenterology at Cornell.

Rudolf Steiner also made this connection. He once said, "The brain is just smooshed up guts." If you imagine the intestines coiled up into the cranium, that's what they would look like. The gut has the same receptors as the brain, including receptors for serotonin, and it works on the same sort of biochemistry as the brain.

For those who have heard Dr. Campbell-McBride, you know that the two most predominant chemicals in the GAPS syndrome, chemicals that alter the immune function as well as our neurological responses, are gluteo-morphines and caseo-morphines. These are morphine-like chemicals made from gluten in grains like wheat and casein in milk. These mimic the endorphin system of our bodies and cause it to get imperfect chemicals or morphine-like derivatives, not the ones it's really looking for, which are naturally made endorphins. It's as though your body is making abnormal poppy plants in your gut. You feel weird and that's why your immune system is dysfunctioning.

This is somewhat similar to the mechanism of low-dose naltrexone. What you need to do is stimulate healthy endorphins and get rid of that block as you heal the leaking gut and get rid of these toxic morphine-like derivatives. That will lead to the whole resolution of the autoimmune disease and at the same time create a feeling of emotional well-being.

THE TREATMENT

Of course, I never use low-dose naltrexone as the only treatment. Patients need to change their diet and to exercise. I usually start them out on a GAPS diet and then they transition to the more liberal Weston A. Price Foundation principles. Exercise is important and I particularly recommend Superslow weight training (see sidebar).

One hundred years ago, the healthiest people lived on farms. They ate nutrient-dense traditional foods and did hard physical labor. It would

be good if we could live as close to nature and its rhythms as possible, even getting rid of electricity, microwaves, computers and cell phones. That's impractical today—nobody wants to live without all these modern inventions. But we can still be healthy by following the principles of healthy diets, exercising and, when needed, reuniting ourselves with certain plants that produce the same substances our bodies produce.

In the case of the endorphins, however, those same substances produced by plants can be addictive and have harmful effects. That's where low-dose naltrexone comes in. When you take heroin, you tell your body that you won't be needing it to make endorphins anymore, that you will just get them from the outside. So when the heroin wears off, you feel terrible. With low-dose naltrexone, you can convince the body to make its own endorphins by blocking the receptors for just a short time. And this happens when you are asleep, so the body can devote considerable energy to this process.

THE RIGHT DIAGNOSIS

We started this discussion by talking about making the right diagnosis. Telling patients that they have an auto-immune disease, depression or addiction is like telling them they have eczema or *pruritus ani*. It's just a way of stating the obvious.

But when we diagnose these conditions as an endorphin deficiency, we provide a satisfactory, fulfilling answer, one that allows us to come up with a solution that really works. That solution includes the use of low-dose naltrexone to stimulate the body into making the natural opiates it needs to be healthy and feel good.

PROTOCOL FOR LOW-DOSE NALTREXONE

Naltrexone is a prescription drug that requires a doctor's prescription, available from specialized pharmacies that know how to make it in that dose. Do not use a time-release version. There are about seven pharmacies that can produce low-dose naltrexone, including one in Scotland and one in Canada, listed at lowdosenaltrexone.org. If you contact these pharmacies as a patient, they will give you the names of physicians who will prescribe it. You usually start with 3 mg taken before bed. The website is also a resource for the many studies carried out on low-dose naltrexone.

There are virtually no reported side effects from low-dose naltrexone except, in rare occasions, temporary sleep distrubances. Some patients have taken it for 25 years, and it seems to not lose its effectiveness. The most common reported effect is an increased sense of well-being.

SUPERSLOW WEIGHT TRAINING

Superslow weight training was developed by some orthopedic doctors in the 1980s to treat women with osteoporosis. It turns out to be a terrific exercise regime not only for osteoporosis, but also for high blood pressure, heart disease, arthritic problems and just feeling good about life. In fact, this type of exercise will help almost everyone become fit and muscular, and engage in whatever activity they want, such as golf, tennis, hiking, canoeing, or simply being able to walk through life without feeling any pain whatsoever. To achieve this goal, you need a strong, healthy, intact muscular body.

The theory is that the very slow, weight-bearing exercise results in better musculature and more oxygenated blood. It is called "SuperSlow" because each "rep" lasts as long as twenty seconds instead of the standard five to seven. Proponents say slow lifting has a decided advantage over standard weight-training techniques because it puts greater demand on the muscles, thus burning calories faster while minimizing the jerking motions that can lead to injuries. The twenty-minute sessions once or twice a week are said to provide all the cardiovascular benefits of running, cycling and other aerobic activities.

Superslow weight training provides an answer to the question, how do you get your muscles fitter? And particularly, how do you take the typical American with skinny muscles and a big belly and help him or her get strong muscles and less of a belly, in other words, to get healthier? What is it in our bodies that makes us get stronger muscles? The answer is growth hormone and testosterone. So to get stronger and healthier, we want a strategy that will help our bodies make more growth hormone and testosterone. We don't want to do this by taking testosterone or male herbs, which can have side effects, but by stimulating the body to make its own.

Superslow weight training is predicated on the premise that the way to make a muscle get stronger is to do something the muscle can't do. So, for example, you push weights with your leg in an exercise machine. You set the weight and after a certain amount of time, you can't push anymore. That's called muscle failure. In Superslow weight training, the trainer tells you to keep pushing even though you can't push anymore. He tells you to keep pushing until your arms start to shake and you're about to collapse. By contrast, with normal weight lifting you use the same muscles in repetitive actions and what does that tell your muscles? That you're strong enough to do this. So the muscles don't need to do anything. They feel smug about themselves.

With Superslow, every time you do it, you fail, and then you wait until you have healed before trying again. Let's say you do 50 pounds in a leg press in two minutes on Monday, and then fail to do any more. On Wednesday you would only be able to do 46 pounds in two minutes because you've injured yourself on Monday and you are still weak on Wednesday. So there's no point in doing it on Wednesday because you're weak. If you wait till Friday, you're back up to 50 pounds in two minutes. There's no point in doing it on Friday because you already did 50 pounds. So you wait till Monday and now the trainer raises it to 51 pounds and you do two minutes again till you fail. And your body thinks, OK, now I can do 50 pounds. The repeated failures and muscle injury stimulate your body to produce growth hormones and testosterone, and that helps your muscles get stronger and your body develop an overall sense of wellness.

The first time I did the training, I pushed 205 pounds in a leg press for one minute, 57 seconds. I went in for training once a week every week for about a year. After a year I did 295 pounds for two minutes, seven seconds. In other words, 92 pounds more in about seven seconds longer because each time I tricked my muscles into getting stronger. Lots of other parameters also improve—not just strength in every muscle group but also blood pressure, heart rate variability and energy levels.

I began Superslow weight training because I saw many patients doing the training who were so much better than I thought they would be. When I first started, the trainer said that I wouldn't need to do cardiovascular exercise. "Just do your muscles," he said, "and the heart will follow." I thought he was nuts.

At the time I was running about two or three times per week and every month I would time myself on the 400-yard dash. My best time was two minutes, three seconds. Then I started Superslow training and went nine months without running—I didn't even run for a bus. No cardiovascular exercise. Then my son came to visit and he challenged me to the 400-yard dash. Without having run in nine months, I did it in one minute, 44 seconds, and I wasn't even as tired or winded.

There are a lot of documented effects on neural endocrine endorphin release with Superslow. As with low-dose naltrexone, Superslow tricks your body into making more of the hormones it needs to be strong and fit.



Proud winners of the Weston A. Price Foundation Integrity in Science award, Bev Teter, PhD, and Galen Knight, PhD, with WAPF president Sally Fallon. Beverly Rubik, PhD, was also a recipient.



Panelists Gary Cox, Esq., Mark Kastel, David Gumpert and Judith McGeary, Esq., discuss farm freedoms and the National Animal Identification System. David Gumpert was the winner of the WAPF Integrity in Journalism award.



Closing ceremony presentation by participants in the conference children's program.



Winners of the 2008 WAPF Activist Award, from left to right: Christine Chessen (California Real Milk Association), Amos Miller, Megan Baugh for John Wood (U.S. Wellness Meats), Randy Hartnell (Vital Choice Seafood), Tim Boyd, Jack Samuels (Truth in Labeling), Mark Kastel (Cornucopia Institute) and Jeffrey Smith (Institute for Responsible Technology).



Canadian raw milk hero Michael Schmidt, Christine Chessen, president, California Real Milk Association, and Mark McAfee, president, Organic Pastures Dairy, on a panel to talk about raw milk.



Applause for Chef Victor Litkewycz and his sous chefs as they say thank you to the appreciative WAPF crowd.

Metals and the Mind

By Theresa Vernon, LAc

These metals are hard to detect and difficult to get rid of once you know you have them. That is why you don't hear much about this subject. I certainly didn't, even after studying nutrition, herbs and all kinds of natural therapies for years and years. You often hear, "Well, you could have heavy metal toxicity," but what does that mean? What do you do about it? All I had ever heard about for heavy metal toxicity was chelation and I didn't like what I heard.

Fortunately, about seven years ago I was contacted by Analytical Research Laboratories, which was founded by Dr. Paul Eck, a biochemist and nutritionist who addressed these issues in a very specific and unusual way. At that time, I had a patient who was not recovering, and I became convinced that she had serious metal problems, so we began doing his protocols, which included hair analysis. It turned out she had the biggest amount of aluminum I had ever seen in anybody. I now know that aluminum causes a lot of chronic pain; you often see it in fibromyalgia. The key fact about the metal toxicity is that it is always related to chronic fatigue and chronic adrenal fatigue.

ADRENAL FATIGUE

All chronic illness includes chronic fatigue and adrenal fatigue, whether you feel tired or not. A lot of my patients will say, "Oh, I have lots of energy," but they do not or they would not be chronically ill. There is no conventional medical treatment for adrenal fatigue unless you have reached the point of total failure, at which time you are put on cortical supplements for the rest of your life. Therefore, like the issue of toxic metals, if adrenal fatigue is not tested for, it is not discussed.

These two problems—adrenal fatigue and toxic metal buildup—are strongly related because you cannot excrete metal without good

adrenal function. Adrenal function needs to be pretty close to normal or you will start retaining metals, because the adrenal glands have such a big part to play in the proper handling of metals in the body.

The first sign of adrenal fatigue is reliance on stimulants. If the idea of going without your stimulant is an issue, you have adrenal fatigue. There,

you have taken the test, now you know.

If you need stimulants to feel good, you are already exhausted. In fact any drug that makes you feel better is a sign that you are already exhausted because ultimately their effect is a stimulant effect. Even alcohol or drugs that are said be sedative actually have a stimulating effect on the adrenals. Many people get by for years on stimulants, which can include behavioral and emotional stimulants like overexercise, workaholism and even constant worry, such as putting yourself in a fear state and indulging in anger. All of these will rev up your adrenals and keep you from feeling just how tired you really are.

Meanwhile your adrenal glands are not functioning normally and you are starting to retain all kinds of metal. Once you reach a certain threshold in the body, the metal itself becomes one of your major adrenal stressors. Now you are in a constantly poisoned state and the adrenals are getting weaker and weaker. Even if you are trying everything in the book—you are eating well, you are getting a lot of rest and doing tai chi-you cannot get well because by now you have toxic metal poison in the body, all the time taking your energy out of you.

LOCAL VARIATIONS

What happens next depends on many variables—the types of metals to which you are exposed, and how much, and even where you

live. I find very interesting variations in the hair tests, depending on where people live. In California, for instance, I primarily see aluminum toxicity; apparently there is a lot of aluminum in the area. Aluminum is a very common metal, comprising up to 14 percent of the earth's crust, so it is in the dust and in the air.

Aluminum is also an additive in

anti-perspirants. I have a theory that in warm climates, where people use a lot of anti-perspirants, they are exposed to a lot more aluminum than people living in colder climates.

On the East Coast, I see more problems with cadmium, mercury and lead, the heavy metals. On the West Coast, if someone shows mercury, you can bet they have been eating fish twice a week and have been for a while. If they aren't eating fish, they don't show mercury even if it is in their mouth. I don't know why, but that is what I have found.



sign of adrenal fatigue is reliance on

stimulants.

The first

THE COPPER PROBLEM

But the main thing that happens with metal retention is copper toxicity because everybody is getting copper constantly. Almost everything you eat has some copper in it. A lot of really popular foods like coffee, chocolate, avocado, soy, shell-fish like shrimp and lobster, and certain beans and nuts like pecans are pretty high in copper.

This isn't a problem with good liver, gall bladder and especially adrenal function. If adrenal function is strong, we just mobilize that copper and excrete it through the bile. Unfortunately, the way we live these days, that is not what is happening. Most people are not able to get rid of the excess copper. How many people have impaired liver function, congested gallbladder or adrenal fatigue? Probably the majority these days.

If adrenal function becomes impaired, the copper builds up in the liver, brain, joints and lungs. When this happens, you see very specific problems, including mental problems, liver problems and detoxification problems. Phase II liver impairment is often made worse by copper toxicity, if not actually caused by it.

You also see a lot of copper toxicity with asthma and breathing problems, including emphysema. Copper also tends to build up in the joints, leading to arthritis. Chronic skin problems are also an indication of copper toxicity.

Vegetarian diets are very high in copper because the vegetable foods are a great source of this mineral. Since vegetarians don't eat meat, and possibly not even eggs, they are not getting enough zinc, which is the natural antagonist to copper. Zinc naturally balances copper and keeps it from building up in the tissues. If you are not eating much in the way of meat and eggs, you will develop copper problems.

Excess copper interferes with energy production at the cellular level. It impairs various energy pathways in the cell so it contributes to the very fatigue that tends to make you retain copper, leading to a vicious circle. Once this pattern gets going, it is totally self-reinforcing and very difficult to break, even by adding zinc-rich foods back into the diet.

Copper is stimulating to the brain, causing it to produce high levels of the activating neurotransmitters, like serotonin, norepinephrine, epinephrine and dopamine. This is why you will see copper toxicity in manic states like paranoid schizophrenia and bi-polar disorder. The socalled copper head tends to be very emotional, very intense, often very creative. Such individuals are prone to crash and burn because their overactive mind is being supported by a very fatigued body.

Copper toxicity is a major factor in irritable bowel syndrome because copper is excreted through the bile and certain things will cause you to suddenly dump copper. If you have been building up copper, anything that causes an increase in your metabolic rate will cause a copper dump and it comes out through the bile. If you are copper toxic and suddenly under a lot of stress, this may bring on an irritable bowel episode because suddenly excess copper is moving through your bowels and irritating them.

The tendency of copper to build up in the body is similar to iron, which is another essential nutrient that is also a heavy metal. They're both highly electrical, very conductive metals that produce a lot of free radical activity and have to be bound by special proteins, such as ceruloplasmin and metallothioine. The production of these proteins is controlled by the adrenal glands, and they are produced in the liver. If the adrenals are not functioning properly and the liver is impaired, possibly from copper buildup, you will not produce these binding proteins, so copper remains in free form. That makes it a toxic and reactive free-radical generator capable of causing a lot of damage.

When this happens, the body starts to sequester it. It tries to stash it somewhere so it will do less damage. Thus, while you may be building up a lot of copper in your body, you may also have the symptoms of copper deficiency because the copper is bio-unavailable. The copper is not in a usable form so you will have both deficiency symptoms and symptoms of toxicity.

When copper accumulates under stress, when you go into a fight-or-flight condition, your adrenals are on line and ready to go. This is a short-term mechanism that is beneficial. It helps the body cope with stress, at least initially.

The body has an intricate system of checks and balances which operate through the mineral levels and ratios. If you are deficient in one mineral, another mineral accumulates and can become excessive. For example, when sodium and potassium levels go down, calcium and magnesium Copper is stimulating to the brain, causing it to produce high levels of the activating neurotransmitters, like serotonin, norepinephrine, epinephrine and dopamine. This is why you will see copper toxicity in manic states like paranoid schizophrenia and bi-polar disorder.

rise. When copper drops, iron increases. If zinc rises, copper goes down. If iron rises, chromium goes up. There is a constant and complex dance of minerals going on in the body, and the body very specifically retains and releases minerals in order to control certain body functions.

When we retain copper, this makes sodium rise. Sodium is required to produce aldosterone, the adrenal cortex hormone that causes sodium retention and high blood pressure when produced in excess. An increase in aldosterone is a defense against stress—you need that high aldosterone production during a fight-or-flight state, when you are trying to guard yourself in some way against a threat. When aldosterone increases, the body retains copper and releases magnesium, which is a calming mineral that slows you down. That is why a lot of people use it to sleep or to relieve muscle cramping. So if you are going into fight or flight, your body drops the magnesium very quickly. It is the first thing to go, because the body is trying to rev up. Increased aldosterone production will also cause a drop in zinc, which allows the copper to be retained and the sodium to go up.

The increase in copper is stimulating, it gets you going, which is just what you need in the short term. But chronic unremitting stress never gives you time to recover, you never get to address your biochemical imbalance, you never have that down time to excrete the excess copper now.

qWhen your adrenal glands are in great shape, you can excrete excess copper whenever you need to. But when your adrenal glands are just hanging on by their fingernails, just barely able to mount a stress reponse, you have an excess of stimulating copper. It becomes very hard to go to sleep and the mind races. You think, think, think, worry, worry, worry, and all of that makes it worse. You are always worn out. In fact, people

with chronic fatigue often wake up tired because they don't really ever rest.

We also use up tryptophan in these situations, as tryptophan is needed for seratonin production. Seratonin is used up under stress. You can't replace your tryptophan by eating turkey when it is being used up so quickly. What this tells me is that the body is not designed to be constantly under stress. We are meant to spend time sitting in a hammock somewhere, or weaving a basket!

MENTAL DISTURBANCES

Loss of zinc and magnesium along with retention of copper temporarily serve the body and improve the adrenal's response to stress. But with unrelenting stress or extreme catastrophic stress, these imbalances can start working against you. The copper toxicity reduces the ability to cope with normal everyday stress; it impairs adrenal function. A lot of adrenal activity requires zinc, which copper impairs. The result is a slowdown of your whole metabolism.

And your body knows when this happens, knows that you are not up to the challenge, not able to respond to stress properly. This is enough to make you feel anxious. You might feel fearful about taking on certain things because you know you are not up to it. This is the beginning of the mental disturbances that go with copper toxicity. You know that you are exhausted. You may be playing a lot of tricks to keep going. When presented with certain situations, you may panic or feel very nervous. Eventually, as you become exhausted, you may become apathetic and depressed and no longer desire to take on much of anything. So you build your little shell and get behind it.

But initially you will tend to overreact, everything is an emergency. "Oh no! I have to go buy food. . . Oh no! I have to go to the bank today." Everything is a big deal. With a lot of

Loss of zinc and magnesium along with retention of copper temporarily serve the body and improve the adrenal's response to stress.

COD LIVER OIL: PART OF THE TREATMENT PLAN

Cod liver oil is almost always part of my treatment plan—the exceptions would be in a cases where digestion is so imparied that the patient cannot tolerate the oils in cod liver oil

Cod liver oil provides vitamin A, needed for the production of adrenal hormones; and vitamin D, which works synergistically with vitamin A.

I find that cod liver oil is especially helpful for chronic pain due to inflammation. For some people, it relieves pain within one or two days after beginning with a dose of two teaspoons per day. It is also very important for treating obesity, heart conditions, skin problems, constipation and mental problems.

my patients I have to say, "Pretend you are on vacation." Instead say, "If I feel like it, I'll go get some food," because inside there is a constant sense of urgency. Automatically if anything has to be done, it's a big deal. It keeps you in that revved-up state, always overreacting to every little life event.

And you are probably using many stimulants to keep you going, which has you on edge too. You are not calm, cool and collected. I very often recommend that people with this problem slow down— no fast walking, don't drive fast, go below the speed limit. You have to send your body a signal that this is no big deal, there is no rush. If you don't do it today, you can do it tomorrow. You have to take yourself away from the edge of the cliff because otherwise you will go over the edge into full adrenal burnout. When everything is a big deal, your body gets into a vicious circle of constant stress leading to loss of zinc and magnesium and retention of copper.

The other thing that happens with excess copper and adrenal exhaustion is hypoglycemia and blood sugar swings. Low adrenal output results in low production of glucocortocoids, cortisol and cortisone, which play a role in maintaining proper blood sugar levels. So when production is low, you are underproducing those

hormones and constantly going into hypoglycemia, which can result in depression, irritability, mood swings, poor concentration, poor memory, dizziness, fatigue, sleepiness and many more unpleasant effects. A lot of people don't realize they are hypoglycemics, but if their problems tend to start an hour or two after they've eaten, that is always a clue.

Depending on the severity of the toxicity and the susceptibility of the person, copper can affect the mind very strongly. Initially copper toxicity may make a person active, productive and creative. But eventually such feelings will be undermined by lack of energy. Then we see people who have a million ideas and are always making lists, but who do not have the energy to follow through. This leads to chronic frustration followed by depression.

After a while the combination of over-activity of the mind with lack of accomplishment can make people quite nutty. They tip over the edge into obsessiveness, compulsiveness, phobias and all kinds of fixations because the mind is so intense and it has to go somewhere. In extreme cases, people become psychotic. But most people tend towards mood swings, PMS and weird episodes that they cannot explain. "I don't know why I did that or said that." They lose control briefly and then pull themselves together. They may have ways of managing copper toxicity to keep a lid on inside, but they are a lot nuttier than anybody thinks they are. They just don't let it show. They may look very calm but they aren't.

Copper increases the electrical potential of the neuron, probably because of the enhanced movement of sodium. This leads to over-production of the activating neurotransmitters—dopamine, norepinephrine, epinephrine, serotonin—leading to anxiety, racing mind and insomnia. Researchers Pfeiffer and Goldstein demonstrated that brain waves exhibit an equivalent central nervous stimulation from either 5 mg of copper or

INTERESTING FACTS ABOUT ZINC

- Zinc is rapidly lost under stress.
- Zinc is essential for protein synthesis. Low zinc status leads to problems with hormone production, healing and growth.
- Zinc is rapidly used up after injury or surgery as it is needed for protein synthesis.
- Because they are growing so rapidly, teenagers are very prone to zinc deficiencies.
- Zinc deficiency affects the immune system. Zinc kills a lot of viruses on contact. Those deficient in zinc may be susceptible to viruses.
- Zinc is a sedative and calming mineral for the mind. GABA, which is an inhibitory calming neurotransmitter, is zinc dependent.
- The body needs zinc to build protein so the skin and nails very often reveal zinc status. Stretch marks are always a sign of low zinc, at least at the time when they were formed.
- Zinc is essential for production of adrenal cortical hormones, especially aldosterone and cortisol.
- Zinc is critical for normal appetite, smell and taste. A sign of zinc deficiency is lack of appetite in the morning, or even nausea.
- When zinc is low and copper is high, the body will dump copper with consumption of meat, a high-zinc food. For some vegetarians, the copper dump can be so strong, they literally throw up any meat they try to eat. People in this situation will first need to lower their copper levels before they can eat meat. Then they will need to begin with very small amounts of white chicken meat and only very gradually introduce red meat.
- The ideal ratio of copper to zinc is 1:8 in favor of zinc.
- Some plant foods contain zinc, but when they do, it is usually accompanied by a lot of copper. Animal foods are the only good source.

The other thing that happens with high copper is slow oxidation.

5 mg of Dexedrine—so copper is equally as stimulating as Dexedrine to the mind. As we know, amphetamines can eventually make you psychotic if you keep using them.

The body will begin storing the excess copper in the brain as the liver becomes overloaded. Copper stimulates the diencephalon, which is the emotional brain. Zinc stimulates the cortex, the new brain, the rational mind, and is calming to the emotions. Thus, copper-toxic people often keep themselves in a state of high drama, and their symptoms can even mimic bi-polar syndrome. Carl Pfeiffer, PhD, MD, has found that one-half to two-thirds of schizophrenics have high levels of copper and low levels of zinc and magnesium, especially during acute phases. Copper has an adverse effect on methylation, a metabolic pathway that is essential for detoxification and for controlling free-radical activity. Poor methylation can be an important factor in cases of autism and schizophrenia.

PYROLURIA

A condition that can really put a person at great risk for copper toxicity is pyroluria. Pyroluria is characterized by excess krytopyrrole in the urine. Pyrroles attract aldehydes, and vitamin B_6 is an aldehyde. Once the pyrroles bind to B_6 , that unit now becomes a real vacuum cleaner for any zinc you might have lying around. So if you have pyroluria, from a very young age you are developing a B_6 and zinc deficiency constantly. It is hard to consume enough B_6 to overcome the drain that is happening in pyroluria.

About 52 percent of schizophrenics, 42 percent of psychiatric patients and 40 percent of alcoholics are pyrolurics. If alcoholism is associated with nervous breakdowns, suicide or even migraines, pyroluria is likely involved.

A sign of low B_6 is lack of dream memory, or very disturbing dreams. And if your B_6 is very low, you will find it hard to take zinc. Zinc will make you feel nauseated, bloated or uncomfortable.

Family tendencies seen with pyroluria include cluster headaches and migraines, depression, fatigue including chronic fatigue, sensitivity to cold, anemia, morning nausea and appetite problems, lack of dream recall, suicides and suicidal depression, motion sickness, blood sugar problems, glucose intolerance, sore lower back and upper left pain in the ribs.

