

The FELIX Letter

A COMMENTARY ON NUTRITION

No. 121

Autumn 2002

ALL THE POOP ABOUT INNER PEACE!

Sorry, dear readers, brace yourselves for an unmentionable topic.

My epiphany came about 6 years ago, after I'd had cataract removal and lens implants and could see like a 20-year-old again. Life got better, driving became easy, colors were vivid – I still say a silent thank-you every day to the surgeon (Dr. Raymond Gardner) and staff at Kaiser Oakland.

But now I could see previously invisible smudges, dust, crumbs, hairs -- they were all over the house! (Pause, while Clara embarks on a ceaseless cleaning frenzy.) Some specks were curious--tiny dark balls, no bigger than a pencil point. I'd wipe them up, and next day they'd be back – but not in the same places.

Finally, I figured it out. "Daddy-longleg" spiders hang out undisturbed in the garage and storeroom, so occasionally a few migrate upstairs to my quarters. The little black balls are *spider poop*. I never knew spiders pooped until I got my new vision!

On a shelf below the big kitchen window I keep little vases filled with flowers from the garden. Now and then, I'll notice a growing pile of tiny black balls. I clean them off and, lo, they're back in a few hours. No spider, though. Hmmm...

Then I uncover the tiny pooper wiggling on a marigold: it's an inchworm. It eats, digests, absorbs ...and poops. I carry it to a plant outside to do its thing.

Humbly, I understood at last the *universality of pooping*. All God's creatures...

We must be the only species that suffers *embarrassment* over this function. Other than house dogs and cats, we may be the *only living beings having habitually to suppress pooping urges*. I doubt this was a problem during Paleolithic times when we hunted and gathered in foliage-rich areas. Later, when we were farm families living on green pastures, I suspect we weren't unduly constrained by nature's calls either. Inhibition has a lot to do with modern living governed by rigid school/job/social schedules and time spent confined in cars and buses. Also, by a reluctance to use unprivate bathrooms for this very personal, if universal, function -- I speak from experience.

A Plague of Modern Times

The majority of patients seen by U.S. gastroenterologists suffer from irritable bowel syndrome (IBS), its symptoms ranging from uncomfortable to unbearable. Often accompanying IBS is 'diverticulosis'—a plague

of little outpouches or sacs in the colon wall. I was diagnosed with both as a young adult, long before I learned that food allergies, intestinal yeast overgrowth, parasites, "leaky gut," faulty digestive enzymes, and a scarcity of helpful bacteria, can be factors, along with emotional tension and stress.

Allow More Morning Time!

But even after you clear up sundry obstacles to gut serenity, it still may elude you if school/work/social life seldom allows you to respond fully when your urges hit. One partial solution: Many wise folks set their alarms an hour or so earlier on mornings of school, work, or community activities, allowing time for a good breakfast and good elimination. If I had my life to live over, I'd make that a household rule, for sure.

Relief At Last!

However, age has brought a measure of redeeming wisdom. Besides my morning tablespoon of ground flaxseed, plus my evening one of psyllium husk powder, each stirred in juice or fruit sauce, I now take a 500 mg. capsule of **mastic gum** before lunch and at bedtime. Mastic, the resin from the inner bark of the pistachio tree (*Pistacia lentiscus*), was used medicinally in ancient Greece and Turkey (a) for stomach and bowel complaints, (b) to heal inflamed gums (periodontitis), and (c) as temporary fillings in a decayed tooth!

Currently, studies show **mastic** kills *Helicobacter pylorus*, the bacteria universally acknowledged just a few years ago as the true cause of stomach ulcers (*not* worry, or spicy foods). There seems to be evidence also of this infestation further down in the gut. Maybe in the gums too. Folk wisdom—it's uncanny.



In any event, I'm grateful for my release from internal preoccupation – about four blissful months now. Mastic gum capsules are available from reputable supplement companies. Some also carry a **mastic chewing gum**, which I recommend as well, so ask for these at health food stores or vitamin mail-order firms. Start your own experiment, people. Your home, too, may no longer suffer from 'ill winds that blow no good.' □

THE EXPERTS COME AROUND

Researcher and friend Paul Stitt called to tell me of a big victory for "our" side but, in truth, for everyone: In September, the National Academy of Sciences (NAS) finally put its stamp of approval on *increasing Omega-3 fatty acids in the diet and limiting the Omega-6 ones*. In a total reversal of all previous dictums, it said a **"high intake of linoleic (polyunsaturated) fat creates a pro-oxidant state which may predispose to coronary heart disease and cancer."**

Linoleic is the primary Omega-6 fatty acid and it's essential to your health, like vitamins, but it's been all-too-lavishly supplied during the past 50 years in the oils, salad dressings, and margarines that have been pushed as splendid for the heart. Paul writes: "The scientific literature has been full of reports on harmful effects of too much 'polyunsaturated fat' and not enough Omega-3 for many years...The real truth has finally made it into the official body [the NAS], which advises the FDA, and which sets the official dietary recommendation for all U.S. consumers." □

OMEGA-3s – A HOT TOPIC AT LAST!

This might be an appropriate time to announce that the only remaining copies of the little book I wrote, *All About Omega-3 Oils*, originally published by Avery, but discontinued (unwisely!) by Penguin-Putnam soon after Avery joined the publishing giant, recently were sold to me by P-P. It couldn't have happened more propitiously: I had only one copy left.

You will find in it straightforward answers on how to re-balance your Omega-6/Omega-3 intake (including food tables) to achieve the kind of protection against cancer and heart disease the NAS is talking about – and much, much more.

The booklet is easy to read and the right size, 83 half-pages of text, to give to friends and family who don't want to wade through a tome. I say (without modesty) it has a wealth of well-documented, *useful* information.

As you know, the media are issuing paeons of praise for this "newly discovered" (hah!) family of fats. If you're a longtime *FL* reader you'll recall the many years I've been reporting on the Omega-3 work of brilliant scientists, including Donald O. Rudin MD who, in 1981, described to a T how our nation's long-standing Omega-3 deficiency and Omega-6 glut would continue to decimate the physical and *emotional* health of its people.

I bought P-P's supply, so tell your healthfood or book store they're available from me at a discounted price. (The cover price is \$2.99.)

For readers and friends, the cost including shipping is \$3, or 2 books for \$5. (Cash or checks only, please.) □

TWO MORE MUST BOOKS

I learned the hard way, as coauthor of two (undersold!) books on the Omega-3s with Dr. Rudin (1987 & 1996), that success in the book business is all about promotion. (Or, as kids nowadays say: *Duh-h-h!*)

Michael A. Schmidt PhD, a clinical neuroscientist and nutritional biochemist in Boulder, Colorado, has written a stunning book, **BRAIN-BUILDING NUTRITION. The Healing Power of Fats & Oils** (2001). I ran across it only by accident, never having seen a single promotional blurb nor learned about Dr. Schmidt's cross-country lecture tours and tv appearances -- they probably didn't happen.

Yet the book is a rich fund of *practical* how-to's on what it takes to build a better "fat" brain and keep it that way, from infancy to old age. The section on trans-fats *getting into the brain* is a shocker. Dr. Schmidt writes not only about protecting against neurological diseases, and warding off depression and other mood disorders, but also how to get *smarter*. He generously credits the work of Donald Rudin, Artemis Simopoulos, Michael Crawford, and a whole pantheon of my heroes in the long effort to alert the medical community to the critical roles of the 'missing' Omega-3s.

You can order the book from North Atlantic Books, P.O. Box 12327, Berkeley CA 94712; tel: 510-559-8272, or 800-337-2665. Website: www.northatlanticbooks.com □

WHAT YOUR DOCTOR MAY NOT TELL YOU ABOUT BREAST CANCER:

How Hormone Balance Can Help Save Your Life by John R. Lee MD, David Zava PhD, and Virginia Hopkins MA, (2002, Warner Books, NY) could not have come out at a better moment in medical history. Headlines across the U.S. in July have been scaring the wits out of women who've been on standard hormone replacement therapy (HRT), i.e., Prempro. That's Premarin (horse estrogen) plus Provera (a progestin, medroxyprogesterone acetate.) Meanwhile, doctors are pulling their hair out wondering where did they go wrong prescribing the stuff, and what in blazes do they do now?

Discouraging Studies!

Gina Kolata wrote in the July 9 *NY Times*: "A large federal study of hormone replacement therapy in [16,000 healthy] postmenopausal women was abruptly halted [3 years early]... because the drugs caused a slight but significant increase in the risk of invasive breast cancer." The HRT women had fewer hip fractures and colorectal cancer, but had more heart attacks, strokes, and blood clots than the placebo group. "While cautioning that the danger to an individual woman is tiny, the study investigators say that overall, the drugs' risks exceed their benefits." (Prempro's maker Wyeth's stock promptly fell 24% after this news made the headlines.)