COPPER, HEAVY METALS, HISTAMINE AND THE METHYLATION CYCLE

Copper-containing enzymes histaminase and ceruloplasminase regulate histamine, a neurotransmitter that makes us wakeful and that plays a role in local immune response. Elevated copper increases the level of these enzymes and thus promotes histamine breakdown. If you have high copper you will have low histamine and vice versa.

Histamine levels are related to the methylation cycle because methyl and histamine compete with each other. When histamine is high, it is a sign of under-methylation and when histamine is low, there is over-methylation.

Methyl (CH3) is very common in the body, as it is present in most enzymes and proteins. The methylation cycle is the process by which methyl groups are added to a compound; it is a metabolic pathway that is essential for detoxification and for controlling free-radical activity. When a larger molecule has a methyl group added to it, it changes its structure and function. Methylation has a lot to do with turning on and off gene expression—when the body attaches a methyl group to a gene, it becomes active and when it is removed, the gene is turned off. Methylation is very important for body development, including building the myelin sheath and all cell membranes in your brain. If it is impaired a lot of things are going to be impaired including histamine production.

With too much methyl the body will overproduce dopamine, norepinephrine, epinephrine and serotonin. This fact may explain why high copper is associated with high levels of these neurotransmitters. With too little methyl, the neurotransmitters are low.

SAMe (S-adenosyl methionine) is the main methyl donor in the body. When it donates its methyl group, it becomes S-adenosyl methionine homocysteine. Then the body can get a methyl group from the folic acid cycle and turn SAMe back into methionine. This is called the methylation cycle. When you have oxidative stress, which is what happens with toxic metals such as mercury, it will divert the homocysteine. The homocysteine will go to the formation of glutathione which is probably the primary detoxifier of heavy metals in the liver, and it will go to produce metallothionein, which you need to handle heavy metals. This will happen if your adrenals are working properly because you can't form good metallothionein without good adrenal function. If you have a lot of heavy metals in your body, you are going to start under-producing methyl to some degree because it is all being diverted to detoxification.

Drug and alcohol intolerance, constipation, crowded upper front teeth, a lot of joint problems, growing pains might even be part of B₆ deficiency. Tingling sensation, cramping, tremors, ticks, convulsive seizures and epilepsy are very strongly affected by the pyroluria, low B₆ and zinc along with copper toxicity. Both can give you epilepsy and clearing them up can definitely get rid of seizure disorders. Neuralgia and sciatica are very common in these cases. A common symptom is pale skin that will not tan. Often the most pyroluric member of the family will be the lightest one. Other signs are late onset of puberty, low stress tolerance and prematurely gray hair.

SLOW OXIDATION

The other thing that happens with high copper is slow oxidation, because high copper slows down both the adrenal and thyroid glands. Oxidation means to burn or mix with oxygen. Dr. George Watson, a researcher at UCLA, developed the concept of oxidation types. Those who burn food at a slower-than-ideal rate are slow oxidizers. If your thyroid and adrenal glands are very active you will be a fast oxidizer; if they are

sluggish, you will be a slow oxidizer.

Stress from excess copper at first puts the body in a state of fast oxidation. Over time, however, the oxidation rate starts to decline and you go into the resistant stage. This can go on for years, where you have one foot on the platform and one foot on the train, and your body is in a constantly unstable condition of being overly stressed yet unable to fully respond. It is during that time that the copper starts to build up. You start to lose your ability to handle the metal. When exhaustion sets in, when your body can't handle it any longer, that is when the oxidation rate becomes slow. This can be masked for a period if you take enough stimulants.

Slow oxidizers tend to have high calcium levels and fast oxidizers tend to have high sodium and potassium. When you see someone's chart and they have high calcium, which means they are a slow oxidizer, along with a very high sodium and potassium, which is the signature of fast oxidation, it means they are pumping themselves up enough to overcome the slow oxidation but the calcium brake is still on. The underlying condition is slow oxidation, and buildup of copper, but these individuals are revved up on stimulants.

Slow oxidizers tend to have high calcium levels and fast oxidizers tend to have high sodium and potassium.

SCHIZOPHRENIA AND AUTISM

Paranoid schizophrenia is associated with over-methylation, low histamine and high copper. Auditory hallucinations are highly indicative of over-methylation. People with over-methylation tend toward paranoia, obsession and sleep problems. Supplements that reduce methyl are folic acid, vitamin B_{12} and niacin, which is often used as a treatment for schizophrenia. Copper and zinc imbalance must also be improved in order to reduce the destruction of histamine. Schizophrenia is surprisingly treatable by nutritional means. It is really not that hard to control once you know what you are dealing with. If you do the proper things, it gets better. All the craziness starts to subside very rapidly.

In contrast to schizophrenia, all the markers of methylation are much lower in patients with autism. The nutritional supplements that often improve autistic symptoms support the normal function of the methylation cycle, that is folinic acid, DMG, TMG, methylcobalamin (which is B₁₂ with a methyl group), zinc, B₆, glutathione, cysteine and sulphate. To some degree giving glutathione, cysteine and sulphate is a way to keep the body from diverting the homocysteine into detoxification pathways. The other problem is metallothionein, which is one of the carrier proteins controlled by the adrenals. Even before you are born, it is required for immunity, brain and gastrointestinal tract maturation and the regulation of metals. Autistic children seem to be born with a low metallothionein function, so they have impairment in all these areas. They haven't matured the way they should and so are vulnerable.

Metallothionein is essential for the proper ratio of copper to zinc. If you have a poor copper-zinc ratio, you will have metallothionein dysfunction and won't be able to detoxify heavy metals. The primary nutrient needed in the formation of metallothionein is zinc. If you have mercury or lead in the gut without any metallothionein there, they are going to react with sulfhydryl groups. Sulfhydryl groups are a combination of sulfur and hydrogen and they are very much attracted to mercury, lead and cadmium, especially mercury.

Among the sulfhydryl groups in the intestines are the enzymes that break down casein and gluten. Toxic metals and low zinc disables these enzymes. This is why you see gluten and casein intolerance in autistic, bipolar and schizophrenic patients, because they all are lacking in metallothionein production. They may react violently to those foods. Without exception, high copper with low zinc along with signs of low metallothionein function with elevated levels of all kinds of toxic metals are seen in every single autistic child tested at the Pfeiffer Center.

HEALING CHRONIC ILLNESS

Many factors must be taken into account to determine the best form of diet and treatment for chronically ill patients. These factors include food sensitivities, gluten allergies, digestive needs, glucose intolerance, ability to digest fats and digestive impairments due to candida albicans, parasites and other factors. Without addressing these types of imbalances precisely, it is very difficult to succeed in healing chronic illness. Chinese Herbal Therapy, Nutritional Balancing, metal detoxification, diet, nutrition and acupuncture, particularly for pain, combined with lifestyle counseling are all important factors in healing chronic illness. Each program is specifically tailored to the patient and not all of these elements are required for healing chronic illness in everyone.

DIET

In general I recommend a low-carb, Atkins-type diet rich in animal foods and animal fats. But in many cases, this diet must be introduced slowly. Often specific herbs for digestive support are required.

CHINESE HERBAL THERAPY

Chinese Herbal Therapy is the most highly developed form of herbal medicine in the world. Many other systems of herbal therapy have much to contribute but the theoretical foundations and the system of diagnosis and treatment which makes up Chinese Herbal Therapy allows for treatment of an extremely wide range of conditions from short-term, and milder problems to so-called "incurable" conditions. While Chinese Herbal Therapy cannot do everything, often it is difficult to obtain certain results without it. It is especially helpful in reducing and eliminating the need for medications and alleviating their side effects.

NUTRITIONAL BALANCING AND HAIR TISSUE MINERAL ANALYSIS

Dr. Paul Eck developed a powerful method of nutritional therapy called Nutritional Balancing. Dr. Eck was a biochemist and naturopath who studied the nutritional status of many thousands of people for over 30 years utilizing the diagnostic method of hair tissue mineral analysis. Hair tissue mineral analysis measures the mineral content of the hair. As hair is a soft tissue of the body, the mineral content of the hair reflects the functions of the body at the cellular level of the soft tissues where all metabolic activity occurs. Blood tests are useful and very important in acute conditions but they often fail to reveal chronic conditions until they are very advanced. This is because the body keeps the blood values as close to normal as possible, even at the expense of the body tissues. Blood values must be maintained in very narrow ranges or severe, even life threatening symptoms may result. Therefore, the body will sacrifice the soft tissues if need be to maintain those values. Hair tissue mineral analysis can reveal the imbalances which have developed at the cellular, soft tissue level. Using this information, Dr. Eck developed a highly sophisticated nutritional therapy designed to reverse the toxic and degenerative developments in the body due to all types of stress. After many years of experience with this method of nutritional therapy, I can say it is the most powerful and effective method I have seen. It is the best way to address problems of toxic metals, which are very often an important factor in chronic fatigue and chronic illness in general.

HEAVY METALS AND THE LIMITS OF CHELATION

Chelation and other forms of detoxification from heavy metals can only remove metals that are in a free form. In many cases, these metals such as aluminum, mercury, nickel, cadmium and lead are tightly bound and sequestered in the body tissues. The body is actually making use of these toxic metals as substitutes for minerals that are deficient or bio-unavailable in the body. The preferred minerals are the optimal minerals needed for each enzyme function in the body. If a preferred mineral is not present, due to deficiency, bio-unavailability, or any other reason, it is replaced with a less optimal mineral in the enzyme binding site. The result is lowered efficiency and often breakdown of that enzyme function. This is an adaptive mechanism that allows us to survive in the face of deficiencies or metal toxicity. Replacing less-preferred minerals is a central concept in Nutritional Balancing and in healing chronic illness. As the balancing and replacement process proceeds, the body releases nutrients and toxic metals that were acting as replacements for the optimal minerals. Until the nutritional status of the body has shifted to a degree that supplies these minerals in a usable form to the tissues, the body will not release the toxic metals. Nutritional Balancing is a method that systematically re-balances the body chemistry to allow the tissues to release these toxic metals and replace them with the proper nutrients to allow full cellular functioning and energy production. The balancing process is achieved by providing the specific nutrients needed to balance the oxidation rate and support the energy production pathway in the cells. These nutrients are determined by the results of a properly performed hair tissue mineral analysis. As cellular energy is restored and nutritional deficiencies and bio-unavailabilities improved, healing naturally proceeds.

THE HEALING CRISIS

Detoxification, die-off, re-tracing, healing crisis—these are all terms for similar phenomena that are an important part of the healing process. Natural healing is based on encouraging the body to rebuild body functions and cleanse itself of toxic substances or infections and is not always a matter of immediately feeling better. When healing chronic illness, feeling better is often fairly low on the body's list of priorities. When the body is working to rebuild the very foundation from which human energy flows, diverting some of that precious and at this stage, limited, energy to make us feel better may not be a prudent use of the energy. As the body heals through diet, nutritional balancing and herbal therapy, little by little symptoms become more comfortable and fade away over time. But in the earlier stages of the healing process, at times there can be flare-ups of symptoms. A healing crisis is a period in the healing process when we actually feel worse than before. This can be due to a number of factors. Often when the healing process is stimulated in the body with herbal therapy, dietary changes or a nutritional program, the body's energies are directed inward to the organs and tissues where this work is occurring. Healing is work for the body and requires energy to do it. This can make us fatigued, just as when we are fighting an infection.

Many of us over-expend our energy and force it to the surface with stimulants such as coffee and sugar. We may feel better when we do this, but these stimulants ultimately exhaust us and lay the ground work for chronic illness. Natural therapies reverse this process, sending the energies deeper into the body to promote healing. But we will not have as much energy to spend as we may be accustomed to spending. Resting as much as possible is the cure for this problem and it will pass as the body becomes stronger and has more real energy available.

In the Nutritional Balancing process, often the first reason for symptoms to worsen or recur is the detoxification of heavy metals. Nutritional Balancing has a very powerful ability to support the body's own ability to release heavy metals from the tissues where they may have been building up for many years due to impaired metabolism. During the first three to nine months of the nutritional protocol and retesting process, it is very common to release metals such as copper, aluminum, mercury, manganese, cadmium and lead. As these toxic substances are released from tissue storage, and move through the blood to be excreted through the liver and kidneys, they are capable of causing some of the symptoms typical of acute exposure to the metal. In addition, for many chronically ill people, some degree of liver detoxification impairment is part of their problems and can even be due to the very metal being cleared, especially in the case of copper toxicity.

Slowing down the Nutritional Balancing program by reducing the number of times per day the protocol is taken in order to slow down the release of the metal is the simplest approach to reducing the detox symptoms. However, this can interfere with the other benefits of the program if the dosage reduction continues for many months. There are a few products that can improve the detox process to the degree that a more normal level of supplement usage can be maintained during the detox process and allow for faster progress overall in rebuilding body energy. Copper elimination often aggravates the same chronic problems the copper has been causing including skin problems, irritable bowel, digestive disturbances, headaches, neuralgia, hormonal imbalances, constipation and insomnia. The best product for improving copper detox symptoms is Extended Health's Liver Support. This was developed for use during various methods of chelation and it really does help the liver to handle the higher influx of metal to be cleansed from the system.

Nutritional Balancing is a highly sophisticated nutritional system that rebuilds the body's own ability to chelate and excrete heavy metal. It balances body chemistry to allow the cells to release metals that are sequestered deep in the tissues and are not available to be removed by externally administered chelating agents. Using a Nutritional Balancing approach also prevents the significant loss of essential minerals from the body that is typical of intravenous and oral chelation in spite of the mineral supplements that are usually given. However, the release of metal at times can be quite high so formulas such as Liver Support can bolster the liver's ability to excrete metal into the bile, through the gall bladder into the intestinal tract and then out through the bowels. All of these organs must be active enough to complete the process of full elimination of the metal.

The best general chelating product that can improve urinary output of metals such as lead, aluminum, copper and mercury without pulling out large amounts of calcium, magnesium and zinc, is the RNA Results Advanced Cellular Zeolite. This zeolite is absolutely pure and suspended in 100 percent pure water. It is nano-sized which means that very small doses are highly effective due to the greatly increased surface area of the zeolite crystals. Because the zeolite has a cagelike shape, once the positively charged molecules of mercury, lead, copper and other substances such as free radicals and toxic chemicals bond to the zeolite, they are neutralized and no longer capable of interacting with the body to cause symptoms. The zeolite leaves the body within five to seven hours along with the toxic substance that has bonded to it. Due to the low dosage required when using pure nano-sized zeolite, the digestive side effects that sometimes occur with micron-sized products do not occur. Zeolite, like all chelating substances, can only pick up metals that have been released from the tissues in a free form. This product must be purchased from a licensed health care provider.

By the way, vitamin C can act as a stimulant. Often when people go on a nutritional program, they hate being told to take less vitamin C, because they've become so dependent on high doses and they don't think they should take less. But that is what's keeping them revved up and ultimately wiping them out.

People in slow oxidation are like people with low thyroid, because it is more or less the same thing. They have dry skin and hair, they sweat little and tend toward constipation, depression, fatigue, apathy, low blood sugar, adrenal insufficiency and low blood pressure. As with low thyroid, they tend to gain weight on the hips and have a low body temperature. Slow oxidizers tend to be withdrawn, introverted, less emotionally expressive and may exhibit depression, despair and suicidal thoughts. As the slow oxidation becomes more extreme, more and more of these symptoms will develop.

COPPER AND CALCIUM

Calcium and magnesium are part of the body's braking system. These minerals help you get control and slow down, to avoid burning yourself out. You have to have a way to pull back, and calcium and magnesium are how the body does it. By contrast, sodium and potassium accelerate the metabolism, partly by increasing adrenal cortical hormones.

Newborns have a very high rate of metabolism and relatively low calcium levels. As we age the body begins to apply the calcium brake; as copper builds up, the calcium and magnesium levels rise while the sodium and potassium decline. Rising calcium in the tissues is a defense against the chronic stress which is the cause and effect of copper toxicity. So the body starts retaining calcium to buffer the effects of the copper and that calcium slows you down. That is the calcium brake.

Calcium and magnesium stabilize the body and prevent an excessive metabolism as a defense against stress. Slowing down metabolism can slow down the rate of collapse and allow the buildup of protective minerals such as calcium, magnesium and zinc. This can initially be protective. It prevents the slow oxidizer from experiencing any acute, severe stresses. In essence, since the body can no longer handle stress, it builds a calcium shell and the calcium shell numbs and

SUGGESTED READING

Nutritional Balancing and Hair Mineral Analysis, Lawrence Wilson, MD

Energy, Colin and Loren Chatsworth

Toxic Metals in Human Health and Disease, Dr. Paul C. Eck and Dr. Larry Wilson

The Strands of Health: A Guide to Understanding Hair Mineral Analysis, Rick Malter, PhD

Trace Elements and Other Essential Nutrients: Clinical Application of Tissue Mineral Analysis, Dr. David L. Watts

Toxic Metal Syndrome: How Metal Poisonings Can Affect Your Brain, Dr. H. Richard Casdorph and Dr. Morton Walker

Why Am I Always So Tired?, Ann Louise Gittleman, MS, CNS

Mental and Elemental Nutrients, Carl C. Pfeiffer, PhD, MD

Nutrition and Mental Illness, Carl C. Pfeiffer, PhD, MD

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Changing the Course of Autism, Bryan Jepson, MD

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Gut and Psychology Syndrome, Natasha Campbell-McBride, MD

Healing Schizophrenia, Abram Hoffer, MD

The Natural Medicine Guide to Schizophrenia, Stephanie Marohn

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Chronic Fatigue Unmasked, Geral E. Poesnecker, ND, DC

An Alternative Approach to Allergies, Theron G. Randolph, MD, and Ralph W. Moss, PhD

Dr. Atkins' New Diet Revolution, Dr. Robert C. Atkins

The Yeast Connection, William Crook, MD

Dr. Bernstein's Diabetes Solution, Richard K. Bernstein, MD

Nourishing Traditions, Sally Fallon with Mary Enig, PhD

Know Your Fats, Mary Enig, PhD

The Mood Cure, Julia Ross, MA

Toxic Psychiatry, Peter R. Breggin, MD

Heart Failure, Thomas J. Moore

The Schwartzbein Principle, Diana Schwartzbein, MD

dulls your sensations and your emotions so you will not over-react. You will be impervious, but the calcium shell will preserve that spark of life that remains.

A high level of calcium is a sign that calcium is building up in the soft tissues. This calcium is being taken from the bones. Yet, just the way that toxic copper is bio-unavailable, this calcium that is building up and showing up very high in the hair analyses is not actually functioning, it is not in a usable, soluble, ionic form in the blood.

TOXIC METALS

With ongoing imbalance, the body starts taking any metals that it might be retaining and using them as a substitute: lead can substitute for calcium, cadmium very readily substitutes for zinc, aluminum seems to substitute for just about everything. And the body will retain those metals; they get locked into the tissues, serving as place holders for the proper nutrients.

This is why chelation will not help the condition of toxic metal buildup. Chelation can only attach to a metal that is in free form, available to be picked up and carried out. If the toxic metal is in the body sequestered in the tissues, occurring at

enzyme-binding sites or some other location, the chelators cannot get to it, it cannot be taken out and the body will not release that metal. For instance if you have cadmium toxicity, the body very strongly retains cadmium in order to support a low sodium level because cadmium will push the sodium back up. That is part of the reason that high-cadmium substances like tobacco and marijuana can be very addictive—they raise the sodium level and make you feel more normal, as though you have good adrenal function. Your body will not release the cadmium unless it no longer needs the cadmium to support that low sodium level, which means you have got to rebuild the adrenal function until the adrenals are satisfied and say they no longer need this crutch.

HOPE

Copper overload and heavy metal toxicity are some of the most difficulty conditions to treat in modern medicine. However, recovery is possible— the right protocol involving diet, nutritional balance and gentle detoxification has helped many of my patients recover both physical and mental health. A healing protocol is outlined on page 42.

Meanwhile, it is imperative that we avoid this condition in coming generations by warning young people about the dangers of vegetarian diets and working together to reduce the toxic environmental load.

Theresa Vernon, L.Ac. is a licensed acupuncturist, Chinese herbal therapist, and nutritionist in Southern California. She works with people all over the United States and in other countries. Visit her website at www. tvernonlac.com

CHINESE HERBAL SUPPORT

In general, various forms of Chinese herbal therapy are very helpful in the early stages of healing to help control symptoms and reduce the need for medication. There are many excellent formulas to help with menstrual and menopausal symptoms, gall bladder discomfort, breathing problems and coughing, digestive weaknesses and pain of many types. The herbal tonics when used properly are an excellent method of speeding up the rebuilding process, increasing energy and reducing the effects of aging. For very targeted therapy of specific problems, it is often more effective than other methods. It combines well with Nutritional Balancing although many people find the nutritional program to be all they need.

The well known and commonly available Chinese herbal formula called Yin Chiao, or Yin Qiao is very helpful in relieving detox and die-off symptoms as well as general discomfort ranging from sore throats, insect bites, ear aches, and non-chronic headaches to poison oak and neuralgia, especially trigeminal neuralgia. Taken right away and frequently during the onset of a cold, it can stop it or make it much milder if the flu is not very strong. If it comes on anyway, Yin Chiao is very helpful with the symptoms and reduces fever. It is especially helpful in candida detoxification and can be used quite freely to control the flu-like symptoms typical of candida die off. It can be taken every hour at first until symptoms begin to subside. Then take it whenever the symptoms recur. The main contraindication is loose bowels although only a few have this problem and it is usually temporary. For some, it is just too laxative at high doses. After a while, as the candida clears the system, it will not cause such severe reactions as there will not be as much candida in the system dying off all at once. The liver will be able to take care of the toxins released and no particular symptoms will occur.

The digestive discomfort that occurs with all kinds of detox and die off situations is very often helped by the Chinese herbal formula known as Curing Pill. The Health Concerns brand called Quiet Digestion is particularly effective. Quiet Digestion is excellent for cramping, bloating, gas, generally poor digestion, nausea, diarrhea and when combined with Yin Chiao, is very good for the stomach flu. It will control irritable bowel episodes if it is taken three pills each hour and the person lies down until the symptoms pass. Usually three doses will do it. Copper toxicity causes many irritable bowel type symptoms including bloating, cramping, and abdominal tenderness. Quiet Digestion taken regularly will minimize the flare up of this problem while the copper is being eliminated.

Homeopathy Journal

DEPRESSION, ANXIETY AND HOMEOPATHY By Joette Calabrese, HMC, CCH, RSHom (NA)

She was one of those women who had everything: a loving husband, beautiful, healthy children, a well-run, stylish home, and intelligence to boot. She considered her life in order and often pondered it with satisfaction. She was slightly spoiled.

It wasn't always that way though. Only fifteen years earlier she was single and suffering from debilitating depression, anxiety attacks and chronic fatigue. These were not the typical premenstrual blues and occasional anxiety attacks; they were the overwhelming, life-altering sort. Her life was bulging with medical drama and constant searching for answers. "Why," she would whimper, "is this happening to me?" The answers were vague and confusing. From doctor to doctor she traveled only to find her inescapable illness deepening with each new medication.

Then one day, purely by accident, a friend mentioned that a relative had visited a homeopath which resulted in a cure of his anxiety attacks. Intriguing, she considered. It was an easy decision. She solicitously dragged herself into the initial visit only half believing anything could save her from her life of chronic suffering. Yet, she was struck by the first meeting. Impressively, the homeopath spent nearly two hours in consultation with her, completely focused on what she had to say. "Everything about you is important," clarified the homeopath, "even the

position in which you sleep." If nothing else, it was refreshing to have someone listen to her with genuine interest.

She left the homeopath's office with renewed hope, because it was the first time anyone had explained what was going on. The homeopath told her that each medication she had been taking was concealing a symptom that was not only causing more serious ones but was suppressing her body's ability to adjust to her condition. And further, her symptoms were not the culprits, but were gifts of insight that directed the homeopath toward finding the remedy that precisely suited her. Once the correct remedy was determined, her sufferings would no longer be veiled but slowly melt away one by one. It might take some time, warned the homeopath, but over weeks, energy would be gained, anxiety diminished and perspective restored. Most important, homeopathy isn't a cover-up of symptoms, but a proven world-wide medical method that uproots illness on both the physical and mental plane.

The day after her first dose of *Aurum metallicum* was a remarkable one. It so happened that she hoped she could eke out a day of one simple task. She simply wanted to organize a file she was compiling to build a case for social security benefits since she was no longer capable of work. She had grown accustomed to measuring her time and tasks according to what her symptoms

isn't a cover-up of symptoms, but a proven world-wide medical method that uproots illness on both the physical and mental plane.

AURUM METALLICUM: A GOLDEN REMEDY

Aurum metallicum is a homeopathic remedy that has a reputation for addressing the deepest imaginable depression and anxiety. The need for this is characterized by a feeling of isolation, joylessness and chronic fatigue. It often afflicts an educated, polished person with high standards, who enjoys achievement but is lost in the abyss of depression. This state of mind can be triggered by a business reversal or disappointed love relationship, and may include anorexia nervosa and suicidal thoughts. Yet it also touches the lives of those who have depression running in their family bloodline. The choice of this remedy is based on these and other individual characteristics and symptoms.

Homeopathy is a medical discipline that can be used at home with simple instruction for everyday maladies, however, it requires the education and experience of a trained and credentialed homeopath to address depression and anxiety.

allowed. Most days were relegated to about an hour or two of productive time while the remainder was spent napping, peppered with anxiety attacks and weeping.