A few days earlier, in the July 3 *JAMA*, the effects on 2763 postmenopausal women with coronary heart disease (CHD) in the Heart & Estrogen/progestin Replacement Study (HERS) showed "no significant differences between the hormone and placebo groups in the primary outcome of CHD events (nonfatal myocardial infarction...plus CHD-related death)..." or in other cardiovascular events (e.g., ventricular arrhythmia, congestive heart failure, stroke). Final conclusion: "Postmenopausal hormone therapy should not be used to reduce risk for CHD events in women with CHD."

Then a National Cancer Institute study in the July 17 *JAMA* that tracked over 44,000 women for 19 years, found a significant increase in *ovarian cancer* in those who took just Premarin, especially if they took it for over 10 years.

Real Progesterone vs Progestins

I've written (*FLs* 76, 77/78, 79, 80, 83/84, & 86) about Dr. Lee's pioneering work with real progesterone which, although synthesized in laboratories from specific plant substances, is identical to your body's hormone. On the other hand, Provera and other progestins are different enough from the real hormone to make them patentable, but also incapable of performing many critical progesterone functions.

Drs. Lee and Zava explain how certain estrogens, without progesterone's essential balancing role, can encourage cancers.

"Estrogen is an amazing and useful hormone," they write, "to be used with great care only when necessary, in the right amounts, in its natural form (meaning that it's identical to the estrogens made by your body)."

Based on up-to-date research, they describe how the body's natural detoxifiers like glutathione work to 'sop up' errant estrogens. Powerful stuff -- mostly new to me -- and a substantial guide, for health care professionals and laypersons, on how to protect against breast (and other) cancers -- from both 'outside' estrogens and those the body makes.

The chapters on **estriol** are eye-openers, explaining how this safest of all estrogens can be used effectively, as it is in Europe. Except that, believe it or not, "Estriol isn't even listed in the *Physician's Desk Reference* (PDR), because no pharmaceutical company in the United States sells it commercially." Doctors here have to have it prepared by a compounding pharmacist! The reason? Estriol has everything pharmaceutical companies want in an estrogen, plus a good history of safety, but it's not *patentable*, hence not a giant money-maker. (Just like real progesterone.) Profits *über alles*.

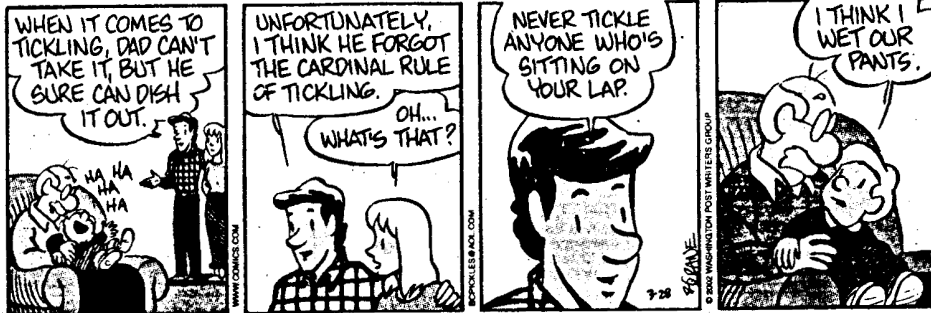
Vanity, Vanity, Clara!

I also learned that estriol applied as a cream helps to restore elasticity, firmness, and moisture content to the skin of menopausal women. (So does estradiol, but estriol does it without causing estradiol's systemic changes that may encourage breast cancer.) A 0.3 percent estriol cream also worked nicely to flatten acne scars in women *and men*. I just sent a little vial of my spit to a lab chosen by my health professional, and should get the results shortly of my saliva hormone test. Then, by golly, I'll push for a prescription for 0.3 percent estriol cream!

By the way, the book explains why saliva tests, but not blood tests, accurately reflect your body's *bioavailable* steroid hormones; and how to interpret test results.

There's a detailed chapter on foods and supplements that help to protect against breast cancer, another on creating a toxicfree environment "where cancer can't get started," and the best compilation on soy I've yet seen. No, soy's isoflavones are *not* utterly benign and can be quite harmful (among other things, to the brain!) unless used *very* carefully, more in keeping with traditional frugal Asian use.

All in all, I can't think of better ammunition than the Lee-Zava-Hopkins book provides against the fears we all have about breast cancer, and the questions on everyone's mind about hormone replacement therapy. □



A BIG FAT LIE?

Dear readers, here's one more worthy item on which to spend your hard-earned bucks. Santa Cruz radio and television host Josh Wagner has CD's available of his hour-long interview with Gary Taubes, the journalist who blew the low-fat-diet experts away with his March 2001 *Science* article, "The Soft Science of Dietary Fat." The smoke had barely cleared from their enraged nostrils when his 7856-word "What If It's All Been a Big Fat Lie?" appeared July 7, 2002, as the cover story in *NY Times Magazine*.