This day was different. Instead of the expected, she found herself organizing other files. too, and even wandering into the kitchen and making soup from scratch. This was a once-relished task that had also been left behind due to her mounting fatigue. Yet, here she was working and providing herself with a nourishing meal! When she finished lunch, she noticed the pantry needed tidying. Instead of postponing the task as usual, she took it on with renewed gusto. "Hey," she thought, "I remember this feeling. . . it's the way I used to feel in college; energetic, capable and motivated." It was then that she realized she hadn't felt well for probably a decade. After the last jar of beans was wiped and returned to the shelf, she scanned the room for another undertaking. Maybe I'll just start a load of laundry, she considered. And so the day went: task after task accomplished with ease, unlike any other day for what seemed a life time.

That night, as she lay her head on the pillow she took pleasure in reflecting on the accomplishments of the day and only hoped this had something to do with the homeopathic remedy. "Nah, just a fluke," she decided, and fell deeply asleep.

Yet, upon awakening the next morning, despite the cold, damp weather, a factor that had always worsened her depression, she prepared herself for another productive day. This happened day after day for nearly a fortnight when finally she experienced a panic attack. She wept a little, too; more out of grief that her new well-being might be coming to an end. Then something uncommon happened. Just when the panic was coming to the usual breathless pitch, it abruptly stopped. And instead of the telltale exhaustion and residual diarrhea, there was a sense of calm. If it hadn't been for the fact that it was nearly midnight, she would have phoned her homeopath. Instead, she jotted down her experiences of the last two weeks to report at their next meeting

And so it went. Day after day, week after week, the depression appeared only occasionally, now shorter, now less dramatic. Her desire to go

out and her stamina returned. The prescription medications she once depended on had now been eliminated; so had the over-the-counter ones, and she began experiencing the life she always envisioned. After a few more visits to the homeopath, her irregular and debilitating menses were also brought to normalcy and she stopped taking naps altogether. This was about the time she met her future husband. They were introduced at a mutual friend's house—the one who had earlier shared the homeopath's name. Innocently, the friend wore strong perfume, a previous trigger to anxiety, yet none of this made our heroine ill. Instead she was particularly clever and charming that night, which caught his attention. No more fogginess and anxiety. Her intelligence sparkled.

Their marriage has been blessed with two children who are both taken to her now beloved homeopath for any ills. Conventional medications are not considered in her or her family's lives. It's homeopathy for all of them. Depression is a thing of the past. So is the fatigue, diarrhea, anxiety, foggy thinking and menstrual disorders. She has a good life, rich with the blessings of a family and vigorous health. It only looks from the outside like a privileged life was bestowed upon her. Perhaps she has higher-than-average expectations, hence the ability to bring them to fruition. There is an assumed excellence that comes from abundant health that she and her family have come to enjoy. Indeed, homeopathy has spoiled her.

Joette Calabrese, HMC,CCH,RSHom(Na) is a classical homeopath and educator. She is on staff at the British Institute of Homeopathy, Chautauqua Institute, Chautauqua, NY and Daemen College, Amherst, NY. Her CD, "Perform in the Storm," is a convenient study of homeopathic first aid and is a natural accompaniment to her phone-seminars. Her CD, "Secret Spoonfuls; Confessions of Sneaky Mom," is a Weston Pricestyled primer. She is also the author of the book Cure Yourself and Family with Homeopathy. She can be reached at 716.941.1045 for phone consultations or visit www.homeopathyworks. net . To be placed on the mailing list leave your email on the website.

Depression is a thing of the past. So is the fatigue, diarrhea, anxiety, foggy thinking and menstrual disorders.

Know Your Fats

IN THE LAND OF OZ: THE LATEST ATTACK ON COCONUT OIL By Mary G. Enig, PhD

As health-seekers in the know are increasingly consuming butter, lard, tallow and coconut oil, they should expect to see attacks on traditional fats in the media and in the scientific journals—both of which receive substantial financial support from the vegetable oil and fast food industries.

The most recent attack comes from Dr. Mehmet Oz and his co-author Dr. Mike Roizen in a blistering article entitled "Don't Monkey with Coconut Oil," widely published in the newspapers in mid November. Dr. Oz is an American cardiothoracic surgeon and prolific author of popular books on diet and health. He became famous for his frequent appearances on the Oprah Winfrey Show and will be launching a daily talk show called Dr. Oz in the fall of 2009. While his views have been described as "alternative" or "holistic," his recent article on coconut oil places him squarely in the camp of the diet dictocrats.

Roizen, his co-author, seems to have made a career out of attacking saturated fats. In a recent interview, for example, he blames foods full of saturated fats, "like croutons," for everything from obesity to aging. The only problem is that commercial croutons are made with vegetable shortenings, full of *trans* fats, not saturated fats. While the writings of Roizen and Oz mention *trans* fats in passing, their gunsights are focused on the innocent bystander, saturated fats.

The "buzz on the street" about coconut oil's benefits is firmly grounded in

science.

DEMONIZING SATURATED FATS

Coconut oil, says Dr. Oz, "is loaded with artery-clogging saturated fat and oozing with calories . . . But the buzz on the street is that it's a natural miracle food that can melt off unwanted weight, lower your blood pressure, boost your immune system, fight heart disease and fend off cancer—without the artery-clogging effects of other high-sat-fat foods such as beef, cream and cheese."

WAPF members know that saturated fats do not clog arteries, whether they are the short- and medium-chain type in coconut oil or the longer-chain fatty acids in beef, cream and cheese. In these pages we have supplied numerous references to support this statement. One in particular is the 1968 International Atherosclerosis Project, in which over 22,000 corpses in fourteen nations were cut open and examined for plaques in the arteries. Investigators found the same degree of atheroma (artery clogs) in all parts of the world—in populations that consumed large amounts of animal products rich in saturated fats and in those that were largely vegetarian.²

The "buzz on the street" about coconut oil's benefits is firmly grounded in science. Saturated fats in general enhance the immune system,³ and coconut oil in particular increases body temperature and is preferentially used by the body for energy rather than storage.⁴ The claim about benefits to blood pressure is not one that I have ever made, and as far as I know, there are no human studies that have looked at the effect of coconut oil on blood pressure.

COCONUT OIL AND AGING

Dr. Oz also claims that all saturated fats cause aging "by turning on a potentially harmful family of genes that we does call RAS genes. They tell your body to churn out inflammatory proteins that cause heart disease, stroke, wrinkles, impotence and immune system slip-ups." Actually, what these studies really showed was that fish oil and corn oil activated RAS genes to their carcinogenic form, not saturated fat. (See sidebar, page 51.) In fact, these studies confirm earlier research showing that what causes aging are toxic, rancid modern vegetable oils, full of free radicals, which are known to contribute to heart disease and cancer. A study by a plastic surgeon found that women who consumed mostly

vegetable oils had far more wrinkles than those who used traditional animal fats.⁶

COCONUT OIL FOR THE BRAIN

Oz then mentions a study carried out at Medical University of South Carolina which compared rats fed diets of coconut oil and soybean oil. "[T]he rats who scarfed down the chow laced with coconut oil not only developed more inflammation in their gray matter, but they also made more mistakes in memory tests." This study was published in the *Journal of Alzheimer's Disease*, June 14, 2008. In the study, rats were fed a diet of 10 percent fully hydrogenated coconut oil and 2 percent purified cholesterol were compared to a control group fed 12 percent soybean oil. Those on the saturated fat diet committed more memory errors and showed signs of inflammation in certain areas of the brain.

It is important to explain why so many animal studies get negative results for coconut oil. The coconut oil used in laboratory studies is usually fully hydrogenated coconut oil. The process of full hydrogenation gets rid of all the unsaturated fatty acids in coconut oil. Researchers began using fully hydrogenated coconut oil to study the effects of essential fatty acid deficiency—they used coconut oil because it is the only fat that can be fully hydrogenated and still be soft enough for rats to eat. The poor results obtained in these studies—such as the mental impairment cited by Oz—are due to essential fatty acid (EFA) deficiency and not the fault of the saturated fats in coconut oil. It is extremely deceitful for commentators to blame coconut oil in studies such as these—as they often do.

In the study quoted by Oz, the rats were also fed 2 percent purified cholesterol. This will speed up the onset of EFA deficiency if the diet is devoid of EFA. (See sidebar, page 51.)

According to Oz, "Sat fat doesn't do pretty things for your memory, either. It decreases a chemical known as brain-derived neurotrophic factor [BDNF], which is responsible for recall and learning."

BDNF is a growth stimulus for neurons and some studies indicate that lowered BDNF is associated with depression. However, lowering of BDNF does not always lead to depressive effects. It would appear that BDNF has depressive effects in some parts of the brain and anti-depressive effects in others.⁸

It would indeed be strange if saturated fats depressed brain function since the brain contains more saturated fat than almost any other organ in the body.

THE AMAZING STORY OF MR. NEWPORT

What is not strange is the fact that Dr. Oz's attack, with its specific emphasis on brain function, follows the amazing story of a case involving coconut oil and recovery from Alzheimer's disease, widely reported in newspapers and on the Internet.⁹

The story is a report by Dr. Mary Newport, a neonatologist and medical director of the newborn intensive care unit at Spring Hill Regional Hospital in Florida. About six years ago, her husband, an accountant who worked at home, began struggling with daily tasks. His deterioration progressed and he was eventually diagnosed with early onset Alzheimer's. Dr. Newport searched the Internet for clinical drug trials that would accept her husband and discovered that a drug containing medium-chain triglycerides, the kind of fat in coconut oil, had achieved remarkable results—not just slowing the progression of the disease but providing real improvement.

She decided to give her husband coconut oil, two tablespoons per day, and her husband

It would indeed be strange if saturated fats depressed brain function since the brain contains more saturated fat than almost any other organ in the body.

HOW DID COCONUT OIL SUDDENLY GET SO POPULAR?

According to Dr. Oz, "Once trans fats were exposed as the nutritional bad boys they are, food manufacturers started turning to tropical oils like coconut and palm oil to take their place. These plant oils have many of the same qualities that made trans fats so good at preserving the shelf life and flavor of processed foods. So naturally, the food industry (not to mention the diet book industry) would like us to think they're healthy."

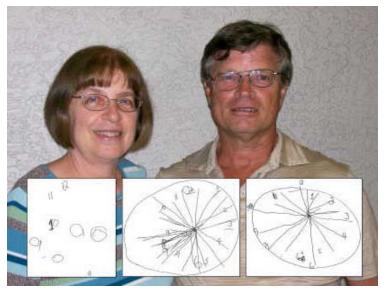
Oz has it wrong once again. Food manufacturers used tropical oils like coconut oil before the *trans* fats came on the scene. The vegetable oil industry then embarked on a long campaign of demonizing their competition, namely natural saturated fats like butter, tallow and coconut oil.¹⁰ With the recent revelations about the dangers of *trans* fats, food manufacturers are simply returning to the fats they used to use.

immediately improved, scoring 18 on a cognitive assessment, four points higher than he had scored the previous day. Within a week he showed tremendous improvement and five months later her husband was leading a relatively normal life, although still unable to resume his work as an accountant, apparently due to permanent brain damage.

One important test for Alzheimer's progression is to draw the face of a clock from memory. The illustration above shows Mr. Newport's improvement as he took coconut oil.

Why does coconut oil work so well? Several researchers have been looking into the therapeutic use of high-fat ketonic diets in the treatment of disease. In 2001, Dr. Richard L. Veech of the (National Institutes of Health) NIH, and others, published an article entitled, "Ketone bodies, potential therapeutic uses." ¹⁰ In 2003, George F. Cahill, Jr. and Richard Veech authored, "Ketoacids? Good Medicine?"11 and in 2004, Richard Veech also published a review of the therapeutic implications of ketone bodies.¹² The body produces ketone bodies from coconut oil and these can serve as food for the brain and nervous system when our cells develop insulin resistance, which happens in everyone to a greater or lesser extent as we age. With insulin resistance, ketone bodies derived from coconut oil appear to protect neurons when glucose is not available.¹³

Researchers are now looking into the exciting possibility of using coconut oil as a treatment not only for Alzheimer's disease but also for Parkinson's disease, Huntington's disease, multiple sclerosis and amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), drug resistant epilepsy, brittle type I diabetes, and diabetes type II, where there is insulin resistance. Ketone bodies may help the brain recover after a loss of oxygen in newborns through adults. Children with drug resistant epilepsy sometimes respond



Mr. Newport's drawings of a clock show his improved neurological function after beginning treatment with coconut oil.

to an extremely low-carbohydrate ketogenic diet.¹⁴

INDUSTRY DAMAGE CONTROL

The attack by Dr. Oz and Mr. Roizen amounts to clever industry damage control. Imagine the loss of income to the pharmaceutical and food industries should the American public learn about the amazing benefits of coconut oil for the brain. Coconut oil holds potential in the treatment of cancer as well, as several studies have indicated coconut oil's anticarcinogenic effects.¹⁵

Any time an attack like this appears in the media, it is good to remember that coconut and coconut oil are natural foods used by healthy peoples for thousands of years. The attack on coconut oil is not grounded in good science but in the agenda of the food industry.

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DOES SATURATED FAT CAUSE AGING AND IMPAIR MEMORY? WHAT THE STUDIES REALLY SAY By Chris Masterjohn

According to Dr. Oz, ". . . all sat fat speeds up aging. It does this by turning on a potentially harmful family of genes that we docs call RAS genes. They tell your body to churn out inflammatory proteins that cause heart disease, stroke, wrinkles, impotence and immune system slip-ups."

There are a number of studies dating back to the 1990s showing that dietary fat can encourage mutations in RAS genes, which appear to activate them to their carcinogenic form, but these studies implicated fish oil and corn oil rather than saturated fat.¹ Corn oil dose-dependently increased the activity of RAS genes and the incidence of mammary cancer in mice genetically altered to express the carcinogenic form of a particular RAS gene.² A case-control study published in the year 2000 found that people who ate more monounsaturated fat were more likely to have mutated RAS genes. Similar associations were noted for saturated fat and carbohydrate but they were not statistically significant.³ The most recent study on the subject followed more than 120,000 people for over seven years and found that intakes of saturated and monounsaturated fat at the beginning of the study had no relationship to colon cancer risk at the end of the study. Those with higher linoleic acid intakes, however, had a higher risk of cancer if mutated RAS genes were their only genetic risk factor.⁴ These studies clearly implicated polyunsatuturated fats rather than saturated fats.

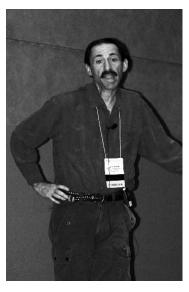
Regarding claims that saturated fat impairs memory, there are three studies claiming to show that a "saturated-fat diet" decreases levels of brain-derived neurotrophic factor (BDNF).^{5,6,7} These studies used low-fat control diets providing the majority of calories as starch and compared them to high-fat, high-sugar diets where most of the calories came from lard and sucrose. Lard contains about ten percent of its fat as polyunsaturated fatty acids, which promote oxidative stress, ^{8,9} and the rest as a balance of saturated and monounsaturated fatty acids. Sucrose itself contributes to oxidative stress.¹⁰ The most recent study showing that a lard-sucrose diet reduces BDNF levels found that additional vitamin E could normalize these levels (3), suggesting that the diet reduces them by promoting oxidative stress and thus that it is the polyunsaturated fat and sucrose in the diets rather than the saturated fat that are responsible for the problem.

A recent study purportedly showed that "saturated fat and cholesterol" impaired brain structure and memory in mature rats. The treatment diet was not only high in saturated fat and cholesterol but completely devoid of essential fatty acids (EFA), which are necessary for brain function. Most of the calories came from casein, sucrose, and corn starch for all the rats. Half of the rats were given 12 percent soybean oil and half were given 10 percent hydrogenated coconut oil and 2 percent cholesterol. It has been known since 1960 that purified cholesterol at half this amount will accelerate the onset of essential fatty acid deficiency and aggravate the resultant dermatitis and testicular degeneration, even though this same amount of cholesterol does not raise the amount of essential fatty acids needed to cure the dermatitis and actually enhances testicular development when essential fatty acids are present. The results of this study were most likely due to essential fatty acid deficiency rather than saturated fat. In order to show a destructive effect of saturated fat itself, the researchers should have provided the minimum EFA requirement in both diets.

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SOME OF OUR WONDERFUL CONFERENCE **SPEAKERS**







ABOVE: Larry Wisch

LEFT COLUMN: Theresa Vernon, David Brownstein, Lynne Farrow and Katherine Mowbray



RIGHT: Claudia Keel

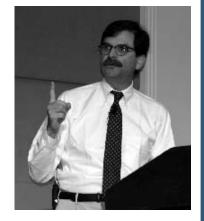
RIGHT COLUMN: Tom Cowan, Beverly Rubik, Kaayla Daniel and Mark Kastel.

BELOW: Julia Ross.











Fat: It's Not What You Think by Connie Leas

Prometheus Books, 2008

This useful and educational book by Connie Leas provides a great service to both the general reader and the confused patient who seek straightforward answers to their questions about diet and health. Connie Leas is not a biochemist or an expert in lipids, but enjoyed a successful career as an accomplished technical writer. Now retired, Leas continues to write as a hobby and chooses subjects she herself feels need particular exposure. She writes without deadlines and only pitches her books to publishers when they are complete. In her most recent effort, she brings her well-honed skills of transforming complicated information into easily accessible language to the controversial topic of fat.

Not being a recognized "authority" has its advantages. First, with no reputation to defend, Leas did not write with a hidden agenda guiding her hand. Leas approached the topic of fat and diet with the eyes of the uninitiated, and reasonably assumed that if she found the material complex and daunting, the average reader would, too. She resolved to buckle down and learn what she had to in order to explain it clearly to her readers. In matters where complex and contradictory research threatened to obscure the path to clarity, Leas leaned "toward the most persuasive and commonsensical points of view." As she encountered more controversy, especially regarding the subjects of saturated fat, cholesterol and heart disease, "...the more I researched," says Leas, "the more convinced I became that we've been misled."

The admirable result of her dedicated effort is a book that not only clearly explains the biology related to fat and its metabolism, but exposes the shaky "science" that has led to Americans' unreasonable fear and loathing of fat—both in our diet and in our bodies.

Dr. George Mann, retired professor of medicine at Vanderbilt University and former Director of the monumental Framingham Heart Study, provided the foreword to *Fat*. In it, Dr. Mann denounces the half-century of misinformation dispensed by the American Heart Association and the National Heart Institute, which blames saturated fat and cholesterol for the nation's epidemic of heart disease. "It is the greatest biomedical error of the twentieth century," writes Mann. "The advice lingers, for selfish personal reasons and commercial avarice. . . Readers will be appalled at the ways they have been misled in these matters."

Before parsing even a single fatty acid molecule, Leas introduces her readers to a couple of sociological phenomena that ought to inform and arm us in any encounter with received knowledge. An "informational cascade" is a condition in which ". . . people—even scientists—tend to follow along with and propagate the ideas of someone who acts like an authority." This phenomenon is classically demonstrated in the perpetuation of the diet-heart hypothesis, which Leas notes was started in 1968 by Surgeon General C. Everett Koop, who "took his cue from Ancel Keys, whose erroneous but popular anti-fat message started the whole anti-fat campaign."

Although scientists were never able to confirm this faulty hypothesis, it stubbornly persisted, in part because of a "reputational cascade," in which "scientists fear that questioning the popular wisdom may pose a risk to their careers." One can easily see how doctors routinely overdiagnose and overprescribe when controlled by the dangerous forces of these two phenomena. Too often today medical research in general often devolves to what Leas calls "science by consensus."



Leas not only clearly explains the biology related to fat and its metabolism, but exposes the shaky "science" that has led to Americans' unreasonable fear and loathing of fat-both in our diet and in our bodies.

Fat is not only about saturated fat and cholesterol. Topics range from fat digestion and fat's many vital functions in the body, to the anatomy of body fat cells and their role in numerous health conditions, to the dangers of lowfat diets and how man-made trans fats have infiltrated the processed food chain and become health-destroyers

Leas helpfully provides straightforward explanations of often-confusing biochemical terminology, such as triglycerides, omega-3, 6 and 9 fats, trans and cis fats, and polyunsaturated oils. We frequently see and hear these terms bandied about in the media, but even though they seem familiar from so much repetition, very few of us understand them very well. And sometimes innocent nomenclature confuses matters even more. In the case of saturated fat, for example, Leas pauses to point out to the reader that these fat molecules are saturated with hydrogen atoms, "not glop as we might imagine." We are conditioned to think "glop," of course, because we have always heard the fear-inspiring "arteryclogging" or "heart-stopping" precede "saturated fat" so many hundreds of times from purported media "authorities."

Leas discusses recent research that reveals body fat to be now considered the largest endocrine organ of the body, and elucidates the multifarious effects of some of the many hormones that body fat produces, such as leptin and adiponectin. These hormones regulate appetite and fatty acid metabolism in the body, and play important roles in relation to homeostasis, as well as in obesity, diabetes and other disorders.

The sections devoted to obesity and body fat contain many of the theories currently popular on the roots of the obesity epidemic (processed industrial foods, ubiquity of corn syrup, demise of traditional family mealtimes, and so on). But is it really so disastrous to be overweight or even obese? Paradoxically, there is mounting evidence

that people whose weight hovers between corpulent and statistically obese live longer, and are less likely to die from Alzheimer's, Parkinson's, infections and lung disease than their thin counterparts. To the further chagrin of dieters, the lowered risk of these diseases *does not* come at the expense of an increased risk of cancer, heart disease or diabetes. And fatter people may be happier than thinner people, too.

Fat: It's Not What You Think makes a valuable contribution to the growing literature that exposes the ways in which the modern, industrialized diet has led to widespread disease. Just as important, Leas helps to resurrect fat's wrongfully besmirched reputation. In just over 160 pages of text with more than 50 pages of references this clear, concise synopsis of information and research is a resource one will reach for again and again. It would make a fine introduction to the subject for the high school student interested in biology and health. If you have friends or family who are still terrified of fat and don't know that butter is better than canola oil, this could be the book to convince them. If your doctor is threatening you with statin drugs to "cure" your "dangerous" cholesterol levels, Fat just might make him think twice. After all, more than half the dry weight of our cerebral cortex is cholesterol, and you can be proof of the fact that high serum cholesterol is associated with faster mental processing.

Thanks to Connie Leas for tackling a controversial subject with common sense and good humor, and creating a useful handbook on the topic for a wide audience.

Reviewed by Katherine Czapp

Fat would make a fine introduction to the subject for the high school student interested in biology and health.

The Warrior Diet: Switch on Your Biological Powerhouse For High Energy, Explosive Strength, and a Leaner, Harder Body By Ori Hofmekler Blue Snake Books, 2nd ed., 2007

Let's be clear, the purpose of *The Warrior Diet* is not to lose weight. This way of eating is largely directed at people who are already very active, and is about their feeling great and having their edges honed sharp. That being said, the overweight person who chooses this diet would probably lose some of the extra pounds. But it's not easy. Hofmekler was a member of the Israeli Special Forces and still works out hard every day. His methods are demanding even by the standards of experienced trainers and weight lifters, and he goes for the long, lean, functional body, rather than bulk. His exercise routine is detailed in the book, but is not required for the diet.

The diet itself revolves around the idea that our ancestors did not eat three square meals a day. Hofmekler gives detailed accounts of what and when the Romans and Greeks ate, and their attitudes about food. He points out that huntergatherers would have feasted on meat when available, and that many generations of humans have experienced cycles of abundance and scarcity as far as food is concerned. The warrior diet makes deliberate use of this pattern to stimulate the body to heal and rejuvenate. The pattern of eating is as important as the food choices.

The eating cycle Hofmekler advocates seems at first to be in opposition to common dietary advice: One eats very lightly during the day and heavily at night. The day-time regimen can be a pure fast of water only, but Hofmekler himself considers this to be extreme. One eats lightly enough to still experience hunger, however; and unless one is an extreme athlete, carbohydrates are not allowed. During the fasting period, one

is urged to consume vegetable juices either from a juicer or blender and light proteins, such as yogurt, kefir or whole eggs. Live foods are emphasized for their enzymes, but Hofmekler never mentions the enzyme inhibitors found in some raw foods. Coffee is fine, as is lots of water. While he calls this fasting, one could also view it as a series of small meals, which is often recommended for weight-loss.

The evening feast has specific rules:

- 1. Start with subtle-tasting foods and move to stronger flavors.
- 2. Include a wide variety of tastes, colors and textures in your meal.
- 3. Stop when you feel satiated or when you feel more thirsty than hungry.

Hofmekler's diet choices are generally WAPF-friendly, but with some glaring exceptions. His "avoid" list includes refined flour and sugar, margarine and hydrogenated oils, soy powders, commercial whey powders, too much polyunsaturated oil, and synthetic supplements, but includes exaggerated concerns about mercury in fish oils. He loves juicing, but is clear that some vegetables need cooking—particularly the cruciferous ones. He believes that meat should also be cooked for better assimilation. Except for salads, all evening vegetables should be cooked.

Hofmekler highly recommends fermented foods of all kinds for their enzyme benefit, and is also fond of bone broth. He has nothing nice to say about pasteurized dairy and cites raw milk as beneficial. He has no objection to salt, but says that sea salt is vastly better. However, Hofmekler also recommends raw nuts and seeds and loves to eat unsweetened dry cereal at the end of the meal. And while he gives a qualified plug for saturated fats and approves of butter and cocoa

(Continued on page 54)



Hofmekler says his diet will work without the workout, but it is unclear how his method of eating is terribly different from calorie restriction, or simply eating more healthy, nutrientdense food.



A Whole Foods Primer and
The Sweetener Trap & How to Avoid It
By Beatrice Trum Hunter
Basic Health Publications, 2007

Beatrice Trum Hunter has been writing about food and nutrition for over thirty years and now at the age of ninety, she is still going strong. The fact that she has published two more books on her favorite subject at an age when most of us would be lulling our brains in quiet retirement is a tribute to her dedication to good health and the positive effects of a lifetime of careful eating.

Both A Whole Foods Primer: A Comprehensive, Instructive, and Enlightening Guide to the World of Whole Foods and The Sweetener Trap & How to Avoid It are thoroughly researched and cover their topics extensively, giving the historic and current use of a food, the benefits or concerns it offers, and practical tips. Her points are supported by many studies. These books are good resources as well as enjoyable to read.

A Whole Foods Primer has five chapters covering vegetables, fruits, whole grains, nuts and seeds, and protein foods.

Her primer offers practical points such as how to make vinegar easily and how to select certain fruits and vegetables in the store. She presents interesting details about the history of tomatoes, and of artichokes, which were considered suitable for banquets by wealthy ancient Romans. She refers to many studies explaining the health benefits of certain foods, such as why cranberries help with urinary tract problems.

In the chapter on grains, Hunter explains what happened to grains with the advent of steel-rolling mills. Grains are praised for their health benefits but Hunter recognizes the fact that not everyone can consume them. Regarding nuts, she offers a thorough summary of their variety. She praises nuts as a high-fat food and explains the benefits of nuts in heart health.

The protein section addresses amino acids thoroughly, offers a good overview of the nutritional value of eggs and refutes many myths, such as the idea that we should discard the skin of poultry. She covers organ and muscle meats, problems with soy foods and addresses the question of how much protein we actually need

Hunter has an interesting section on the question of which is safer, a wooden or plastic cutting board. Much to their surprise, researchers found that wooden boards were more sanitary.

Learning the history of many common foods helps us appreciate them not just for their nutritional value but as a food that has been enjoyed and useful to humans over countless years.

(Continued on page 55)

(Warrior Diet, continued from page 53)

butter, all the recipes at the end of the book are low-fat, calling for lean cuts of meat, skinless chicken breast, non-fat cheeses and non-fat dry milk powder.

Hofmekler says his diet will work without the workout, but it is unclear how his method of eating is terribly different from calorie restriction, or simply eating more healthy, nutrient-dense food. While his method could benefit an overweight, but otherwise healthy person, it could mean trouble for someone with unstable blood sugar, or a family history of diabetes. He correctly states that during fasting, insulin levels go down and growth hormone is released. But he incorrectly states that insulin resistance is reduced during fasting, when in fact, numerous studies show that fasting increases insulin resistance.

Overall, the diet is interesting, but seems of limited value to anyone

who actually wants to lose weight. Furthermore, for those of us not in the business of waging war, but, say, raising children, it is a distinct advantage to nourish ourselves and our families with three or even four satisfying meals during the day. Being slightly hungry all day is a good way to stay lean, mean and aggressive. . . and anti-social. For those who are healthy and looking for an edge, this diet could be modified to include high quality saturated fats and soaked seeds, while omitting raw egg whites, but for the rest of us, it gets a thumbs down.

Review by Selina Rifkin

Thrive With Diabetes:

Leading an Optimistic, Fun, Challenging, Fit, Tenacious, Enlightened, Innovative & Heroic Life.

By Lawrence D. Chalem MBA, M.Mus., CPM BookSurge Publishing

Thrive with Diabetes starts off with a lot of technical detail— the three main types of diabetes, symptoms, treatments, and what is happening down to the molecular level. While it was slightly intriguing to learn of a Type 2 diabetes treatment based on lizard drool (more specifically Gila monster saliva), the first 180 pages are pretty dry and tedious. Some of the technical details are a little beyond my expertise or ability to pass judgment on.

On page 180, the book suddenly and uncharacteristically starts to get more interesting. Then I noticed that the author is quoting extensively from the introduction of *Nourishing Traditions* by Sally Fallon and Mary G. Enig, PhD. Chalem also has several quotes from *Know Your Fats* by Mary Enig. He recognizes the importance of fat in the diet, but beyond that he starts to diverge

from Weston A. Price principles. There is a comment about saturated fat being associated with cardiovascular disease and in several places unsaturated fat is recommended over saturated fat. He also says that all vegetables should be eaten raw. I was hoping to see some discussion of the role of *trans* fats in insulin resistance per Mary Enig. He does point out that they should be avoided, but that is one area where he doesn't go into a lot of detail.

After this somewhat distorted view on what is supposed to be good nutrition, Chalem goes into lifestyle advice. The psychology section is based on the work of Erik Erikson, who was inspired by Sigmund Freud. I've never been a fan of Freud and this section contains occasionally obvious statements separated by long stretches of psychoanalytic mumbo-jumbo.

One of the main points of the book is that a carefully balanced low-carbohydrate diet makes diabetes much easier to control and easier to maintain stable blood sugar levels. I have no argument with that, but this is a thumbs downer book that the average reader, diabetic or not, will probably not have the mental endurance to make it through.

Review by Tim Boyd



(Hunter, continued from page 54)

Unfortunately, a chapter on fats and oils is missing in Hunter's primer. But other than this unfortunate oversight, the book is thorough and scientific, yet short and easy to read.

The Sweetener Trap & How to Avoid It offers the same thorough investigation, this time into sweeteners. Hunter provides a helpful glossary of sweetener terms and shares practical strategies for avoiding sweeteners. Her suggestion is to avoid sweeteners except on special occasions. In doing so, the natural sweetness of whole foods can be better appreciated.

The book is an excellent resource cataloging sweeteners— some common and some rare. It covers traditional sweeteners, plant-derived sweeteners, synthetic sweeteners, and potential

future sweeteners. If you are puzzled by sugar polyols (such as xylitol and mannitol), her chapter explains them well. She extensively covers the development of high fructose corn syrup, its appeal to industry and health concerns related to copper, chromium and magnesium deficiencies. Fruit juices are explained and caution given. The mistaken idea that fruit-juice sweetened jellies and jams are superior is clarified.

Hunter presents many interesting points, such as the historic use of stevia in Paraguay, the favorable and extensive research of stevia in Japan, and yet the disfavor given stevia by our FDA. Also, interesting was her short but thorough explanation of the shortcomings of the concept of the Glycemic Index. Many factors affect a food's GI such as cooking time. White flour spaghetti, for example, cooked for five minutes had a GI of 341 but cooked for ten to fifteen minutes had a GI of only 40.

In this book honey seems to receive the best "thumbs up" but her final word is to avoid sweeteners as much as possible.

Review by Kathy O'Brien Kramer



The Devil's Poison:
How Fluoride is Killing You
By Dean Murphy, DDS
Trafford Publishing, 2008

Fluoride is the most reactive element on the planet. It will even react with inert gas, which was once thought to be impossible, hence the term inert. It will spontaneously combust if exposed to air. It is a key element in rocket propulsion and a byproduce of nuclear weapons manufacturing. Its atomic nucleus is almost as small as hydrogen, allowing it to penetrate anywhere.

In microscopic amounts fluoride will gradually but steadily interfere with a wide range of metabolic functions causing slow deterioration and breakdown. Victims will think they are just getting old and not realize what is really going on. Mental processes are impaired, creating a dumbing down effect. Aggressive instincts, initiative and sex drive are all suppressed. And fluoride is carcinogenic. It is a key component of nerve gases that can kill in such grotesque ways that I must refrain from describing them.

Fluoride is very versatile. It can kill you slowly, or it can kill you quickly, depending on dose. And it can kill anything—even cockroaches. In the 17th and 18th centuries they had a nickname for it: The Devil's Poison.

Today the pure elemental gas is known as fluorine. Because it will react with pretty much

anything, it does not exist in nature as fluorine, but is combined with other elements in the form of fluoride. In nature it is most commonly bonded with calcium, and this compound appears to be relatively benign at least in trace amounts. The form added to our water supplies, however, is generally either sodium fluoride, which is toxic and very bioavailable, or other compounds that are even worse.

A simple carbon filter will not remove fluoride from your tap water. Since the typical shower filter is just a carbon filter, this can be a problem. Fluoride can be absorbed through skin and lungs. So even though most people don't drink their shower water, they still take in the poison, possibly in even greater amounts than when they drink it. Thus, one of the greatest advances in hygiene in the 20th century has been turned into a mixed blessing. Because fluoride has been so widely distributed in the water supply it is almost inescapable. It has also widely infiltrated the food supply. It's enough to drive one to drink-preferably something a little more alcoholic than water, like wine. Oh yeah, wine has fluoride in it too, especially if it's American. So what do you do?

Obviously, part of the answer is to avoid it as much as possible. Since that usually won't be completely possible, other means of defense would be nice. It turns out that vitamin C at least reduces some effects of fluorosis. B vitamins appear to also help, especially riboflavin or vitamin

HEALING OUR CHILDREN by Ramiel Nagel

Many of you recognize the name of Rami Nagel as a contributor of articles on sacred foods to *Wise Traditions*. Nagel has contributed his knowledge and his passion for the work of Dr. Price in this volume on feeding and nurturing children. And in addition to an extensive discussion of the work of Weston Price, *Healing Our Children* provides plenty of parenting advice. But parents will unlikely be challenged by behavior problems if they follow the dietary guidelines that Nagel provides. In contrast to so many books on child rearing and child nutrition, Nagel puts the emphasis where it belongs—on nutrient-dense foods rich in the fat-soluble activators, from organ meats to butter from grass-fed cows. An additional benefit is an excellent discussion of vaccination dangers. Thumbs up.

Review by Sally Fallon

B₂ (although we don't recommend taking isolated supplements). A big omission in Murphy's book is a lack of discussion on the role of iodine in protecting against fluoride, but as we have seen many times, the last, best defense against a toxic world is good nutrition.

Murphy goes into considerable detail about the effects of fluoride on various organs of the body and the way it interferes with vitamins and minerals. He reviews numerous animal studies. He draws on studies from other countries where it may be a little less politically incorrect to study the negative effects of fluoride. He has a couple of pages on the brilliant work of Dr. Phyllis Mullenix, who studied the effect of fluoride on the brain (and who was a speaker at *Wise Traditions* 2007).

Murphy also discusses how fluoride plays a role in mad cow disease. It is a major component of the organophosphate used to try to eradicate the warble fly in England. He refers to the excellent work of Mark Purdey in sorting out the real cause of mad cow disease. In Mr. Purdey's travels, he noticed factories putting fluoride into the environment everywhere he found mad cow disease or its equivalent in other species.

Some people are aware that Teflon® is a toxic fluoride product. What few know is that Teflon is now showing up in food packaging that

has to hold up when wet or greasy, like French fry bags and boxes, hamburger wrappers, pizza boxes, etc.

Soy already has many strikes against it and this book points out a couple of them. One of those strikes is that soy may be a fluoride concentrator.

What do Baycol, Fenfluramine (Fen/Phen), Dexfenfluramine, Vioxx®, Haloperidol (antipsychotic), Prozac and about 30 percent (or more, depending on who you listen to) of all pharmaceuticals have in common? If you've been paying attention, you probably know the answer even if you've never heard of these drugs. They contain fluoride. Many of them have also been recalled by the FDA. Methotrexate, a chemotherapy drug, is another example.

This book is loaded with good information but it is not an easy read and does have a few flaws, so I'm giving it a qualified thumbs up. There are enough typos to be slightly distracting to me. Vitamin B_{12} is referred to as cyanocobalamin, the potentially toxic form found in most supplements. The methylcobalamin form is preferable. Murphy talks a little about the role of Freon in thinning the ozone layer, which is debatable at best. Nevertheless, after reading this book, you will understand why fluoride is the poison that the devil personally prefers.

Review by Tim Boyd

After reading this book, you will understand why fluoride is the poison that the devil personally prefers.

THE SLOW POISONING OF AMERICA by John E. Erb and T. Michelle Erb

The Slow Poisoning of America provides an excellent compendium of studies showing the toxicity of MSG and its evil twin aspartame. MSG plays an important role in many of our modern illnesses—obesity, diabetes, vision problems, headaches, attention deficit disorder and autism, schizophrenia, epilepsy, Alzheimer's disease, Parkinson's and Huntington's disease. Unfortunately the Erbs' useful collection of references is followed by a diatribe against virulent *E. coli* in undercooked beef and raw milk, without any acknowledgement of the difference between industrial and grass-fed meat, or of the inherent safety system in raw milk. Most disappointing of all is their suggestion of melatonin supplements as the solution to the problems caused by MSG. Much better to avoid all processed food and build up natural defenses by consuming foods like raw milk and raw beef. Thumbs up for the first part of the book; for the rest, thumbs down. Review by Sally Fallon



Trick and Treat:
How Healthy Eating is Making Us III
By Barry Groves
Hammersimith Press, 2008

When Dr. Albert Schweitzer set up his mission in Gabon, he could find no cancer amongst the people there—but it was there when he left. Wherever it goes and for hundreds of years, modern civilization has been consistently stalked by the shadow of modern degenerative disease. Barry Groves relies heavily on evidence from respected scientific journals to explore why this has been the case and to expose the main culprit. He refers to that culprit as "healthy eating," eating according to the USDA food pyramid that relies heavily on grains and the associated politically correct nutritional advice warning against traditional foods full of saturated fat. He includes a quote from Dr. T. L. Cleave which sums up the insanity very nicely: "For a modern disease to be related to an old-fashioned food is one of the most ludicrous things I ever heard in my life."

Beyond bad advice from the experts, there are other factors working against modern civilization. Under European Union legislation it is illegal to force pharmaceuticals to publish negative trial results. In the USA, FDA-approved drugs inflict a death toll similar to what would be expected if a nuclear weapon were detonated in a populated area each year. Another well-known factor would be the toxic effect of big industry on the environment.

Groves comments on the amazing lack of education among many experts. He recounts a telling conversation with a dietitian. When asked why the British Dietetic Association recommended five servings of fruits and vegetables per day, her answer was because this represents healthy eating. After being asked again what the basis for that was, she said it was government advice. She was asked yet again to identify the source of

the advice. Her response: "It's healthy eating." But it gets better. Since that line of questioning was going in circles and he knew that the British Dietetic Association based its recommendations on the Framingham study, he asked her a question about that study. Her answer was, "What's the Framingham Study?"

Barry Groves spends a lot of ink on the evidence that a largely grain-based diet is responsible for increased risk of modern disease. I was intrigued by the discussion on vitamin C. Apparently a high intake of grain and carbohydrates increases the need for vitamin C. Back before British sailors became known as limeys they did not all suffer from scurvy. The ones who ate the most biscuits were the ones who had problems.

For the veteran of the Weston A. Price Foundation, there are no bombshells in this book. But even if you are familiar with most of the subject matter, you will enjoy *Trick and Treat* a very well written and interesting book. If you are new to the foundation, this book would make a good primer. Few books are perfect and I found one or two details to disagree with—for example, cyanocobalamin is not a safe or useful form of vitamin B₁₂—but his treatment of subjects like fats, which most experts get wrong, is very good. Thumbs up for this book.

Review by Tim Boyd

ERRATA

SUMMER 2008: In a letter form John Goldmaker, page 5, the correct location for the Toronto Eaton Center is Fort York, in Canada, not New York, as stated.

Fall 2008: In the article on the busy school-teacher, page 51, the author was incorrectly listed as Alison Tyler. The author of the article is Lynn Razaitis, our chapter leader in Atlanta, Georgia. Apologies from your embarrassed editor!

Beyond bad advice from the experts, there are other factors working against modern civilization.

Tim's DVD Reviews

The World According to Monsanto

by Marie-Monique Robin Available in segments on YouTube.com

Monsanto's motto is "to help farmers around the world be successful, produce healthier foods, better animal feeds and more fiber, while also reducing agriculture's impact on our environment." As this video begins, one farmer in Iowa seems grateful for Monsanto's help. He was growing Roundup Ready soybeans. He only needed two applications of Roundup to kill all the weeds for a year, greatly reducing the labor needed. After less than eight years of experience he was calling the system "sustainable."

The viewer is then taken on a trip around the world to listen to farmers, experts and others who don't seem quite so grateful, such as the residents in Anniston, Alabama, which was made almost uninhabitable by PCBs courtesy of Monsanto. Farmers in the Midwest talked about how hired goons from Monsanto intimidate and destroy livelihoods with false accusations of reusing patented seeds. Small farmers in India have been driven to rioting and suicide due to poor cotton crop yields from Monsanto's Bt cotton.

Farmers in the heart of Mexico have carefully preserved their own corn seed from one year to the next. They never buy seed but use their own heirloom seed. They didn't look too grateful when they found transgenic contamination in their crops. Neither did South American farmers

Interviews of certain government officials were particularly intriguing. According to James Maryanski, the decision to regulate GMO food the same as other food was a political decision, not a scientific one. Maryanski was head of the biotech division of the FDA at the time the decisions were made. When asked how the FDA knew that GM soybeans, for example, were safe, his answer was, "It's based on all the data that

the company [Monsanto] provided to FDA, that was reviewed by FDA scientists. And so it's not in the company's interest to try to design a study in some way that would mask results."

Monsanto has been found legally guilty of false advertising in two separate countries. Mr. Maryanski is quite the trusting soul, bless his heart. When trying to explain the principle of substantial equivalence he said, "What FDA was saying was if you introduce a gene into a plant, that gene is DNA and we've consumed DNA. We have a long history of consuming DNA. We can establish that that is GRAS [Generally Recognized as Safe]."

Despite the FDA's assurances that anything with DNA is safe, I don't plan to put that to the test with hemlock anytime soon. This THUMBS UP video is jammed with two hours of disturbing information, interviews with interesting people like Jeffrey Smith (author of *Seeds of Deception*), and a pretty good guess as to what Monsanto's real goal is.

No MSG by CBS 60 Minutes Produced by Grace Diekhaus First Aired November, 1991

This is a Google Video that brings Ed Bradley back from the grave to tell us about MSG. He quickly runs through a long list of foods on the store shelves containing MSG. It might be quicker to list foods that don't have it!

One doctor interviewed makes the point that there can be a wide range of symptoms associated with MSG reactions—headaches, heart palpitations, asthma, etc. Another doctor has done research indicating that MSG is especially hazardous to children and can cause brain damage. (The industry claims to have removed MSG from baby food, but it is still there in the form of hydrolyzed protein.) But Michael Taylor of

MSG is especially hazardous to children and can cause brain damage.

Tim's DVD Reviews

the FDA says there is no point in alarming the public for no reason. The FDA maintains that MSG is safe in spite of all the studies that say otherwise.

Bradley checked with several major food producers including Heinz, Accent, Lipton, Progresso and Campbell's. None was interested in commenting. Then he went to the Glutamate Association, which promotes use of MSG. Their comment was, "There is nothing wrong with MSG. It's perfectly safe to use." They declined to say anything on camera, however. They did provide a list of five doctors to consult. Ed Bradley did interview one of them, an allergist, on camera. Dr. Fred Atkins wanted to make clear that he does not represent the Glutamate Association. He went on to say he knows of no use or benefit for MSG other than a flavor enhancer. He was also quite clear that he believed more studies should be done. Apparently that is as close as the Glutamate Association can get to finding an enthusiastic endorsement from the medical profession. Even the food industry estimated that 2 percent of the population has a problem with MSG. In 1991 that small percentage translated into about five million people. I give 60 Minutes a thumbs up for this piece. They covered the basics well and the documentary is still as relevant today as when it was produced.

Achieving Real Health

by Dr. Pete Hilgartner

Dr. Hilgartner starts off this DVD by putting America's health in perspective. The United States ranks 37th or lower, depending on which list you look at, in longevity. Cancer is growing fastest among children ages one to five years old. Medical intervention is the fourth leading cause of death. One hundred and twelve million people are on some psychotropic drug. The current generation of children may be the first to be outlived by their parents.

Those who have been around WAPF for a while and are familiar with our principles will know most of the information on this DVD. We get a good overview of health principles and words to live by.

There are a number of good points to take away. For example, if doctors are really doing their jobs well, they will each their patients how to get along without them.

Hilgartner also points out that the mind and general attitude have more control and influence over cellular activity and health than most people

NUTRIENT DEFICIENCIES ON A VEGETARIAN DIET by Chris Masterjohn Audio recording available from Wolf River Naturals, www.wolfrivernaturals.com

Those who have been with us for any length of time will recognize the name Chris Masterjohn. You will remember from his articles in previous journals that he digs into the nuts and bolts of nutrition. This MP3 audio (1 hour 54 minutes) contains plenty of nuts and bolts. Some people like that, some don't. I'm an engineer, so I like it. Having read several of his articles and listening to him speak at conferences and on recordings, it is clear he has a razor sharp intellect. He starts off the lecture by relating his personal history with vegetarianism and near veganism, which illustrates that even the brightest people were young and stupid like everybody else at some point. His experiment with vegetarianism came to a crashing halt when he was confronted with twelve cavities, two root canals and regular panic attacks (that's just the short list). Interestingly, red meat stopped the panic attacks in a matter of weeks.

After a quick review of Weston Price's work, it's time for details, from vitamin A to zinc. Vitamin A is important for a long list of functions and one of the early signs of a deficiency is poor night vision. Vitamin A and D need to be properly balanced to be effective and by themselves are toxic. Proper mineralization requires not only proper minerals, but fat soluble vitamins A, D, K and protein. B vitamins need to be balanced and in the right form. Most vegetarians know that they don't get B_{12} from vegetables and need to supplement. What they don't know is vitamin B_{12} supplements are usually in the form of cyanocobalamin. Mr. Masterjohn suspects that form is ineffective because it contains cyanide. The human body detoxifies cyanide by combining it with cobalamin. He explains why all these critical vitamins are hard to get in a vegetarian diet and what the best sources are. Powerpoint slides were obviously used in the lecture but are quite invisible in the audio, so those who may be frustrated by that should beware. Still, the lecture is easy to follow and most educational. A big thumbs up for this one.

Tim's DVD Reviews

realize. He refers briefly to the pioneering work of Dr. Bruce Lipton on that subject.

Dr. Hilgartner lists seven dynamics for good health. They are genetics, structure, nutrition, exercise, rest, attitude and energetics. He goes into some detail in all of these, especially nutrition. He has another list of seven things that should be followed in nutrition. A very good first point on the list is not to fall for the conventional wisdom against saturated fat. Other things on the list are to eat live food, avoid hydrogenated food, avoid high-fructose corn syrup, avoid aspartame, and avoid MSG.

For those looking for detailed exercise tips there is a companion DVD called *Spinal Hygiene*. Thumbs up for this video.

The Cost of Corn-fed Cattle
by Matt Rivera
reporting for the Wall Street Journal
Video link: http://link.brightcove.com/services/
link/bcpid452319854/bctid1667996405

This online video (just 3 1/3 minutes) starts off at the Nissley Brothers Ranch in southern Pennsylvania. The main point of the story is about how the economics of feedlot operations

are getting more difficult and what ranchers are doing about it, the main one being finding ways to get by on cheaper feed. One might wonder, with some fear and trepidation, what are these cheaper options that are being used? That question is answered right up front. They are mixing corn silage with other fillers. Those fillers are potato chips and a chocolate blend that includes cocoa shells, M&Ms® and byproducts from Hershey and Mars. No, I'm not joking.

The reporter then quickly points out that cows don't actually feed on junk food naturally, but prefer grass. We are then transported one hundred miles north to a farm that practices rotational grazing. The two approaches are compared and the pros and cons discussed. It takes longer for grass-fed cattle to reach mature weight and requires more land. Less than 10 percent of cattle in the U.S. are grass-fed. On the other hand, grass-fed is more nutritious and doesn't need petroleum-based fertilizer for all that corn. This video presents both methods without really passing judgment on either one, but all the key facts are there for a person to make an informed choice. It is surprisingly good for something from the mainstream. I give it a thumbs up.

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.

CHOLESTEROL – VILLAIN OR HERO? by Chris Masterjohn Audio recording available from Wolf River Naturals, www.wolfrivernaturals.com

Anyone who knows the medical industry knows it considers cholesterol public enemy number one. Anyone who knows the Weston A. Price Foundation knows we strongly disagree. If you don't know why and you want to, get this MP3 audio. One hour and 46 minutes later, you will know why. Mr. Masterjohn starts off fast by introducing us to Smith-Lemli-Opitz syndrome (SLOS), a genetic disorder in which the victim is unable to produce enough cholesterol for normal growth and development. Symptoms include failure to grow, autism, hyperactivity, deformities, increased risk of suicide and so on. The treatment, naturally, is to eat cholesterol.

Masterjohn moves on to explain why different people can look at the same studies and come to different conclusions. The Framingham study is a good example. He examines a well-known graph which was incorrectly done in a way that is very misleading. Rabbit studies are also not convincing because rabbits are not good models of human metabolism. Ancel Keys' Six-Country Study is a good example of deception by cherry-picking. A few other highlights include a mention of the *Business Week* article based on recently released studies indicating that statin drugs are ineffective at preventing heart attacks. Masterjohn also discusses the well-documented conflict of interest at the FDA. There are a few moments where the listener may wish it was possible to see the slides he refers to but this easily rates a thumbs up. This recording will help cure any cholesterol phobia you may be suffering from.

Growing Wise Kids

THE JOYS OF EXPANDING YOUR FAMILY AND STAYING SANE IN THE PROCESS By Jen Allbritton, CN

Being a parent is the most fulfilling, rewarding and sometimes frustrating job on the planet. While the smiles, giggles, cuddles and outrageous quips can far outweigh the more challenging moments of child rearing, adding

on daily traditional food prep can be downright mind blowing!

The decision to expand your family is a daunting one, but what I can tell you is that for my family, it has been our best decision. Many of you with busy families may be asking, what are some ways to streamline? Is there any advice for those considering a larger family? Can I maintain my high food standards with more children? What follows are some lessons that I have learned from my short journey.



Happy growing family: Jen, Tyler, Tate and Chase Allbritton.

THE TRANSITION FROM ONE TO TWO

My husband, son Tate, and I were a happy family of three, going with the flow in our daily routine of enjoying whole food meals, outdoor adventures and being with each other. While my husband and I always knew we wanted a family, we never defined the exact size, and since we are blessed by growing our family through adoption, a little more thought goes into the "growing" process. But the time had come to take the plunge.

The first thing I did was to seek counsel from friends with multiple children. I asked, "How

in the world am I going to have time for another baby? One takes up so much energy already!" My friend Donna, mother of six and a follower of Weston A. Price principles, said something that made all my questions fade away. She said, "The

more children you have the more you grow!" She reminded me that having more children chips away at our selfish tendencies and everything just all falls into place.

So in January of 2008, we welcomed home our second son, Chase, the cutest doll-face we ever laid eyes on. Now looking back, I think, "What in the world was I worried about?" These two beautiful treasures bless myself and my husband daily. Now I can see that having children is a surefire way to help us as parents become our best possible selves. Children teach us to loosen up, view the world with awe,

give of ourselves in ways we never thought possible and to practice patience. . . over and over and over again.

As did our first son, Chase is also growing healthy and strong on the milk-based formula detailed in *Nourishing Traditions* by Sally Fallon. The preparation and additions I made to the formula changed a smidge since my description found in the FAQs on Homemade Baby Formula article (westonaprice.org/children/formula-faqs. html) published close to four years ago. See my

Children teach us to loosen up, view the world with awe, give of ourselves in ways we never thought possible, and to practice patience.

new process on page 66 for those of you making this "miracle milk" for your little ones.

STREAMLINING MYSELF FOR NUMBER TWO

One of the best things I discovered about the second time around is that I am much more relaxed. With our first, everything was new. Looking back, I find I was anxious about almost every detail with raising our first baby. But with number two, it has been like riding a bike after a long hiatus. It comes back quickly and it feels as though I can fully embrace the preciousness of cuddling my new baby who smells like heaven, without this little voice in the back of my mind wondering whether I should be doing something differently.

Also, things don't bother me as much. Big deal if the dog licks the baby's face or he is on a floor that hasn't had its daily sweep—keeping things too clean is not good for their immune strength anyway (see sidebar Go Easy on the Cleaning).

The bottom line is: children are small for such a short time and pretty resilient and forgiving. I am reminded of this daily as my fouryear-old becomes more of a little boy and less of a preschooler. Savor each moment; it truly will be over before you know it!

STREAMLINING IN THE KITCHEN

Home life becomes a little more hectic with more children, and kitchen time is definitely reduced. Yet, every bite of food is still an investment in our family's health. So once I knew Chase was coming, the first step I took to help prepare myself for less kitchen time was to create a binder of our favorite quick meals.

There are four sections—breakfast, lunch, dinner, and snacks/treats. Each section has ten or fewer recipes: my no-fail, everyone-loves, large batch, quick recipes (well...as quick as cooking from scratch can be).

Then I set my sights on filling my freezer with as many pre-made goods as possible—properly prepared cereals, breads and soups. I also stocked up on the non-perishable supplies for our favorite dinners so I would not have to travel to the store for more than fresh produce for a while. I made extra items, like ketchup, and actually purchased a few products that I decided to take off my homemade list for a few months, such as mayo (Wilderness Family Naturals, www. wildernessfamilynaturals.com, has a wonderful soy-free, coconut oil-based product) and sauer-kraut (Rejuvenative Foods has a yummy line of raw fermented products).

I kept up with the traditional food basics. For example, I continued to serve a raw animal food at each meal. The easiest and most nourishing of these is raw milk (cultured is terrific) from pasture-raised cows or goats. We remained faithful to our daily dose of cod liver oil and high-vitamin butter oil, which keeps the family's nutritional baseline in check and offers stellar infection protection.

Every morning I served a hardy breakfast, but I simplified things a bit. I soaked a double

We remained faithful to our daily dose of cod liver oil and high-vitamin butter oil, which keeps the family's nutritional baseline in check and offers stellar infection protection.

CARROT HASH

2 cups sausage meat

2 medium onions, sliced thin

2 tablespoons butter

1 1/2 cups small pieces liver (milder-tasting chicken livers work well)

1 1/2 cups finely diced carrots

1 cup chopped potatoes (optional)

1/2 teaspoon salt

1/4 teaspoon pepper

Cook sausage meat in heavy skillet. Remove from pan and cook onions in same fat until golden. Strain fat, return 2 table-spoons to the pan and add butter. With cover on skillet, slowly cook liver and carrots together, along with optional potatoes. When the carrots are soft, return the sausage and onions to the pan and add the seasonings. Cook until brown and crusty. Serve with a big spoonful of homemade sauerkraut and hot sauce (for those who can take it). Recipe found in *The Best Shaker Cooking* by Amy Bess Miller and Persis Fuller. Note: leftovers are tasty mixed into egg scramble.

Living a traditional food lifestyle goes beyond buying the right foods or having the best cookware.

batch of oatmeal that I re-heated for several days. Not that soaking oatmeal at night is difficult, but the point was to eliminate a few things from my to-do list that might just make my brain less full of "stuff," which is especially useful when I am running on sleep-fumes. On egg-veggie scramble day, I tripled the amount and we ate it reheated for two or three days wrapped up in a tortilla with a few slices of cheese tossed in.

When you have two minutes of "spare" time in the kitchen, use it to get things started for the next meal. This might mean taking out the pot you need to warm the leftover soup or chopping a few onions and carrots for the next meal. Knocking off even just a few steps to an evening meal can sometimes mean the difference between a relaxed kitchen experience and hair-raising craziness.

What is your family's favorite fermented or cultured food? Is it ginger carrots or apple butter? Maybe water kefir? Whatever it is, make a large amount before baby arrives or make it a priority to maintain just that one process during these busy days so you can include it with at least one meal a day.

Organ meats were still on my menu and on page 65, you will find one of my fast favorites—Carrot Hash—which makes a decent amount to last a few meals.

Finally, if you are going to have Dad stop off to pick up dinner on his way home, make it somewhere that uses fresh ingredients, such as Chipotle or the deli at the local health food shop. And if on one of your more frazzled days you end up throwing together almond butter and jelly sandwiches for dinner, do it with a guilt-free conscience; just try your best to get something raw and fermented into everyone's mouth before the meal is over and let it go!

STREAMLINING FAMILY LIFE

Cooking nourishing meals, making formula every day, and keeping up with the bare minimum of house maintenance is trying at times.

MY BABY-FORMULA-MAKING PROCESS

When making the formula for baby number one, I had different resources available to me (see my process for baby number one at westonaprice.org/children/formula-faqs.html). This time around I changed things a bit with the formula; here is what I did:

- Added colostrum (approximately 2 tablespoons liquid or 1/2 teaspoon powder) up to about 6 months of age (length of time is arbitrary, it really is up to you).
- Added about 1/2 to 1 teaspoon butter oil.
- Replaced approximately 1/2 cup milk with dairy kefir to give it a bit of a probiotic-boost and introduce the tart taste to baby.
- Replaced barley water for some of the water in the formula during teething time—I froze it into ice cubes and added it to the water/lactose/gelatin mixture while it was cooling. (See the article titled Questions and Answers from *Wise Traditions* Summer 2008 for more on barley water and teething.)

I didn't freeze the whey or cream this go-around. I made my own whey from kefir, which stays fresh in the fridge for up to six months, and my new farmer consistently has cream. Below is my general process that has worked wonderfully for me and Chase.

Fill a measuring cup with 2 cups water and scoop out 2 tablespoons (which leaves 1 7/8 cups). Pour half the water in a pot on the stove top on medium low heat and add the gelatin and lactose. Stir until dissolved. Meanwhile, pour the milk into a large mixing glass container (8-cup glass Pyrex works well) or right into a blender with measuring markers and add the remaining ingredients (oils, whey, powders, etc) except the coconut oil. Once the water/lactose/gelatin mixture is dissolved, pour in the rest of the water to cool it off a bit (and barley water cubes if using). Then add the coconut oil and allow it to melt completely. Pour the dissolved water/lactose/gelatin/coconut oil mixture into the glass container or blender with milk. Blend everything for about 3 seconds. I find that if I do not blend the formula the oils do not distribute evenly.

Then I pour the formula either into glass bottles (cap off) or a large canning jar and place them in the fridge. Once I take a bottle out of the fridge or pour a new bottle from my well-shaken jar of formula, I use a bottle steamer unit to take the chill off and melt the coconut oil enough so that it blends back in thoroughly.

But the best piece of advice I can give moms and dads is to be present! Find a way to have one parent stay home with your little ones. Of course, there are circumstances that make this impossible for some, who, I am sure are doing their best by their children. But if there is a way, it is worth every second. Not only will your kids benefit from hanging out more with their totally hip mom or dad, but living a traditional food lifestyle, I believe, ideally requires more time than can be allotted with both parents working or staying too busy outside the home.

To me, living a traditional food lifestyle goes beyond buying the right foods or having the best cookware; it also involves a way of life, an attitude about connection, family identity and community. By no means am I a philosopher, but I would venture to say that when Weston A. Price said, ". . . man's place is most exalted when he obeys Mother Nature's laws," he was speaking about more than dietary choices.

When I get too busy with commitments and out-of-the-house responsibilities, it has a negative impact on our family togetherness and meal quality. I am more frazzled and worn-out if I am gone all day and driving all over town doing this or that, so I have streamlined. For me, keeping life simple means very few activities outside the home. This allows me enough time to have the brain power to think about the next meal, scan some interesting articles about cooking and parenting after we have pored through the boys' top-ten read-aloud picture books, or take a spin around the train track. I have also become quite

the savvy Internet shopper to reduce my travel time and get some extra girl-time in through bulk purchasing with friends.

Living the traditional food lifestyle also includes growing and raising our own food, not only to save money and trips to the store, but also to bring our family closer to the source. It allows children to water the ground that will grow an eagerly anticipated vine-ripened tomato or experience the excitement of finding a freshly laid egg in a nesting box. We have eight backyard chickens (see my article titled Eat Your Eggs and Have Your Chickens, Too! from the Summer 2008 *Wise Traditions*) and just started our first raised garden bed (gardening at just shy of 8,000 feet above sea level has been intimidating). These grounding, life-sustaining home projects take time, but it is time well spent.

Are there some non-food areas you can streamline? Let's say you are a nut about keeping a clean house. Perhaps as a baby gift to yourself (or a collection taken from those wanting to give gifts), hire house cleaning help once a month for the first year after you bring baby home, or ask parents to chip in for the cost as their gift to the baby.

Is ironing your husband's work shirts not on your list of most favorite activities? Maybe take a friend up on her offer to help and send over some shirts to be ironed, or make a trade with someone with a casserole you can easily double up in the oven or perhaps with eggs from your backyard flock. Find those small things that you might be able to let go for a while, just until you

For me, keeping life simple means very few activities outside the home.

RAW MILK FORMULA AT NIGHTTIME AND FOR TRAVELING

For those first few months of nighttime feedings, here is a way to make it quick, easy and quiet. Keep all your nighttime bottles in a lunch-style cooler with some freezer blocks to keep them nice and cold. Before hitting the hay, plug in a small crock pot with water that will stay on all night. Before feeding baby, pop a bottle into the hot water for just a minute to take the chill off and melt the oils before feeding baby those middle-of-the-night bottles. This method has the additional advantage of eliminating the annoying beep of a bottle warmer.

As for traveling, while it is ideal to make the formula fresh daily and use it straight from the fridge, there are times when that isn't possible. I travel with the formula out of the house and in the diaper bag for hours without worry. I just take the chill off to melt the oils in my bottle warmer and put it in an insulated carrier to keep the temperature as constant as possible. Remember, raw milk doesn't go "bad" it just becomes sour, so the formula will be safe for baby to drink even if has been out for a while. When traveling overnight, I make a double batch, stock up a cooler with lots of ice and make sure I am going to a location with refrigeration. For longer vacations, I would make the choice to drive and bring the needed ingredients and either bring extra milk (freezing some on arrival to keep it fresh for later batches) or seek out raw milk at my destination by searching on www.realmilk.org or contacting the local WAPF chapter leader.

So for all of you readers out there contemplating the possibility of increasing the size of your family, I highly recommend it!

find your groove with food preparation and your new time budget.

I leave you with a story I came across a while back. A grandmother on a farm prepared the meals for her family. Just before the food was ready to be cooked or baked, Grandma would take a container out of the cupboard, open the lid and put a pinch of what was in the container into every dish she made. When she died, her family went through the cupboard. And when they found the container, they looked inside. It was empty—except for the word love, which they found written on a piece of paper.¹

Chills run down my spine every time I read that story because I am reminded of the kind of mom I want to be. Putting love, purposefulness and conscious attention into my family life and meal preparations will truly make a difference, but having the time and brain power to do it is often the trickiest part. Believe me, it can be done...some days are easier than others, but it is possible.

So for all of you readers out there contemplating the possibility of increasing the size of your family, I highly recommend it! What better family than one such as yours that is striving to live this authentic, enriching life! As for me and

mine, is there another sweet blessing from above in our future? Definitely!

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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GO EASY ON THE CLEANING

Not that I am a horrible housekeeper, but given the choice, I will gladly forgo dusting when there are things to do in the kitchen. And there is proof that my preference is healthier for my children, too! Compared to a generation ago, allergic symptoms in general are much more commonplace today. We are seeing more environmental allergies, food allergies and conditions such as asthma, eczema and hay fever.² But why?

The "hygiene hypothesis" is the best idea to date and has to do with a child's exposures during his first few years of life. The immune system is designed to identify and handle invading germs; however, if things are "too clean," the immune system in effect "re-sets" itself so that it is more likely to react abnormally to otherwise innocent substances in the environment and diet.³ What this means is that when a baby's immune system is not properly trained to become resistant, some immune cells are more likely to misbehave and turn their attention to harmless proteins and common substances in the environment.

The dangers of being overly clean are confirmed with children and pets. Children living on farms and exposed to animal germs have a lower prevalence of allergies compared to those in the city.⁴ Similarly, many children exposed to dogs and cats early in life tend to have fewer allergic conditions than those without pets in the home.⁵

One last "germ" theory has to do with the good bacteria called probiotics that reside in our intestinal tract. A recent study published in *The Archives of Disease in Children* saw significant improvements in a group of 18-month-old, eczema-affected babies given probiotics. Eczema is closely connected with allergies. The researchers believe the improvement was due, at least in part, to the probiotics "re-training" the children's immune systems. Not only do people tend to consume too few probiotic-rich foods—yogurt, kefir, raw cultured vegetables—but many common lifestyle habits destroy our vital intestinal bacterial ecosystem, such as the consumption of sugars and refined foods, use of oral antibiotics or ingesting them second-hand through animal products, and the intake of pesticides and other chemicals found in our foods and water supply.



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Mark McAfee and daughter Kaleigh



Tim Wightman, President, The Farm-to-Consumer Foundation







Only at the WAPF conference! A cod liver oil tasting sponsored by Green Pasture Products.

Soy Alert!

AN OPEN LETTER TO PRESIDENT-ELECT BARACK OBAMA From Sally Fallon, President, the Weston A. Price Foundation

November 16, 2008



Dear Mr. Obama,

Congratulations on your recent victory in the American presidential elections. As the president-elect, you have many issues to consider as you prepare to take office.

One issue I would urge you to focus on concerns a grave injustice taking place in the prisons of your home state, namely, a prison diet that is slowly killing the inmates assigned to the Illinois Department of Corrections. This is a diet based largely on soy protein powder and soy flour. As you stated on last night's 60 Minutes program, America does not condone torture. I think you would agree that what is happening in the Illinois prisons is a form of torture.

Soy protein and soy flour are toxic, especially in large amounts. The US Food and Drug Administration lists 288 studies on its database demonstrating the toxicity of soy. Numerous studies show that soy consumption leads to nutrient deficiencies, digestive disorders, endocrine disruption and thyroid problems.

Even the most ardent supporters of soy, such as Dr. Mark Messina, warn against consuming more than about 20 grams of soy protein per day. But the inmates in Illinois are getting upwards of 100 grams per day—beef and chicken by-product mixtures containing 60-70 percent soy, fake soy meats and cheese, even soy added to baked goods. The soy products are produced by Archer Daniels Midland, which contributed heavily to the campaign of Governor Rod Blagojevich.

The change from a diet based largely on beef to one based on soy occurred in 2003, when Mr. Blagojevich began his first term as governor.

The national office of the Weston A. Price Foundation has heard from dozens of inmates begging for help. Almost all suffer from serious digestive disorders, such as diarrhea or painful constipation, vomiting, irritable bowel syndrome and sharp pains in the digestive tract. One reason for these problems is the high oxalic acid content of soy—no food is higher in oxalic acid than soy protein isolate, which can contain up to 630 milligrams per serving, at least six times higher than the amount found in typical diets.

Oxalic acid is associated with kidney stones, but the sharp crystal deposits can form in almost every tissue in the body—in the heart where they can stop electrical signals; in the bones where they can displace bone marrow cells, leading to anemia or immune deficiency; in the brain where they can impair the transmission of signals; and in the skin where they can cause fibromyalgia.

Other problems reported by the inmates include acne, hair loss, depression, lethargy, allergies, heart arrhythmias, passing out after soy consumption, frequent infections and constant feeling of cold. Many of these conditions are symptoms of low thyroid function. The estrogen-like compounds in soy are known to depress thyroid function.

When the prisoners seek medical treatment, they are told that soy does not cause the problems they are experiencing. Even those who vomit or pass out immediately after eating soy cannot get an order for a soy-free diet. They are told:

office of the Weston A. Price Foundation has heard from dozens of inmates begging for help. Almost all suffer from serious digestive disorders.

The national

Thanks to Kimberly Hartke, Media Relations, the Weston A. Price Foundation for distributing the above letter to the media and every single lawmaker in the state of Illinois. We encourage our readers to distribute this letter, posted in electronic format at westonaprice.org, to local newpapers and other media. Then contact Kimberly at (703) 860-2711 or cell (703) 675-5557, kimberly@hartkeonline.com, to follow up with a phone call.

The Weston A. Price Foundation has engaged the services of attorney Gary Cox to file for a permanent injunction against the serving of soy products in the Illinois prisons.

"If the soy disagrees with you, don't eat it. Buy food from the commissary." And since most of the inmates cannot afford to purchase food from the commissary, they are faced with a choice of serious health problems or starvation. Several have had sections of their colons removed when a simple return to a nutritious, soy-free diet would have solved the problem. One inmate who passes out whenever he consumes soy was given a pacemaker.

Several inmates have filed lawsuits. One inmate has been subjected to illegal and life-threatening retaliatory actions as a result of his filing two lawsuits claiming inadequate medical care. Pro bono legal help is urgently needed for these cases.

According to law, prisoners are entitled to "nutritionally adequate food" (Ramos v Lamm, 639.2d 559, 1980). According to Illinois law, "Infliction of unnecessary suffering on prisoner by failure to treat his medical needs is inconsistent with contemporary standards of decency and violates the Eighth Amendment" (Key Note 7. Criminal Law 1213).

The justification for the switch from beef to

soy is to save money. But according to one court case, "A lack of financing is not a defense to a failure to satisfy minimum constitutional standards in prisons" (Duran v. Anaya, 642, Supp. 510 (DNM 1986), page 525, paragraph 6).

And it is not clear that the soy diet is saving the state of Illinois any money, not when you consider the greatly increased medical costs that have ensued, and the risk to the state of costly lawsuits. The state of Virginia provides grass-fed beef to inmates at no cost to the state. Low-risk prisoners raise the beef at Sky Meadows State Park. The surplus is sold to the Pennsylvania Department of Corrections, resulting in a net gain for the prison budget. All over the country prisons are instituting creative ways to save money while teaching inmates new skills, including gardening, animal husbandry, beekeeping, food processing, composting and recycling. Only the state of Illinois has chosen to poison its prisoners instead.

It is said that a nation is judged on the way it treats its prisoners. The American prison system is predicated on the premise that criminals can be rehabilitated. To feed prisoners a diet that can permanently ruin their health robs them of any opportunity for rehabilitation, renders them unfit for normal life when they are released, and will impose an unnecessary burden on the state's medical services. It constitutes a medical experiment and amounts to cruel and unusual punishment, which must be stopped.

Mr. Obama, you can stop this cruel soy-feeding experiment with one phone call. I urge you to be that champion of fairness and justice that you promised during your campaign by making that call.

Sally Fallon, President, The Weston A. Price Foundation

BACK ISSUES OF WiseTraditions AND INFORMATIVE LITERATURE

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Summer 2005	Wrong Advice in Baby Books; Homemade Formula FAQs; Vaccinations; Reproductive Health; Baby Food
Summer 2006	Modern Bread; Recovery from Celiac; Naked Oats; Cloth Diapers; Gluten-Free Recipes; Sunburn
Fall 2006	Is Vitamin D Toxic? Sunlight and Melanoma; Saturated Fat Attack; Varicose Veins; Picky Eaters
Winter 2006	History of Organic Agriculture; Making Our World GM-Free; Vitamin D for Infants; Legumes
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Winter 2007	Children's Issue: Gut and Psychology Syndrome; Vitamins for Fetal Development, Traditional Remedies
Spring 2008	Vegetarianism and the Environment; Vegetarianism and Nutrient Deficiencies; Traditional Diets in Russia
Summer 2008	History of Mercury in Medicine; Toxic Metal Cleanse; Agriculture in Ancient Rome
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NAIS Update

THE GOVERNMENT'S DOUBLESPEAK ON THE NATIONAL ANIMAL IDENTIFICATION SYSTEM By Judith McGeary

The USDA's implementation of the National Animal Identification System, or NAIS, has taken government doublespeak to a new level. For newcomers, NAIS is an agribusiness-government plan to require every person who owns any livestock animal to submit to extensive government regulation and surveillance. The NAIS would cover anyone who owns even one chicken, horse, cow, sheep, goat, pig, turkey, guinea, elk, deer, bison, or other livestock or poultry. The first step is registration of one's property with the state and federal governments. The next phases of NAIS call for tagging each animal with a 15-digit identification number, in most cases using electronic identification, and reporting their movements to a database within 24 hours. Large factory farms would be able to avoid most of the labor and expense by using group identification. But the burdens for small farmers, in both time and money, would drive many grass-based farmers out of business, and consumers would lose much of their access to nutrient-dense animal foods.

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 BS in biology from Stanford University and a JD 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

Judith McGeary

HOW DO YOU DEFINE "VOLUNTARY?"

The USDA's original plan for NAIS, released in May 2005, called for the program to become mandatory after an initial voluntary period. In fact, the first two stages—premises registration and animal identification—were supposed to become mandatory in January 2008, followed by animal tracking in January 2009. When a public outcry ensued, the USDA changed the timeline and called for "100% voluntary participation," an absurd concept. Chastised yet again by animal owners, the USDA then stated, in November 2007, that NAIS was "voluntary at the federal level." At the same time, the USDA issued guidelines for funding states that implemented NAIS. The USDA stated that it would fund mandatory

state programs, data mining efforts and other non-voluntary methods of getting people into NAIS. Throughout this process, USDA officials have made statements along the lines of: "People are overreacting. You shouldn't rely on what the documents say, you should ask us what we meant."

In the course of the last two years, the USDA's mis-use of the word "voluntary" has been amply demonstrated. Wisconsin and Indiana have openly mandated premises registration, while other states have used creative coercive tactics. Tennessee and North Carolina state agriculture departments denied droughtstricken farmers disaster relief if they were not registered in NAIS. Children were kicked out of the Colorado state fair for not being registered. Ranchers in Idaho found themselves registered in NAIS without their knowledge or consent after filling out paperwork to keep their rights to their brands, while horse owners in New York were similarly registered after taking their horses in for routine disease testing.

The USDA took another step along its twisted path this fall, issuing a memo to its Veterinary Services Management Team that requires NAIS premises registration for various disease program activities. The memo includes activities such as vaccinations, testing, and applying official ear tags, for programs for every livestock species, ranging from brucellosis to scrapies to equine infectious anemia. Under this memo, people who refuse to have their farms registered would be registered against their will. Animal owners who take government-required steps, such as testing and vaccinating their animals, would find themselves enrolled in the NAIS premises registration database with or without their consent.

USDA has failed to follow any of the admin-

istrative procedures required to create enforceable regulations when it issued this new step in NAIS. And, indeed, even the proponents of NAIS have apparently realized the lack of authority for this latest step. The U.S. Animal Health Association, while supporting a mandatory NAIS, has passed a resolution calling on the USDA to show its legal authority for the memo. The American Horse Council, another NAIS proponent, has tried to reassure horse associations that the memo doesn't really mean what it says. The AHC claims the memo was about what would happen in the future—despite the clear, present tense of the memo's language. Some USDA field offices and state animal health authorities have claimed ignorance of the memo's contents, while others have said that it will not be enforced.

Regardless of its implementation or enforceability, however, the memo reveals USDA's plan for NAIS. Here are some excerpts:

- USDA is requiring NAIS premises registration "as the sole and standard location identifier" for activities relating to any disease regulated through the Code of Federal Regulations, for emerging or re-emerging disease, and for foreign animal diseases (p.1);
- People who refuse to voluntarily register their properties in NAIS will be registered against their will: "If the person responsible for the premises <u>chooses not to</u> complete the form to register his/her premises, <u>either</u> the animal health official or an accredited <u>veterinarian will collect</u> the defined data fields." (p.2);
- The memo applies to federal animal health

- authorities, state animal health authorities, and private veterinarians who are accredited for federally regulated diseases (p.1);
- Any veterinarian who is accredited for a federally regulated disease is subject to the USDA's edict to involuntarily register his or her clients: "A PIN is required for activities performed at a premises by a State or Federal animal health authority or an accredited veterinarian for any disease that is regulated through Title 9 of the Code of Federal Regulations." (p.4);
- The listed disease programs for which a PIN will be required include programs that cover every species of animal, from tuberculosis and brucellosis programs in cattle to the scrapie program for sheep and goats to equine infectious anemia in horses (p.5); and
- The activities that will result in being registered in NAIS include vaccinations, diagnostic tests, certifications (other than certificates of veterinary inspection), and the application of official eartags or backtags (p.5).

As they have done throughout the implementation of NAIS, USDA officials and pro-NAIS industry groups are yet again saying: "We didn't really mean what the document says." First it's mandatory, then it's voluntary, then it's up to the states, then the states have to do what USDA says, then it's mandatory again, then it's voluntary. Over and over, the USDA issues documents, and then claims that the public is overreacting to what those documents clearly state. It is long past time for Congress and the President to rein in this agency.

People who refuse to voluntarily register their properties in NAIS will be registered against their will.

LAWSUIT AGAINST USDA AND MICHIGAN DEPARTMENT OF AGRICULTURE

In Michigan, the USDA and Michigan Department of Agriculture pushed ahead with the second stage of NAIS. Michigan has an active tuberculosis (TB) program, due to a recurring TB problem that most government authorities attribute to continued re-infection from wild animals. But USDA decided that the answer was to change the form of identification used for cattle. Under pressure from USDA, and using federal funding, the MDA made a policy determination in 2007 that the only form of identification that would be allowed under its existing tuberculosis program was NAIS-compliant radio frequency identification devices (RFID). And since such RFID tags are only sold to people who have registered their property in NAIS, the agency effectively mandated the first two stages of NAIS without any new statutes, rules or opportunity for public involvement. The Farm-to-Consumer Legal Defense Fund filed suit against USDA and MDA in the district court in the District of Columbia in September of this year. USDA responded with a motion to dismiss, disclaiming responsibility for the implementation of NAIS in Michigan. The parties are in the process of filing briefs on the issue. For more information on the Fund and the lawsuit, go to www.FarmtoConsumer.org.

In addition to seeking redress from Congress, the opposition to NAIS is seeking relief from state legislatures. Since the USDA's preferred method for implementing NAIS is through state legislatures, state laws barring a mandatory or coercive NAIS could significantly constrain the program. Four states have already passed laws that create roadblocks to NAIS. Arizona, Kentucky, Missouri, and Nebraska have all passed laws forbidding their state agencies from mandating or forcing anyone into NAIS. Kentucky's bill contains important additional provisions addressing coercive measures. An informal coalition of organizations is currently working on more bills in states across the country, and the 2009 legislative session promises to be busy.

The exact kind of bill that will be introduced varies from state to state. That's because each state is starting from a different position. In some states, pro-NAIS forces pushed through legislation to create a mandatory NAIS before most people were even aware of the issue. In those states, people face the prospect of their state agency implementing a mandatory program whenever it feels like it! In other states, the pro-

NAIS forces weren't as organized, there is no law authorizing NAIS, and therefore the grassroots community has a little more breathing room. Each state also differs in the strength of its organics and local foods movement, as well as the strength of the pro-NAIS forces (the feedlots and meat packers, the technology companies and the industrial agriculture associations). Depending on the existing laws and the strength of the pro-NAIS forces, the people of each state have to make a decision about the best strategy for their state at a specific point in time. Each state, however, is a critical part of this fight!

CONCLUSION

Stopping NAIS is a long-term battle, and winning it will require the efforts of both consumers and farmers all over the country. The Weston A. Price Foundation sends out action alerts at many of the critical moments, and it's important that everyone take action in response! You can also find out more information on what is happening at the federal level and in states across the country at www.FarmAndRanchFreedom.org and www.LibertyArk.net. If you are willing and able to devote a little more time to helping in the fight, there are numerous things you can do to: (1) put out educational materials at your local farmers' market, feed store, or riding stable; (2) send a letter to the editor of your local newspaper; (3) have a face-to-face meeting with your state legislators, and ask them to support a bill to stop NAIS; (4) organize a public meeting to educate your community. You don't need to do all of these things. What's important is to do something! You can find materials to help with all of these efforts at www.farmandranchfreedom.org or by calling 866-687-6452.

A VISIT TO DRAKES BAY OYSTER FARMS

Participants on the annual Wise Traditions farm tour had the pleasure of visiting Kevin and Mary Lunny's farm in the heart of the gorgeous Point Reyes National Seashore. We were fascinated to learn how oysters are raised with great care for the sustainability and conservation of this area. Our appreciation of the oyster grew as we learned of their ability to process as much as 55 gallons of water per day, filtering out pollutants and either eating them or shaping them into harmless packets deposited at the bottom of the bay. Drake's Estero has been in commercial oyster production for nearly 100 years and is the site of the last operating oyster cannery in California. It helps keep the Drakes Estero healthy for a wide variety of flora and fauna and is a sustainable, environmentally friendly food source.

Drakes Bay Oyster Farm needs your help. The National Park Service plans to shut down the historic farm, but your participation can help protect this sustainable shellfish. Visit www.alsamarin.org to support the campaign to save the farm.



LEFT: Kevin Lunny explains the fine points of oyster cultivation

RIGHT: A WAPFapproved sandwich, containing artisan cheese and a generous portion of butter, enjoyed by farm tour attendees.



CORNUCOPIA INSTITUTE FILES ACTION SEEKING ALMOND PASTEURIZATION DOCUMENTS Farm Policy Group Says Almond Board Withholding Key Research

Cornucopia, WI – The Cornucopia Institute has filed a Freedom of Information Act request with the United States Department of Agriculture and the Almond Board of California seeking public documents justifying the merits of the almond pasteurization rule and the science supporting it.

Since the passage, in spring 2007, of the controversial rule mandating pasteurization of raw almonds grown in California, policy analysts at The Cornucopia Institute have made numerous requests for public information from the Almond Board of California (ABC). Repeatedly, the Almond Board has failed to turn over documents they allege prove the effectiveness of pasteurization and the comparative nutrition, quality, and safety of pasteurized almonds and raw untreated almonds. Some in the industry, family-scale growers, organic farmers and handlers, retailers and consumers have vigorously protested the USDA-imposed pasteurization mandate of raw almonds and questioned whether it is based on sound research.

"We have taken this step because we have been frustrated by the Almond Board and the USDA's unwillingness to share the science behind the rule, the science that purports to show that treatment with either a toxic fumigant or steam heat is safe and does not affect the almond's taste and nutritional qualities," said Will Fantle, research director for The Cornucopia Institute, a Wisconsin-based farm policy group.

The Almond Board claims that the EPA, the FDA, and the ABC's own "Technical Expert Review Panel" have undertaken "extensive research" to evaluate the effectiveness and safety of propylene oxide (PPO), the toxic chemical approved for use with almond pasteurization. Furthermore, they claim that these tests have demonstrated that PPO effectively kills Salmonella and other harmful bacteria, and that almonds treated with PPO are safe for consumption. However, they have refused to reveal the results of these or any other tests, including the results of a \$1 million study commissioned by the ABC to assess quality degradation.

"If they have completed these studies, why won't they share this research?" asks Eli Penberthy, a policy analyst with Cornucopia. She notes that she has made multiple requests to the Almond Board asking for a number of their studies and research documents.

One explanation may be that the studies are incomplete or unfinished. Cornucopia has learned that at least some of the studies were still being conducted nearly a year after the raw almond treatment mandate was implemented on September 1, 2007. Additional research results assessing the shelf life, oil stability, flavor, texture, and appearance of treated almonds are also supposed to be available.

"We find it very troubling that the proponents of the almond treatment rule, who portray this as a food safety measure, still cannot produce the science and studies upon which the rule is supposedly based," said Penberthy. "The lack of data proves that the rule was passed prematurely and without sufficient review."

The Cornucopia Institute helped fifteen California almond farmers and raw almond wholesale handlers file a lawsuit on September 9 challenging the pasteurization rule. The lawsuit contends that the USDA lacked regulatory authority and acted illegally in implementing the almond pasteurization rule. Three more growers have signed on since then.

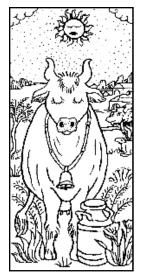
A Washington, DC, federal court will be ruling on the lawsuit, perhaps later this year. If successful, the raw almond treatment mandate would be overturned.

"Many family-scale farmers producing almonds and fresh fruits and vegetables are now having their livelihoods put at risk by a number of onerous 'technological fixes' that corporate agribusiness is looking to for solving food contamination problems," added Cornucopia's Fantle. "These draconian regulations might very well push out of business the highest-quality and safest farm operations in the nation and, in doing so, will shut out growing legions of consumers who are seeking out a higher quality and more nutritious food supply."

More information on the federal lawsuit and the almond pasteurization controversy can be found on the Almond Project at Cornucopia's web page, www.cornucopia.org. The Cornucopia Institute is dedicated to the fight for economic justice for the family-scale farming community. Through research, advocacy, and economic development, our goal is to empower farmers both politically and through marketplace initiatives.

MORE: Propylene oxide is so toxic that it is not even registered for use as a food processing agent in many parts of the world, including most of Europe, Africa, Asia, and Canada. The Environmental Protection Agency recognizes it as a carcinogen and cause of disease, and as a suspected toxicant of the liver and the gastrointestinal, immune, developmental, and respiratory systems.

Almonds imported into the U.S. are exempt from the pasteurization rule. This exemption has caused severe economic hardship for many domestic family farmers and organic almond producers.



A Campaign for Real Milk

RAW MILK UPDATES by Pete Kennedy, Esq.

Growing numbers of consumers who want to obtain raw milk these days can find a source without much trouble. That being said, there is a continuing campaign by state and federal governments to either eliminate or reduce producer access to consumers who want raw milk. FDA is at the center of the effort to effectively deny consumers their legal right to consume raw dairy products. This update begins with the latest development in FDA's attempt to completely shut down the interstate raw dairy sales of Organic Pastures Dairy Company, the nation's largest raw milk retailer.

CALIFORNIA: CIVIL SUIT AGAINST ORGANIC PASTURES

On November 20, 2008, the federal government, through the U.S. Attorney in Fresno, filed a civil complaint to permanently enjoin Organic Pastures Dairy Company (OPDC) and its CEO Mark McAfee from distributing raw milk and raw milk products in interstate commerce. The complaint alleged that OPDC was delivering misbranded food into interstate commerce because products labeled as pet food were being knowingly sold for human consumption.

The suit also alleged that OPDC was delivering new drugs into interstate commerce. Under the Federal Food, Drug and Cosmetic Act (FFDCA) any product is considered a drug if it is "intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease." Under the Act a new drug is any drug "the composition of which is such that such drug is not generally recognized, among experts qualified by scientific training and experience to evaluate the safety and effectiveness of drugs, as safe and effective for use under the conditions prescribed, recommended, or suggested in the labeling thereof."

The complaint charges that OPDC's website,

brochures and other promotional materials, as well as at least one website which has a "hot link" to OPDC's website, all contain claims that OPDC products can "cure, mitigate, treat or prevent various diseases" including, but not limited to, asthma, eczema, psoriasis and arthritis. According to the complaint, the health claims made by the dairy for its products would make it guilty of not filing a new drug application as required by the FFDCA.

The suit seeks to enjoin OPDC from "directly and indirectly introducing and delivering for introduction . . . into interstate commerce raw milk and raw milk products in any form." The attorneys handling the case for the federal government have made clear to the dairy that this includes OPDC's dairy products with colostrum. McAfee's position is that under federal law colostrum is neither milk nor a raw milk product but rather a dietary supplement not subject to the prohibition on raw milk and raw milk products for human consumption in interstate commerce.

The civil complaint is independent of the criminal investigation into OPDC [see *Wise Traditions*, Summer and Fall 2008 issues]. OPDC's attorney, Gary Cox (General Counsel for the Farm-to-Consumer Legal Defense Fund), continues to be in negotiations with U.S. Attorney's office in Fresno over a possible settlement in the criminal case.

WASHINGTON: DEE CREEK FARM

In December 2005, some shareholders in Dee Creek Farm's cow share program became sick from *E. coli O157:H7* [see *Wise Traditions*, Winter 2005/Spring 2006 issue for more details]. The Washington State Department of Agriculture (WSDA) linked the illnesses to the consumption of raw milk produced by the farm and severely punished its owners, Michael and Anita Puckett.

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.

The agency placed an embargo on the cows at the farm that lasted over a year, costing the Pucketts around \$15,000 in feed bills before WSDA finally gave the couple permission to slaughter the cows. In addition, the agency levied \$8000 in fines against the couple. It took two years for the Pucketts to resolve their case with WSDA.

Unfortunately for the couple, some of their shareholders were from Oregon. Not missing an opportunity to create a chilling effect on farmers producing raw milk, FDA was able to convince the U.S. Attorney's office for the Western District of Washington to launch a criminal investigation of the couple for violations of the Federal Food, Drug and Cosmetic Act (FFDCA) in the fall of 2007. Faced with indictment by a grand jury and worn out by the ordeal with the State of Washington, the Pucketts accepted a plea bargain from the U.S. Attorney proposing that each plead guilty to one count of distributing adulterated food in interstate commerce. The public defenders representing the Pucketts and the U.S. Attorney agreed on a sentence of a \$250 fine and a minimum of one year probation for each defendant.

At the sentencing hearing on September 5, 2008, Federal Magistrate Judge Karen L. Strombom rejected the plea bargain that had been struck, giving each defendant the following sentence: no fine, no probation, and six months to pay a mandatory \$25 court assessment fee. In pronouncing sentence on the defendants, the judge said their guilty plea was "sufficient punishment." She stated, "I don't see how we accomplish anything by having these two people put on probation. I just don't get it."

Nancy Tenney, the public defender representing Anita, had done research and found that the U.S. Attorney's office for the Western District of Washington had not taken on a single food adulteration case going back at least eight years. In the mid-nineties, when three children in that district had died (and hundreds of people had become sick) from consuming the undercooked meat from the Jack-in-the-Box food chain, this same office did not bring any criminal charges against the chain for causing the foodborne outbreak, despite a finding by the Washington State Department of Public Health that Jack-in-the-Box had clearly violated federal food safety standards by its practice of undercooking meat.

Judge Strombom saw the case brought by FDA and the U.S. Attorney for the unwarranted agenda-driven prosecution that it was. After three years of undeserved persecution and harassment by the state and federal government as well as by local media, the Pucketts had at last received some measure of justice. Hopefully, they will be able to carry on with their lives in peace. Today the Plunketts hold nine different permits from WSDA, including permits to sell raw milk and raw cheese.

NEW YORK: MEADOWSWEET DAIRY

On November 18, 2008, Albany County Supreme Court Judge John C. Egan, Jr. dismissed the petition of Meadowsweet Dairy, LLC, for a declaratory judgment that the LLC's distribution of raw dairy products to its members was not subject to state regulation [see Wise Traditions, Winter 2007 through Fall 2008 issues for background on this case]. In holding that the dairy was under the regulatory authority of New York State Department of Agriculture and Markets (NYS-DAM), the judge also denied Meadowsweet Dairy's motion for a preliminary injunction to prohibit NYSDAM from "conducting any further inspections, issuing any further search warrants, and taking any further administrative, civil or criminal actions against the plaintiffs" during the course of the litigation between the two parties.

The case turned primarily on whether the LLC members were to be considered as "consumers" under the law. Under state regulation anyone who sells, offers for sale or "otherwise makes available raw milk for consumption by consumers" is required to get a permit. The definition of "consumer" that Judge Egan adopted was so broad that even someone keeping a family cow would be required to obtain a permit. In ruling that the LLC members were "consumers," the judge found that Steve and Barbara Smith (the farmers and member-managers of the LLC) were required to obtain a raw milk permit. In addition, the judge found that the Smiths were required to obtain a milk plant permit if they wanted to sell dairy products other than milk. The milk plant permit would do the Smiths little good because it only allows the sale of pasteurized dairy products.

Judge
Strombom
saw the case
brought by
FDA and the
U.S. Attorney
for the
unwarranted
agenda-driven
prosecution
that it was.

The judge's ruling is ominous for those in New York who want to produce raw milk for a living. Inspectors for NYSDAM have been open about the department's desire to get rid of raw milk. The good news is there is a move underway to introduce a bill that would legalize the unlicensed, unregulated sale of raw milk by farmers direct to consumers.

CALIFORNIA:SB 201

On September 30, 2008, Governor Arnold Schwarzenegger vetoed SB 201 [see the Fall 2008 issue of *Wise Traditions* for background on this bill]. In vetoing the bill the governor gave short shrift to the tremendous support shown the bill in the legislature. SB 201 had passed unanimously (66 to 0) in the General Assembly and by a 31 to 4 margin in the Senate.

SB 201 would have given raw milk licensees the option of undergoing rigorous pathogen testing and maintaining an individualized HACCPP (Hazard Analysis Critical Control Points plan) identifying and monitoring each critical point of raw milk production. Producers choosing this option would not be subject to the unreasonable coliform count requirement mandated by AB 1735.

The statement issued by Schwarzenegger in support of his veto looks like it was written by the California Department of Food and Agriculture (CDFA). In his statement the governor claimed that the state's two raw milk dairies have been operating successfully under AB 1735, ignoring the fact that both dairies have failed the coliform requirement on numerous occasions. They live with the ever-present threat of suspension from three over-the-limit counts out of five tests, thus jeopardizing the dairies' ability to remain in business. His statement also noted that AB 1735 passed the legislature unanimously, not mentioning that the bill was put on the consent calendar as a non-controversial measure and neither licensed raw milk dairy (Organic Pastures and Claravale) was notified of its existence until after it was passed.

State Senator Dean Flores, Chairman of the Senate Agriculture Committee and principal sponsor of SB 201, has expressed his intent to introduce raw milk legislation again for the 2009 legislative session which begins in January.

PENNSYLVANIA: HENDRICKS FARM & DAIRY

Hendricks Farm and Dairy (HFD) is a grass-based organic raw milk dairy in Telford. The dairy boasts a state-of-the-art facility and has an impeccable track record with not a single positive pathogen test during its seven years of being licensed to sell raw milk. The Pennsylvania Department of Agriculture (PDA) has even sent people wanting to start a raw milk dairy to HFD to learn how to set one up the proper way. In addition to selling around 500 gallons of milk each week, the dairy also produces and sells raw milk cheese. HFD's cheeses have won several American Cheese Society awards. What HFD owners, Trent and Rachel Hendricks, found out this past summer was that all of this meant nothing when the dairy came under suspicion by the Pennsylvania Department of Health and PDA as being the cause of a foodborne illness outbreak.

Between September 1st and the 12th, 2008, the Pennsylvania Department of Health identified a total of seven confirmed cases of campylobacter

infection among raw milk drinkers "in seven unrelated households in Pennsylvania and a neighboring state." On September 11, the PDA came to obtain samples of milk from HFD. On that day the agency asked Trent to voluntarily suspend sales of raw milk; Trent refused and requested that the state not issue any press release until the test results were known. Ultimately, the agency took ten milk samples from the farm. To verify the accuracy of PDA's testing, Trent took a split sample of each sample taken by PDA and sent them to an independent lab for testing.

On September 12, PDA delivered a letter to Trent officially suspending his sales. The permit suspension letter stated, "The presence of the disease-producing organism Campylobacter in raw milk from Hendricks Farms and Dairy operation renders that milk unsafe, and is a violation of the requirement of the Milk Sanitation Law...." According to a guidance document issued by PDA, the agency must give a raw milk licensee at least five days advanced written notice of a raw milk permit suspension. The only way the agency can legally suspend a licensee's sales before that time, other than the farmer agreeing to a voluntary suspension, is through a court order. PDA's suspension letter to HFD on September 12 violated its own guidelines. [This was a busy day for the agency—that morning Bill Chirdon, Director of PDA's Bureau of Food Safety and Laboratory Services, and other agency employees raided Newville farmer Mark Nolt for a third time, once again confiscating thousands of dollars worth of food. See the Fall 2008 issue of Wise Traditions for background on Nolt.]

The afternoon of September 12, the Pennsylvania Department of Health issued a press release advising consumers "who purchased raw milk from Hendricks Farm & Dairy of Telford, Montgomery County, to immediately discard the raw milk and any items made with the raw milk due to potential bacterial contamination." Even though there was no record of anyone getting sick from "any items made with the raw milk," the advisory warned consumers to get rid of the farm's raw milk cheeses as well.

PDA lifted the suspension on September 19. All ten milk samples taken from the farm tested negative for campylobacter; an eleventh sample taken from an open container of milk purchased from HFD on August 30 tested positive for campylobacter. This was the only milk tested from which Trent was unable to get a split sample. Given the various possible ways it could have been contaminated, this sample would not have held up as evidence in a court of law. There was never any link established between the milk from the dairy and the campylobacter infection suffered by those who became ill.

The suspension hurt HFD tremendously. Retail sales at the dairy were down by at least 20 percent compared to sales levels before the suspension. At the present time, Trent has not yet decided whether to sue PDA for the damage done to the farm's reputation and business.

ONTARIO, CANADA: MICHAEL SCHMIDT

On October 20, 2008, Justice R. Cary Boswell of the Newmarket Superior Court found Michael Schmidt guilty of contempt for failing to obey a court order to stop "selling" raw milk in the York Regional Municipality. The court had characterized Schmidt's distribution of raw milk to his shareholders in the cow share program he operates as a "sale" [see the Fall 2008 issue of Wise Traditions for background]. Boswell said that the case was about whether Schmidt had defied a court ruling, not whether consumers had the right to drink raw milk. The judge indicated that the farmer had convicted himself with media comments that he was still "selling" raw milk.

Schmidt asked the judge to impose "the highest penalty you can find." The farmer stated, "It's not the milk here, it's the principle that people need to make the decision of what to put in their bodies. When government tells them what to eat and not eat, that's a very sacred thing."

Crown prosecutor Dan Kuzmyk suggested the court fine Schmidt \$5000 and assess him \$53,000 for legal bills run up by the York Region. Kuzmyk said that he was unwilling to let Schmidt become a martyr and "throw himself on the sword of the York Region."

On December 2 Justice Boswell served Schmidt a written notification of sentence. Boswell gave Kuzmyk what he wanted, fining the farmer \$5000 and assessing him \$50,000 in court costs. In making his ruling, Boswell stated, "The primary purpose of punishment in contempt proceedings is deterrence. In this case, issues of

both specific and general deterrence are in play. The punishment imposed must serve as notice to others that similar actions will not be tolerated and will attract meaningful punishment. To do otherwise threatens the integrity of the court's process."

The judge also commented, "The contemptuous breach of the order accordingly involves an issue of public health and safety and this too is an aggravating factor." Yet at the contempt trial Schmidt was not permitted to bring up the issue of raw milk and the public health. Following the sentence, Schmidt sent a letter to his shareholders, friends and supporters. In his letter Schmidt pointed out that "man-made law is no law if it disrespects the fundamental rights and freedoms of individuals which are deeply rooted in the Canadian Charter of Rights and the Bill of Rights."

Schmidt said he did not "accept" Boswell's ruling because he believes that the York Region cooperated with the Ministry of Natural Resources to use the contempt trial in order to deny him a fair hearing and due process in his upcoming trial on twenty violations of the Ontario Health Promotion Protection Act and the Ontario Milk Act. The charges were brought by the Ontario Ministry of Natural Resources and the Grey-Bruce Health Unit. The trial is scheduled to begin on January 26, 2009.

As for what the \$55,000 judgment means to the farm, Schmidt gave the following comparisons, stating that the sum was equivalent to the cost of "27,500 litres of raw milk... the cost of 22 acres which can feed about 50 families... 10 years of net income (if you're lucky) in farming... 25,000 hours of farm work in Canada." Schmidt told Bayshore Broadcasting News that he would *not* pay the fine and court costs.

In fighting for his right to distribute raw milk to his shareholders, Schmidt has become outspoken in his criticism of Ontario's dairy establishment. He has called for the scrapping of the province's Milk Marketing Board, saying that it failed its legislative mandate to protect small-scale farming. He has expressed his intent to pursue legal action against Dairy Farmers of Ontario (DFO), the organization that regulates the supply of milk. According to Schmidt, DFO has stone-walled his request on looking into how raw milk could be sold in the province, violating its mandate to carry out research for "policy development and formation." (Sources: *The Toronto Star – HealthZone* 10/20/08 & *Canadian Press* 11/18/08. For more details on Schmidt's case go to www.thebovine.wordpress.com.)

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



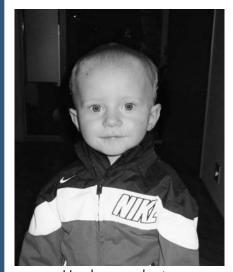
Six-month-old Aria Violet was eight pounds nine ounces at birth, and began drinking raw milk-based homemade formula at five weeks. She has slept through the night since two months, is happy, healthy, enormously curious and mobile. Her family jokes that her diet is so vital it makes her hair stand straight up! She is now seven months and crawling and pulling herself up to stand. She babbles in every octave very purposefully, imitating her mom in intonations exactly. They play "call and response!" She eats egg yolks with salt and is trying out chicken made with bone broth and loves to suck on rare local-grown steak! Mostly, though, she still loves her formula!

Eden Leigh Mignogna was born May 2, 2008. After her completely natural birth, Eden never lost weight and has gained beautiful rolls of chub around her joints. Eden thoroughly enjoys her diet of 100 percent creamy mother's milk and is looking forward to her first bite of raw, dark orange egg yolk. Mommy consumed raw milk, pastured meats, cod liver oil, butter oil and other nutrient-dense traditional foods during pregnancy, and the family will continue to enjoy this nourishing diet for life! Mom, Rozlyn, and Dad, Brendan, praise God to have such a smart, happy baby who sleeps well and is very advanced with motor skills. She is the most beautiful baby to be born into the family for many generations, and the first Weston Price baby in the family.



Kayo Evelyn Araki, came into the world with a beautiful, easy home birth on September 25th, 2008 weithing seven and one-half pounds. She is pictured here with Taiji, her very gentle and loving older brother. Kayo (pronounced kah-yoh) is a Japanese name meaning

"fragrant world."



Handsome, robust, Aaron, age twenty months, is a Weston A. Price baby from Iceland!!



Happy, healthy raw milk kids Nicky (19 months) and Whitney (three years) on a visit to a Family Cow dairy open house sponsored by Rural Vermont.



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.

WAPF CONFERENCE CHAPTER MEETING NOTES **NOVEMBER 10, 2008**

About sixty chapter leaders gathered for the traditional post-conference chapter leaders meeting at the Hyatt Regency San Francisco Airport Hotel. After everyone introduced themselves, Michael Schmidt spoke briefly about the key role women play in bringing about change. He praised the postive female energy in the Real Milk campaign and the Weston A. Price Foundation. Sally Fallon followed up with comments that the scientific male energy must be joined to the female energy in order for raw milk and our dietary message to be successful. She noted the various compilations of scientific studies at Realmilk.com and urged chapter leaders to become familiar with them.

Jeffrey Smith spoke next about successful tactics for activism, especially relating to GMO issues. The most powerful tactic is simply to refuse to buy GMO food. Health food stores can also be important allies. Even one major religious

group against GMOs would be enough to put an end to GMO food. Tremendous resources are available from www.responsibletechnology. org. He stressed that getting rid of GMOs should be easy and he expects to be out of a job in about a year. His anti-GMO campaign is a good activity for chapter leaders.

Mark Kastel from the Cornucopia Institute spoke next about the fundamental mistakes that modern agriculture is making. Soil is quickly depleted, microbes are killed and there is no incentive for quality. Farmers are convinced that conventional techniques are the only way

to farm. Even when they convert to organic they can't believe they don't need antibiotics. The industry is bankrupting the US. We are told we have the cheapest and safest food supply in the world but that is offset by the most expensive health care in the world. We are not the healthiest population in the world by a long shot. He ended up with some practical advice on how chapter leaders can create their own media events, dinners with local farmers, maintain a chapter website or a newsletter. The Weston A. Price Foundation has partnered

with the Cornucopia Institute on several initiatives, including an effort to rescind pasteurization requirements for organic almonds.

Larry Wisch reported on the latest news from Three Stone Hearth community kitchen. Business has been good despite the slow economy, and they recently had the best month ever. They have never advertised. They are currently serving 300 families per week. They have had people from all over the US come to intern at Three Stone Hearth. Their lease will expire in June 2009 and they are going to have to move. Larry sees this as an opportunity to upgrade to a better place.

Next, Lenna Knowlton, director of Meals that Heal gave her report. She had a surprise baby at 44 years old and developed lupus after the delivery. She was able to recover thanks to eating according to WAPF principles. For those who are intimidated by the hefty Nourishing Traditions, she has come

> out with a simplified version of the book. For truly healthy eating, she made a few simple suggestions: buy good stuff; if it says it's healthy, it probably isn't.

> Shan Kendall offers cooking classes in Nevada City. She is the Gold

Country chapter leader. She has been very active and busy. Through an excellent Powerpoint presentation, she gave everyone a good idea of how much work goes into a cooking class. Her classes focus on the basics, such as lacto-fermentation, broth, grain preparation and organ meats. She has also held potlucks, workshops, and

sponsored an appearance by Jeffrey Smith. Her Powerpoint and class materials will be posted on the chapter leader resource section at westonaprice.org.

After lunch, four focus groups were formed. One group talked about the upcoming chapter leader handbook, another was on spreading the word about GMO food, another on cooking classes and the fourth on one-on-one recruiting. Afterwards, everyone went out to change the world.

- AL Auburn: Michael Klein and Susan Ledbetter (334) 821-8063, gnomons@bellsouth.net and kleinmj@bellsouth.net Estillfork: John Langlois (256) 776-1499, john.langlois@foggybottomfarms.com, http://health.groups.yahoo.com/group/AL_WAPF/Gulf Shores/Eastern Shore/Mobile: E. Ann Morris (251) 928-6520, eannmorris4@aol.com
- AK Palmer: Stella Lyn (907) 746-9500, artemis@mtaonline.net
- AZ Kingman: Dianne Ronnow (928) 279-2736, sageblossom1@gmail.com
 Southeast Valley: Heather Gray (602) 330-4290, heather_wapf@garfias.org, http://wapfarizonasoutheastvalley.ning.com/
 Tucson: Robert Reed (520) 844-3430, wapf-tucson@hotmail.com and Vanessa Van Dalsem (520) 498-9919,
 vandalsem@comcast.net, http://health.groups.yahoo.com/group/wapftucson
- AR Fayetteville: Calvin and Doris Bey (479) 527-6951, CFBey1936@cox.net Little Rock: Rita G. O'Kelley (501) 350-1460, IrishROK@comcast.net
- CA Antelope Valley: Irene Musiol (661) 722-9317, Irene.m@roadrunner.com Arcata: Linda Redfield, NC (707) 834-2501, Linda@holisticselfhealing.org

Berkeley/Oakland: Dave Rana (510) 841-1112, WAPrice@niwas.org

Beverly Hills/Hollywood: Lisa La Barre, CN (310) 567-0210, lisalabarre@labarrenutrition.com

Calaveras County: Kristi Hyllen (209) 772-8863, sacredfoodways@yahoo.com Central Coast: Nicole Boyd (805) 440-4763, mothernatureobeyed@earthlink.net

Conejo Valley: Daniel Fish (818) 253-5519, daniel.fish@yahoo.com

CREMA- California Raw Milk Association: Christine Chessen (415) 505-4965, crema@comcast.net Del Norte County: Stephanie & Blake Alexandre (707) 487-1002, stephanie@ecodairyfarms.com

Grass Valley/Nevada City: Shan Kendall (530) 478-5628, daveshanken@juno.com and Cathe' Fish (530) 478-1852, sunshine.works@gmail.com

Los Angeles, West/Santa Monica: Victoria Bloch (310) 479-6143, Victoria@bloch+coulter.com, www.wisetraditions-la.com

Los Feliz/Atwater Village/Echo Park: Becky Bell (323) 899-4020, rebeccamay bell@hotmail.com

Marin County: Sarah Bearden (415) 461-7427, esbearden@aol.com

Merced County: Marie Meredith (209) 384-7598, mariemeredith@hotmail.com

Monterey County: Willa Keizer (831) 726-3190 willa@homeopathyhome.net

Newport Beach: Jacqueline Hahn (949) 854-8088, jhahn1@cox.net

Orange County, South: Marsha Youde (949) 425-1575, healthylifestyle101@gmail.com

Pasadena: Karen Voelkening-Behegan (626) 836-5053, gaia@toad.net

Redding: Trudi Pratt, DC (530) 244-7873, drtrudi@charterinternet.com, www.drtrudipratt.com

Redondo Beach: Angela Karlan (310) 540-6542, akarlan@yahoo.com and S. Jeff Jennewein, DC, jjennewein@teacher.tusd.org

Sacramento: http://health.groups.yahoo.com/group/WAPF-Sacramento/

San Diego/East County: Victoria & Robert Bradley (760) 536-6789, Victoria@ramonafamilynaturals.com

San Diego/Encinitas: Kim Schuette, CN (760) 942-1194, info@biodynamicwellness.com

San Francisco: Judy Bonhiver (415) 643-4734, jbonhiver@yahoo.com, www.westonapricesanfrancisco.org

San Jose and South Bay: Pamela Laine (408) 718-9036, wapfsouthbay@gmail.com

http://health.groups.yahoo.com/group/WAPF-SouthBay/

Santa Cruz County: Jean Harrah (831) 761-3765, jalysonh@yahoo.com

Santa Monica: see Los Angeles

Santa Rosa: Anne Fischer-Silva (707) 849-3569, afischersilva@comcast.net

Stockton and San Joaquin County: Martha E Zetter, Holistic RN, CRM (209) 478-7630, martha@zetter.com

Three Rivers: Teriz Mosley (559) 561-3637 terizmosley@hotmail.com & Anore Jones (559) 561-3161, anore@earthlink.net

Valley Springs: Denise Gregory (209) 772-1964, sierrafarmz@yahoo.com

Ventura City: Laurie Warner, MA, CNC and Theresa Vernon, LAc (805) 653-1636 (evening), hearthcraft46@yahoo.com

CO Aspen: Dione De l Monica (970) 544-5301, dione100@aol.com

Boulder: Lisa McConnell (612) 922-9996, mmlisa2@hotmail.com & Seth Braun (303) 443-6543, seth@sethbraun.com

Colorado Springs: Emmy McAllister (719) 268-7101, healthsolutionsnow@earthlink.net

Denver: Blair McMorran (303) 328-3578, baburn1@comcast.net and Dianne Koehler (303) 423-5736,

Dianne.Koehler@gmail.com, nourishingconnections.org

Eastern Plains: Maria Atwood, CNHP (719) 346-0300, easternplainswapf@yahoo.com, www.traditionalcook.com

Longmont: Anne Harper, Carl Del Tufo, L.Ac (303) 776-3491, traditionalfoods@earthlink.net

Northern Colorado: Meg Cattell, DVM, (970) 481-1536, meg@windsordairy.com, www.windsordairy.com

Parker: Angela Baird and Rachel Clem (303) 638-3716, angelarbaird@yahoo.com

Pueblo/Rye/Wet Mountain/Lower Arkansas Valley: Nancy Trask & Kim Wiley (719) 647-1293, nourishingways@msn.com Westminster: Delicia Beaty (303) 456-5009, westminsterwapf@gmail.com

CT Fairfield County: Selina Rifkin (203) 209-7680, gelfling2364@charter.net

New London County: Tammy Collier (860) 859-1554, handypups@aol.com & Kellene Limpert (860) 535-4307, millhouse06359@juno.com

NW Corner: Stephanie Shearer (860) 824-4425, stephacow@sbcglobal.net

Watertown: Dr. Ron Schmid (860) 945-7444, drron@drrons.com

DE Northern Delaware: Bob Kleszics (610) 255-1691, harvestbob@juno.com

DC Washington: Melanie Sunukjian melanie.sunukjian@biola.edu

FL Bradenton: Nancy Hausman (941) 720-2623, info@nancyhausman.com

Broward County: Dr. Paola Weber & Charles Weber (954) 330-3561, drweber@bmorganics.com

Deltona: Rhonda Mullis (386) 960-6628, jrrmullis@cfl.rr.com

Gainesville: Beth Michelson (352) 376-5908, bmichelson@bellsouth.net

Jacksonville: Diane Royal (904) 396-6881, droyal@cxp.com

Miami: Justine Raphael (305) 668-8237, justineraphael@gmail.com

NE Florida/SE Georgia yahoo group: savmilkgroup-subscribe@yahoogroups.com

Orlando: Diana Coughlin (407) 382-3446, dianajack@comcast.net

Panama City: Cecelia DeSonia (850) 872-1318, ceceliadesonia@hotmail.com

Sarasota: Cynthia Calisch and Preston Larus (941) 914-0299, wapfsarasota@gmail.com

Suwannee County: Denise Avery-Simmons (386) 362-1260, plaindee1@yahoo.com

Tampa: Sarah Pope sarah.pope@austus.com, http://health.groups.yahoo.com/group/WAPFTampaBay/

Vero Beach: Jody & Randy Old (772) 539-0220, jold@rbold.com, rbold@rbold.com

West Palm Beach: Gloria and Joe Cosmano (772) 489-7905, SeaBreezeOF@aol.com

GA Atlanta, East: Lynn Razaitis (404) 294-6686, razaitis _lynn@yahoo.com and Laurie Ledbetter (404) 786-7661,

labetter@aol.com Join the GA Chapter email group at http://groups.yahoo.com/group/GA_WPF/

Atlanta, West: Jessica Lara (678) 458-3654, jess426@gmail.com

SE Georgia/NE Florida yahoo group: savmilkgroup-subscribe@yahoogroups.com

Warner Robins: Lori Freeman (478) 953-8421, lorifreeman1@cox.net

HI Big Island: Lisa and Madelaine Romero (808) 333-0101, ohiarain@yahoo.com

Kauai: Catey Shanahan (808) 332-0727, supercatey@hawaii.rr.com

Oahu: Fang Cai, Lac, (808) 225-1539, fcai@orientalhealthsolutions.com

ID Boise: Juliana Benner (208) 850-8075, julianabenner@hotmail.com

Ketchum/Sun Valley: Leslie Bradshaw (208) 622-7724, leslie.bradshaw@mac.com

Latah County/Moscow: Eliza Fletcher (208) 883-2686, eliza28@cpcinternet.com

Northern ID: Barbara Geatches (208) 457-1757, bgeatches@yahoo.com

IL Central Illinois: Ann McDavitt (217) 762-2153, mcdavitt6@yahoo.com

Chicago: Shannon Sullivan & Stephen Weinberg (773) 496-4109, chicagowapf@gmail.com, http://ChicagoWAPF.blogspot.com

Dupage County: Sherrin Ingram (630) 514-7743, sherrin@sherrin.com, & Melinda Larson (630) 730-2119,

m laraz99@yahoo.com, www.westonpriceclub.com

Rockford/Freeport area: Dale and Eileen Kelsey (815) 239-1466

Wauconda: Linda DeFever (847) 526-6452, ocfever01@yahoo.com

IN Bloomington: Larry Howard (812) 876-5023, info-wapf@betterlocalfood.org

East Central Indiana: Michelle Hart (765) 935-4131, mrhart@indiana.edu

Fort Wayne: Leta True (260) 925-4826, grrrlgenius@aol.com

Indianapolis: Leslie Gray (317) 842-3757, leslie.gray@comcast.net

Kokomo: Neal and Michele Reishus (765) 628-3381, reishusfamily@aol.com

Lafayette/West Lafayette: Ben Leonard (812) 239-7073, compbody@gmail.com, http://lafayette-wapf.com

South Bend: Misty Sorchevich (574) 772-6996, sarnovich@earthlink.net

Southwest: Regina Robinson Ungar (812) 897-2696, rosehilldairy@yahoo.com

IA Des Moines: Steve & Teresa Colyn (515) 961-6448, Jadegarden96@hotmail.com

Holstein: Elaine Rolfs (712) 368-2391

Southwest: Luana & Glenn Harman (712) 483-2011, glennandluana@iowatelecom.net

KS Inman/Central Kansas: Connie Newcome (620) 585-2556, cnewcome@gmail.com Lawrence: Tamara Fairbanks-Ishmael (785) 691-5914, tsfairish@sbcglobal.net Merriam: Jody Drake & Sandra Stoner (913) 722-4343, jody@mutrux.com

KY Louisville: John William Moody and Jessica E. Moody (502) 290-4895, john@wholelifeco-op.com Northern Kentucky/Florence: Stacey Lang, DC (859) 331-2800, info@nwhic.com and Stephanie Potter (859) 689-1959, spotter@fuse.net Paducah/Western KY: Victoria LaFont (270) 554-1804, beginningend@riseup.net

LA New Orleans: Kathia Duran and George Caraccioli (504) 472-6022, kathia@global-trade-network.com

ME Casco Bay: Suze Fisher, Kate Mockus and Jane Greenleaf (207) 725-0832, suzefisher@gwi.net

North Berwick: David Plante (207) 676-7946, dplant@maine.rr.com Oxford Hills: Donna Dodge (207) 739-2600, eatsmart@megalink.net

Penobscot Bay Area: Emily and Adam Rawn (207) 691-9327, adam2emily@yahoo.com

Whitefield: Susanne Meidel (207) 549-5716, meidel@earthlink.net

MD Anne Arundel County: Priscilla Smith (410) 990-0550, Priscilla.smith@gmail.com, Jessica Earle (410) 268-0197,

Jessica@essencephotography.net and Cara Bergman (410) 647-2884, cslbergman@comcast.net,

http://health.groups.yahoo.com/group/WAPF-Anne-Arundel-County, http://www.nourishingyouandyourchildren.blogspot.com/

Baltimore: Hillary Little (443) 912-4688, hlittle@comcast.net and Louise Mitchell (410) 426-4213, mitchelllouise2@yahoo.com

Bowie: Ken & Liz Reitzig (301) 860-0535, liz.reitzig@verizon.net, Deneice Knauss (301) 352-7024, knauss20@excite.com

Brunswick: Leah Mack (301) 834-7172, leahpmack@yahoo.com

Cumberland: Bill Johnston and Stacey Webster (301) 722-4555, wcjohnston@verizon.net or stacyjj@gmail.com

Gaithersburg: Cyndi Greene (301) 216-0375, cyngreenemd@yahoo.com

Howard County: Mary Winterbottom (301) 996-0713, mary@thephilosopherchef.com, Susan Winterbottom

(301) 776-3170 sewinterbottom@verizon.net

Jarrettsville: Janet and Paul G. Baer (410) 692-2820, jbaer@starband.net

Kent Island: Dr Kristin Mowry, PT, DPT, CHHC (410) 643-8744, drkristin@mac.com and Diane Bedlin (410) 643-3283,

dianebedlin@gmail.com

Westminster: Amy Conaway (410) 848-3141, hysenthlaydew@yahoo.com,

http://health.groups.yahoo.com/group/WestminsterWAPF/

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.

MA Andover: Liz Anderson (978) 474-9283, wapandover@comcast.net

Berkshire: Mary Elizabeth Merritt (413) 528-4262, fourwindsfarmgb@aol.com

Brookline: Jill Ebbott (617) 232-3706, jebbott@msn.com

Central: Sharon Barrett (508) 845-6985, sharon.barrett@verizon.net

Hadley: Karlina Mottern (413) 586-1465, karlina@tmail.com

Harwich: Rebecca Ryan & Kathy Hansel Ponte (508) 237-3302, capecodbodyessentials@comcast.net

Metro West: Kathleen Mosher (508) 435-3250, jkmosher@comcast.net

 $Milton: Keith \ and \ Jennifer \ Wrightington \ (781) \ 5 \acute{8}9-5595, \ fitwright@comcast.net$

Norfolk: Laurie Warren (508) 520-9757, lwarren66@verizon.net Northampton: Joe Watters (413) 584-4096, jwatters2@comcast.net North Shore: Cyndy Gray (978) 526-7440, cyndy@justdairy.org Pelham: Julie Rypysc (413) 253-7339, snowyowl@crocker.com Pepperell: Renee Cyr (978) 433-9732, rmcyr@charter.net

Winchendon Springs: Beth Ingham (978) 297-1148, noondayfarm@hotmail.com

MI Ann Arbor: Jessica Feeman (810) 225-2789, info@aawapf.org, http://www.aawapf.org

Big Rapids: Tim & Fae Presley (231) 796-2015, tfpresley@hughes.net

Central Michigan: Kathryn Doran-Fisher (989) 773-1310, purelightnht@hotmail.com

Crystal: Eric & Dawn Campbell (989) 235-5035, campbellscow@cmsinter.net

Detroit: Rosanne Ponkowski (248) 828-8494, info@htnetwork.org

Gaylord/Johannesburg: Cindy Current (989) 786-4595, puddingstonefarm@yahoo.com

Genesse/Lapeer/N. Oakland: Kim Lockard (810) 667-1707, KimLockard@gmail.com & Lorna Chambers (810) 664-4372, chambersbl@charter.net

Grand Rapids: Gil Witt (616) 299-9268, gil@kitchensbystephanie.com

Jackson/Grass Lake: Heather Grenier McDougall (734) 320-3722, heather@heathermcdougall.com

Lansing: Deborah Bailey (517) 316-0392, pcvdebb@hotmail.com

Livonia: Danielle Piergentili (734) 762-1662, wapf_Livonia@yahoo.com

Midland: Grace Cummings (989) 687-5425, gracecummings@charter.net

Northeast Michigan: Dr Bob & Lisa Turek (989) 724-7383, gerininamo@yahoo.com

Oakland County: Lisa Imerman (248) 618-9266, Irimerman@comast.net, Archie Welch (248) 620-8969, deecurrie@ozemail.com.au

Oakland, North/Genesse/Livingston Counties: Diane & John Franklin (248) 634-2291, diane@rockygardens.com

South Central: Peggy & Ted Beals (734) 475-0406, pegbeals@msn.com

South East: Maurine R. Sharp, RN (734) 755-4213, herbsandmore@sbcglobal.net

MN Fargo/Moorhead (Minndak): Skip Wood (701) 239-7622, wood@cableone.net

Minneapolis/St. Paul: Will Winter & Rebekah Leonhart (612) 827-1549, holistic@visi.com

Minneapolis/East-side: Edward Watson (612) 845-9817, edbigcat@aol.com Northwest Minnesota: Mary Lien (218) 487-5560, jmlien@gvtel.com St. Cloud: Jane Frieler (320) 224-5767, letfoodbym@clearwire.net

MS Pearl River County: James & Mary McPherson (601) 795-0379, mcphersonmuses@hotmail.com

MO Columbia: Shayna Fasken DC, (636) 295-0930, shaynafaskendc@gmail.com

Eastern Missouri: David J. Henderson (573) 242-3449, quality@big-river.net

Kansas City area/Lee's Summit: Donna Schwenk (816) 554-9929, donnasch@kcweb.net

St. Louis: Josephine Lee (636) 527-0489, wapfstl@yahoo.com

Springfield: Rick Hopkins (417) 258-2394, rdhopkins@americanpasturage.com

MT Billings: Diane Gallardo (406) 259-7585, info@bodyawarenesslearningcenter.com

Bozeman: Ben Hanawalt (406) 579-4363, benoftheboulders@gmail.com Great Falls: Lynn Evans (406) 268-8480, lynn@ahealthyhorizon.com Helena: Barb Halver, RN, CWS (406) 227-7529, rbhalver@bresnan.net

Missoula: Kristen Lee-Charlson (406) 541-3999, ediblemissoula@gmail.com

NE Blair: Marc A. Blais (402) 426-9211, drmab@huntel.net

Lincoln: Elanor Sodergren (402) 328-8063, esodergren@catholic.org

Northeast Nebraska: David and Barbara Wetzel (402) 338-5552, wetz@threeriverwb.net

Norfolk Area: Shawn Davis and Mari Davis (402) 675-5185, wapf@genesisnaturals.com

Omaha: Dr. Jon and Jessica Lozier, (402) 502-6726, Jessica@lozierwellness.com

NV Reno – Tahoe area: Bari Caine (775) 851-8590, Greenleaf@lycos.com, www.organiclifestyle.net

NH Amherst/Nashua: Susan Stefanec (603) 673-0890, thinkglobal@comcast.net & Judi Letourneau (603) 472-2152,

pjletourneau@comcast.net

Concord: Kelly Giard (603) 228-0407, office@naturopathiclinic.net

Gilsum: April, Mandie & Sandra Littell (603) 313-6432, (603) 358-0522, dlittell@hotmail.com

New London: Linda Howes (603) 526-8162, nourishingwellness@verizon.net

Upper Valley: Louise Turner (603) 272-4305, journeytowholeness2000@yahoo.com

Whitefield: Susanne Meidel (207) 549-5716, meidel@earthlink.net and Sandra Redemske (207) 549-3531, sandy@laughingloon.com

NJ Hamilton: Ruben T. Ong, MD and Rosalinda V. Gavriel, MD (609) 585-2421, rubentong1@hotmail.com

Jersey Shore: Lori "Minnky" Radcliffe, RN (732) 620-2193, minky@hotminky.com Lawrenceville: Sandeep & Nalini Agarwal (609) 750-0960, sandeep@wapfnj.org

Matawan: Doreen McCafferty (732) 970-3132, dcfitness@hotmail.com

Northeast NJ: Carol Rice (201) 444-4007, northeastnjwapf@optonline.net

Northwestern NJ: Tara Bowers (908) 362-7967, info@foodshedalliance.org, www.NNJ-WAPF.org

Palmyra: Kevin & Tracy Brown (856) 786-4875, visionarytrainers@hotmail.com Passaic: Diane Rosenblatt and Lily Hodge (973) 471-2966, wapfpassaic@gmail.com Southampton: Judith Mudrak (609) 859-3828, reversemydisease@yahoo.com

NM Albuquerque: Thomas Earnest (505) 899-2949, tcearnest@comcast.net

Albuquerque, East: Nicole Radigan (505) 232-7642, wapf-abq@radigan.net Edgewood (East Mtn): Jennifer Gresham (505) 604-2919, jennandles@msn.com

Santa Fe: Sol Lederman (505) 988-2888, s lederman@yahoo.com

NY Buffalo: Jill Tiebor-Franz (716) 655-5133, jatf62@roadrunner.com

Capital Region/Saratoga: Susan Garth (518) 763-1466, thenaturalkitchen@yahoo.com,

http://health.groups.yahoo.com/group/wapf_ny_capitalregion/

Finger Lakes Region/CNY: Dr. Anthony Alphonso, DC & Melissa Alphonso (315) 689-6140, back2wellness@gmail.com

Franklin Square/Elmont/Nassau County: Caroline Barringer (877) 773-9229, milk-it@immunitrition.com

Lower Dutchess: Alice Castellano (845) 227-8527, abcinfo@frontiernet.net

Nassau County North: Liz Kaplan (516) 808-4132, Kaplan liz@yahoo.com

New York City Chapter: Claudia Keel, info@wprice-nyc.org, and Brigitta Jansen (347) 968-0248,

brigitta@wprice-nyc.org, www.wprice-nyc.org,

Oceanside/Lynbrook: Juliana Mazzeo (516) 593-5167, giulia07@verizon.net, www.nymedicalnutrition.com

Riverhead: Ashley Lewin & Chris Nelson (631) 727-1025, sales@desertherbals.net

Rochester Metro: Elizabeth Benner (585) 490-4710, elizabethmerzbenner@yahoo.com and

Chris Nuccitelli (585) 737-5927, chris@hforganics.com

Rockland County: Deverell Pedersen (845) 290-9620, wapfrockland@gmail.com

Southern Tier: Stuart McCarty and Lynn Thor (607) 693-3378, wsgcsa@tds.net

Suffolk County: Betty Moore (631) 987-9792, bmoore4718@aol.com

Ulster County-Hudson Valley: Dina Falconi and Charles Blumstein (845) 687-8938, waverider75@earthlink.net

Westchester County: Karen Campbell Betten (914) 630-0096, karenbetten@optonline.net and

Mary McCleary (914) 763-0821, mmccleary@earthlink.net

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/

NC Asheville: Maria Parrino (877) 819-5976, health4u@ureach.com Charlotte: Shannon Shell (704) 890-6184, sasshell@hotmail.com

Greensboro: Ruth Ann Foster (336) 286-3088, eatreal@gmail.com

Triangle/Durham: Alice Hall (919) 419-0201, tigrclause@mindspring.com & Ken Morehead (919) 383-7878,

kfmk@earthlink.net, NC Natural Milk Campaign: www.ncrawmilk.org

Wake Forest: Laura Bowen (919) 569-0308, laurabowen@nc.rr.com

ND Fargo/Moorhead (Minndak): Skip Wood (701) 239-7622, wood@cableone.net

Minot: Farrah Faulkner (701) 448-9210, farrahfaulkner@yahoo.com

OH Amelia/Clermont County area: Michael Taylor (513) 553-9868, realfoodremedies@gmail.com

Canal Fulton: Betsy Clay (330) 854-6249, betsyclay@sbcglobal.net

Canton: Kathryn B. Stockdale (330) 756-0162, juiceplus@wilkshire.net

Cincinnati: Richard and Vicki Braun (513) 921-1577, victoriabraun@hotmail.com and Anita Sorkin (513) 559-0112, cincinnatiwapf@mac.com

Cleveland: Nadine Macasek (440) 526-5867, nadmac@sbcglobal.net and the Drake family (216) 502-2211, drakefamily@neworganiclifestyle.com

Dayton: Jim & Joan Roberts (937) 898-5063, jtroberts@usa.com

Defiance: Ralph and Sheila Schlatter (419) 399-2350, rschlat@bright.net

Fulton County/Wauseon: Brian Bowman RN & Debra Bowman RN (419) 335-6569, RN@arrowpeakhealingfarm.com

Harden County: Jamie Fiene (419) 673-9553, kfiene@watchtv.net

Lima: Laurie Smith (419) 568-3951, lms@signsohio.com New Hampshire: Marita Whitaker (419) 568-2855

Oakwood/Kettering/Centerville: Linda Woods (937) 293-4874, lwoods@woh.rr.com

Rawson: Wayne Feister (419) 963-2200, wayne@feiway.com Shelby County: Pam Carter (419) 628-2276, gpcarter@bright.net

Toledo: Kris Johnson (419) 836-7637, kris.Johnson@ecunet.org and Lisa Bowe (419) 340-1606,

lisabowe@adelphia.net, www.WAPFtoledo.org, www.mercyviewmeadow.org

West Liberty/Champaign County: Debbie & Jeff Dill (937) 597-5080, dnjdil90@yahoo.com

Yorkshire: Dan Kremer (419) 336-5433, Dan@eatfoodforlife.com

OK Oklahoma City: Kathy Gibb (405) 602-2696, gibbkathy@hotmail.com

South Central/Texoma Area: Mary Friedlein (580) 795-9776, mary5@hughes.net

Tulsa: Joy Remington (918) 828-3640, joyremington@yahoo.com

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

Eastern Upper Peninsula: Greg Krause (Engadine) (906) 477-6537, gakrause1234@hotmail.com, and

Cynthia Dutcher (Goetzville) (906) 297-2120, dutchfarm@sault.com

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

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

TN 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

TX Abilene/Eastland: Kerry & Joy Hedges (254) 725-4084, slowpokefarm@hotmail.com

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

Longview/Tyler: Jerica Cadman (903) 241-2775, jericacadman@truefields.com

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, www.homeweetfarm.com/WAPF.htm

UT Layton: Russ and Norma Silver (801) 774-6218, rsilver@xmission.com Sevier County: Kari Carlisle (435) 633-0260, karicarlisle@yahoo.com

Utah County: Betty Pearson (801) 766-8777 betty@ourldsfamily.com

Ctail County. Betty I carson (601) 700 0777 Betty@oundstaininy.com

VT Northwest Vermont: Doug Flack (802) 933-7752, www.flackfamilyfarm.com

Randolph Ctr: Margaret Osha (602) 778-7064, msosha@gmail.com

VA Alexandria: Janice Curtin (703) 751-5505, janicecurtin@gmail.com and Alana Sugar (703) 566-9682, alanasugar@comcast.net

Ashburn: Susan Clark, DC (703) 858-3575, susan@back-n-action.com and Eugene Su, DC dreugenesu@gmail.com

Botetourt/Rockbridge Area: Kirsten Griffiths Moeckel (540) 254-3247

Charlottesville: Kathryn Russell (434) 293-8312, info@majestyfarm.com

Earlysville: Susie Vance (434) 973-3753, wpearlysville@yahoo.com

Falls Church: Kasha Neam (703) 533-8484 and John DeRosa (703) 677-2072

Fauguier-Rappahonnock: Harvey and Ellen Ussery (540) 364-1877, ellenjill@nelsoncable.com, boxwood@nelsoncable.com

Floyd/Roanoke: William Munzing (540) 929-4455, munzing@verizon.net

Front Royal/Strasburg: John & Maria O'Brien (540) 635-3007 and Regina Farinholt (540) 837-2926, wapfva@gmail.com

Goochland County: Linda Hosay (804) 457-3714, awealpha@juno.com

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

 $Manassas/Prince\ William\ County:\ Sally\ Holdener\ (703)\ 753-6492,\ sally\ holdener\ @gmail.com\ \&\ Laura\ Gossin\ laugoss\ @verizon.net$

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 and Darlene Spitler (540) 896-6040, miracleacres@hughes.net

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

WA Belfair: Christy Peterson (360) 689-5099, historicalnutrition@yahoo.com

Bellingham: Carla Witham (360) 671-2668, ccwitham@gmail.com Edmonds: Jennifer Lenel (206) 235-1020, lenelglassworks@comcast.net Redmond: Shonagh Home (206) 409-1536, shonagh@rawgorgeous.com SeaTac: Nancy Jerominski (206) 852-4768, nljfitnessconsulting@comcast.net Seattle: Jennifer Adler, MS, CN (206) 595-0376, jenniferadler@yahoo.com

Shaw Island: Gigi Allaway (360) 739-7163, gigimberardi@msn.com

Skagit: Carol Osterman (360) 466-2058, carol@akylafarms.com

Snohomish/Darrington: Mary Stankey (360) 436-1010, mstankey@gmail.com

Stanwood, North: Kathy Tarbox (360) 652-2691, ktarbox@gmail.com & Chrissie Hasenohrl (360) 629-6025, farmschoolfamily@gmail.com

Twisp: Carole Schroeder RN, PhD & Lee Hatcher (509) 997-0224, caschroeder@igc.org

Vancouver: Monique Dupre (360) 694-1283, moniquedupre@gmail.com Whidbey Island: Roy Ozanne, MD (206) 914-3810, royozanne@whidbey.net

WV Charles Town: See Brunswick, MD

Charleston: L. G. Sturgill, PhD (304) 347-1000, LGSturgill@verizon.net

WI Burlington: William Neu (262) 763-9952, chirho3@pngusa.net

Central Wisc/Vesper: Cindy and Pat Bice (715) 424-5159, bqcr44@hotmail.com Eastern WI: Emily and Laura Matthews (920) 273-1849, meg11851@yahoo.com Elkhart Lake: David & Annika Turba (920) 894-1757, westonpricenutrition@yahoo.com

Eau Claire: Lisa Ornstein & Scott Westphal (715) 410-9275, chippewavalleywisetraditions@yahoo.com

Fremont: Ruth Sawall (920) 446-3551

Hartland: Rebecca Steiner and Tori Hausmann (262) 369-8999, hlmkt@sbcglobal.net

Hayward: John & Susan Bauer (715) 634-6895, jb_cmt@hotmail.com Janesville: Stephanie Rivers (608) 373-0963, stephabrewer@yahoo.com

Jefferson/Waukesha: James Christensen & Andrew Mastrocola (262) 593-2563, realmilkwisconsin@yahoo.com Madison: Carolyn Graff (608) 221-8696, zgraff@charter.net, Mary Jo Fahey (608) 827-5151, maryjofahey@tds.net &

Dr. Martha Reilly (608) 848-7225, drmartha@earthlink.net, www.madisonwapf.org

http://health.groups.yahoo.com/group/ wapfmadisonchapter Milwaukee: Muriel Plichta (414) 383-2121, mplichta@milwpc.com Manitowoc: Kevin Kumbalek (920) 683-3800, kkumbalek@yahoo.com

South Eastern: Dan and Paula Siegmann (920) 625-2185, bttbcs@charter.net, www.bestnutrition.org

Southwest Wisconsin: Jim and Sandy Kammes (608) 794-2638 Two Rivers: Roy Ozanne (920) 755-4013, royozanne@whidbey.net Viroqua: Therese Laurdan (608) 625-2425, info@homegreenhome.biz

Wausau Area: Abraham & Rebecca Bauman (715) 539-0010

West Central: Wayne and Janet Brunner (715) 285-5331, info@midvalleyvu.com, www.midvalleyvu.com Whidbey Island:

WY Buffalo: Susan Pearce (307) 655-2574, spearce@vcn.com

Casper: Vikki Nunn & Lee Anne Dobos (307) 472-3307, leedobos@wyobeam.com

Cheyenne: Ellen Davis (307) 638-8278, ellen.davis@att.net Sheridan: Susan Callison (307) 655-0123, susancalli@vcn.com



RAW MILK SEMINAR

On November 15, Anore Jones and Teriz Mosley, leaders of our Three Rivers, California, chapter, hosted a seminar on raw milk at the Mosleys' ranch on the South Fork. About 35 locals gathered to hear Mark McAfee, owner of Organic Pastures of Fresno, explain the benefits of raw milk, and of a whole foods diet in general. McAfee, an energetic speaker and enthusiastic dairyman, answered questions and concerns about raw milk, and spoke about the importance of friendly bacteria to the healthy human body, without which digestion (and life!) would be impossible. A potluck dinner afterwards gave participants an opportunity to share produce from their own gardens and pastures. Raw milk from Organic Pastures is available through Family Farm Fresh, our local CSA, which delivers to Three Rivers every Thursday.

AUSTRALIA

ACT Canberra: Jodie Wright 02 6231 2222, thenourisher@optusnet.com.au

NSW Byron Bay: Joanne Hay and Wes Davis (02) 6699 3442 joanne@nourishedmagazine.com.au, www.nourishedmagazine.com.au

Lismore: Emily Stokes (02) 6622 3139, thewordgarden@hotmail.com Stuart Town: Hal & Sally Harris (02) 6846 8261, merrimount@hotmail.com

NT Darwin: Alistair Wise (04) 2983-2012, wapf@wiseowl.id.au

QLD Bribie Island: Dr. Herbert H. Nehrlich (07) 3410-7999, drhhnehrlich@westnet.com.au

Brisbane: Julie Phillips (07) 3841-5999, foods@ihug.com.au

Cannonvale/Arlie Beach/Proserpine: Kyle Grimshaw-Jones (61) 755 332 869, Kyle@winshop.com.au

Gold Coast: Filippa Araki (07) 5598 7282, filippa91@yahoo.com.au, http://health.groups.yahoo.com/group/westonapriceaus/

Ipswich: Jennifer Christine Payrits 0430 027411, freedomorganics@gmail.com

Sunshine Coast/Connondale/Mary River Valley: Sven and Karen Tonisson (07) 5435 0041, gaia@ozemail.com.au

Sunshine Coast: James Cutcliffe (07) 5478 6489, jc_wapf@yahoo.com.au Toowoomba: Bronwyn Money 4615 5009, Bronwyn.money@gmail.com

SA Adelaide, Eastern & Northeast: John Patchett 61 8 8365 1960, naturalelthy@picknowl.com.au

Parafield Gardens: Lauren Morris 08 8281 0402, lmorris@adam.com.au

Semaphore Park/Adelaide Western Suburbs: Kate Netschitowsky, (08) 8341 5470, katenetch@yahoo.com.au

VIC Bendigo: Joy Stone 03 5433 3731, jdhoneypatch@yahoo.com.au Castlemain: Cathy Mifsud (03) 5411 2946 cathymifsud@bigpond.com

Fish Creek: Victorian Organic Dairy Farmers Association (Bev Smith) (03) 5683-2340, orana@dcsi.net.au

Melbourne: Arabella Forge wapfmelbourne@gmail.com

WA Albany: Mike & Barbara Shipley and Justin & Barbara Shipley (08) 9847 4362, Shipleysorganics@bigpond.com

AUSTRIA Kirchdorf: Herbert Bronnenmayer (43) 7582 64496 ext 15, wellmed@netway.at

BRAZIL Southwest: Alberto Machado 24-2442 0669, amachado@ism.com.br

CANADA

BC

AB Calgary: Riva Mackie rivamackie@gmail.com (403) 245-2462, http://health.groups.yahoo.com/group/westonapricecalgary/

Castor: Kathleen Charpentier and Richard Griebel (403) 882-3835, grebe6@telus.net

Edmonton: Lori Clapp (780) 417-3952, lifeworthwhile@gmail.com

Peace Country: Mary Lundgard (780) 338-2934, plundgard@telus.net or Levke Eggers (780) 568-3805, levke@telusplanet.net

Stettler: Gayle Thoun (403) 740-6637, mc_5thou@xplornet.com Enderby: Naomi Fournier (250) 838-0235, enderbywap@hotmail.com

Kamloops: Caroline Cooper (250) 374-4646, carolinecooper@telus.net Nelson: Lorraine Carlstrom (250) 352-3860, lorraine@earthlobby.com

Vancouver: Barbara Schellenberg (604) 254-6782, grassfedmeats@pasture-to-plate.com

MB Narcisse: Gary & Debbie Chikousky (204) 278-3640, gdchik@mts.net

NS North Shore: Silvana Castillo & Heather Scott (902) 257-2428, silvanacastillo@ns.sympatico.ca
ONT Durham/Markdale: Anne & Dave Watson (519) 369-9974, highmeadows@xplornet.com

Greater Toronto Area – West: Corey Evans, (905) 608-9314, info@healthisfreedom.net, www.healthisfreedom.net

Huron Shores: Marcus Koenig and Jessie Koenig-Liang (519) 294-0599, makoenig@porchlight.ca Niagara Region/St Catharines: Karen Nauman (905) 937-5214, nourished@dietlighthouse.com,

www.dietlighthouse.com/niagarawapf.html Ottawa: Gail Davis (613) 238-2782, gdavis@ncf.ca

Toronto (Downtown): Patricia Meyer Watt (416) 653-7112, b-healthy@rogers.com

SK Regina: Sandra Brandt (306) 359-1732, brandt.s@sasktel.net

COSTA RICA

Nathan Lapp 011-506-765-1116, Nathan@mightyrivers.net, www.mightyrivers.net

Turrialba/San Jose: Gina Baker & Reinhold Muschler (506) 2556-8021, waldorfcostarica@yahoo.com

EQUADOR

Melissa De Leon Douglass, cookingdiva@gmail.com

FINLAND

Tammisaari: Henrik Nyberg 358 (0)19-204 456, henrik.nyberg@makrobios.fi

GERMANY

Grosslangenfeld: Anita Reusch and Douglas Mitchell, 0049-(0)6555-242, anita@roylt.com

ISRAEL

Ramat Bet Shemesh: Milka Feldman 972-77-320-0742

NEW ZEALAND

Auckland: Alison Ellett, (09) 420-8548, nzflavour@xtra.co.nz

Christchurch: Dermot Kieran Whelan 0064 3 3519733 sundara12003@yahoo.com.au

Dunedin: Liselle Wood 03 478 0604, organicearth@hotmail.com

Invercargill: Sherry Elton (64) 3213 1156, sherry@sherryelton.co.nz, www.sherryelton.co.nz Lower North Island: Susan Galea (64) 6356 5186, susangalea@hotmail.com, www.realmilk.co.nz

Nelson: Shari Lawson 00 64 3 541 8054, sharis@clear.net.nz

South Canterbury: Ingrid Weihmann 03 686 6613, onlynatural@paradise.net.nz Wellington: lan Gregson 64 04 934 6366, wapf@frot.co.nz www.wapf.org.nz

NZ Resource List: Deb Gully, deb@frot.co.nz, www.diet.net.nz

NORWAY

Ames: Bjorn Solberg bjorn.solberg@gmail.com

PAKISTAN

Dr. Shagufta Feroz & Feroz Sharfuddin 92-42-8484303, drsferoz@yahoo.com

PANAMA

Melissa De Leon Douglass, cookingdiva@gmail.com

SINGAPORE

Cherie Barton-Brown (65) 6520 6539, cheriegordonb@yahoo.com.au

UNITED KINGDOM

Bournemouth & Poole: Kelvin Snaith & Sarah Turner 07 71989 5015, kelvinsnaith@hotmail.com,

sarah_alice_turner@hotmail.com

London & South East: Christopher & Peppa Ann Tolley 4417 5366 9166, chris_tolley80@hotmail.com

South West England: Ben Pratt 07952 555811, ben@nutritions-playground.com, www.nutritions-playground.com



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Ш

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We encourage our readers to obtain as much of their food as possible from small farms and independent businesses.

MD

Organically raised grass-fed beef, free-range 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.

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.

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

FARM PRODUCTS BY STATE

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.

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

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.

PΑ

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.

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.

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FARM PRODUCTS BY STATE

Grassfed Organic Raw Milk and dairy food: 100% grass-finished beef and lamb, pastured pork, chicken and turkey, wild Alaskan salmon; fermented vegetables, raw honey, maple syrup and more, Long Island drop, Paradise Pastures, Paradise, PA 717-687-6346.

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 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.

There's a NEW source for grass-fed meats in the Susquenhanna Valley! Owens Farm moved from New Hampshire last summer. Offering grass-fed lamb, pastured pork, meadow-raised chicken, happy veal raised on a momma cow. Visit Owens Farm www. owensfarm.com Sunbury, PA (570) 286-5309. info@owensfarm.com.

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.

Raw milk from 100% grass-fed cows, yogurt, eggs from free range chickens, 100% grass-fed beef and raw milk cheese. Ira & Mary Beiler. 570-278-5881

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. 17/4

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.

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: topoftheworld-farm@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. 10/3

W

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. 10/3

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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.

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. 10/3

GARLIC. Organic & Chemical Free as Nature intended. Whole cloves or dehydrated powder/chips. Erker Organic Farms, Burlington, CO. (719) 346-5026. *10/3

LACTO-FERMENTED VEGETABLES, raw, certified organic, locally-grown. Dill pickles, sauerkraut, kimchi, ginger carrots. Sold/Shipped within Northeast only. See website for store list and mail order info. Contact: Real Pickles, PO Box 40, Montague, MA 01351, (413) 863-9063, www.realpickles.com, info@realpickles.com.

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SPELT. Organically grown. Traditional Oberkulmer Variety. Our spelt is grown by a certified organic farmer. We ship anywhere in the US. We sell by the pound. Contact the Plain Grain Co. LLC for details: www.carasmaternalconnections.com, cara@carasmaternalconnections.com (248)628-8646 (paypal accepted). 10/2

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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. *10/3

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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. *10/3

COLORADO FARM seeks 2009 INTERNS for mimum three months. Live at Sunrise Ranch and learn about raising nutrient-dense foods, leadership and community building. Raise produce and grassfed beef in the foothills of the Rockies. Visit www.sunriseranch.org/farm or call (970) 679-4330.

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.

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 littlegiant-productions@yahoo.com. 9/4

DAIRY BUSINESS for sale in Southeast. Loyal customer base. 8 milking Jerseys, heifers, bull, milking equipment to supply 135 families weekly. \$40,000. Also 8 milking goats, 5 doelings, bucks, milking equipment to supply 40 families weekly, \$7,800. We will help you through transition. 23 acres sustainable farm, barn, outbuildings, creek, 5-bedroom off-grid home, \$260,000. eatreal@gmail.com. 10/3

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. Web site; www.farmsteadfresh.com.

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. *10/4

SAWSOMME (SAW-SOM-ME): 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.

TN 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

TN FARM FOR SALE. 12+ acres suitable for crops and livestock on crystal-clear Cane Creek, great for fishing and swimming. Located in a Mennonite farming community, great neighbors with lots of farming experience. 2600 sq ft energy-efficient house, 6 bed, 4 bath, attached apartment with separate entrance. Barn, workshop building, fencing, large organic garden. \$349,000, owner willing to finance. For photos and further info, visit http://rogerwindsor.com/farm/htm or call Roger at (931) 729-7622.

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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.

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9/4

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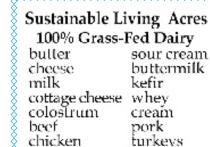
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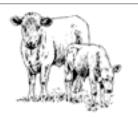
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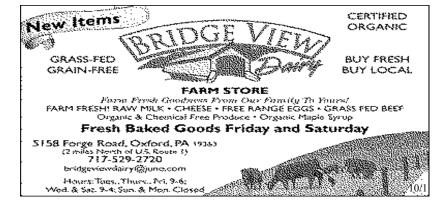
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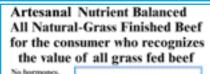
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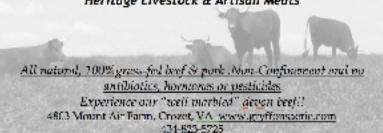
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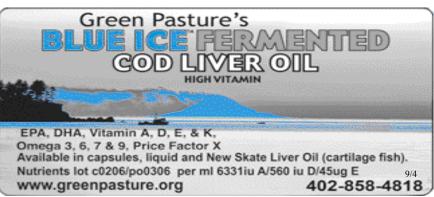




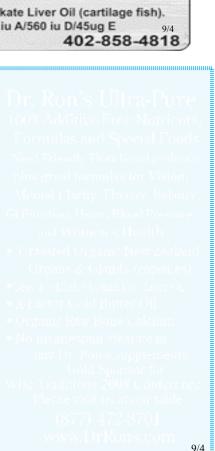
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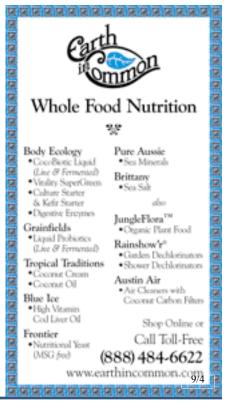
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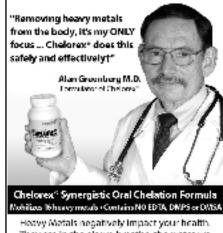
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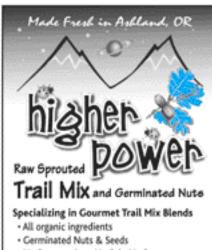
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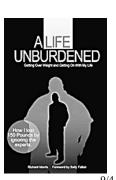
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The second manual, Iqaluich Niginaqtuat, Fish That We Eat, provides information regarding the traditional use of fish, their processing, recipes and eating enjoyment. It was compiled from the local traditional fish knowledge of northwest Alaska and 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.

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