I listened with growing delight to Josh's interview with this articulate author and scientist who traces the not very pristine history of the low-fat diet commandments, their flawed and fragile scientific rationale. Also the harm they've produced, encouraging a vast population to become obese, "lo-fat" carbohydrate gluttons, many of whom develop type 2 diabetes that's now becoming an epidemic.

I had read Taubes' articles with interest, but I learned even more listening to him describe, with a lot of humor, how the giant low-fat edifice had been erected on a house of cards, and how basic journalistic skills made it easy for him to uncover one flaw in it after another. For instance, there never *had* been a study showing that low-fat-eating populations were healthier and lived longer than folks who ate the old-fashioned way!



He has revealing things to say about medical opposition to the Atkins (very low-carb, high-fat/protein) diet and the fat-burning ketosis it produces. Taubes discovered the 'experts' confuse ketosis with *ketoacidosis*, a dangerous condition that can happen to untreated diabetics. Ketosis, in contrast, is a normal physiologic adjustment to very low carb intake. Your body switches to its own fat as fuel, on which your body, brain and heart run very nicely, thank you!

Taubes, a husky ex-college football player, ate "lo-fat" and worked out 5 days a week for 20 years, fighting his relentless weight gain. About a year ago, he went on the Atkins diet. Let him tell you about it – it's a good story.

The Taubes-Wagner interview CD is \$12.99 including postage. Sorry, credit card orders only, to Josh, 831-423-2323.

P.S. Longtime *FL* followers may remember when I ran a photo of Josh and baby Soren, in 1988, *FL*#39. Yep, my son and grandson, respectively. □

FLAX IS ROOTED IN HISTORY

Good news keeps accumulating on the flaxseed front, according to talks and papers shared this past March at the biennial get-together of flax growers and scientists in Fargo, North Dakota (*Proceedings of the 59th Flax Institute of the U.S.*). Compared with *Proceedings* just a decade ago, the piling up of research related to human consumption of flaxseed is awesome.

Univ. of Toronto professor Lilian U. Thompson and medical colleagues who've been researching "the effect of flaxseed and its lignans on the different stages of breast cancer" for ten years, by now have many impressive animal studies. Flaxseed in the rations not only consistently reduces tumor incidence, size, and growth, but also slows down tumor metastasis.

Flaxseed and Breast Cancer

Their new work tests the effect on *women* with breast cancer. Thirty-nine postmenopausal women were diagnosed with breast cancer for the first time and scheduled for surgery. Tumor biopsies were taken, first, when the women were diagnosed, and about 40 days later at time of surgery.

Between those times, the women either got 25 grams (approx. 2-1/2 tablespoons) of flaxseed in their daily supplement of muffins, or didn't (placebo group).

In the flaxseed-muffin eaters, but not in the plain-muffin group, the second biopsy showed "significant reductions" in cell proliferation and tumor aggressiveness, "and significant increases in tumor cell apoptosis (programmed cell death)...This confirms the ability of flaxseed to reduce tumor growth observed in the animal studies."

It was a double-blind study, but I'll bet you the flaxseed-muffin women knew what they were getting. A coupla tablespoons of the stuff work like Nature's Broom – sweeps your insides clean!

Researchers haven't figured out whether to attribute flaxseed's anti-cancer effects to it's Omega-3 alpha-linolenic content, its soluble fiber, or to the fact that flaxseed is the richest source of mammalian lignan precursors that can alter estrogen metabolism. (Or to a combination of these and other factors.)

What they're careful *never* to include is flaxseed's high content of *cyanogenic glycosides*. These are seen as potential toxins which, thankfully, don't cause problems if flaxseed is eaten in reasonable amounts. I may be the only flaxseed enthusiast among nutrition journalists who thinks cyanogenic glycosides in flaxseed are not part of the problem, they're part of the *solution*, i.e., I believe they help to fight cancer. Don't hold your breath, waiting for the experts to join me.

Royal Duds

I spent a wondrous couple of hours with friends this summer at the Eternal Egypt exhibit, on loan 'till Nov. 11 from the British Museum, in San Francisco's Palace of the Legion of Honor. I learned that ordinary folks in the time of the Pharaohs wore garments made of cotton, while **linen** was reserved for royalty, dignitaries, priests, etc. In a glass case, I saw an elegant mummy mask from ~1500 BC of "a woman named Satdjehuty who was a royal attendant in the court of King Ahmose." The description said the mask was placed over the head of her wrapped mummy and was "constructed of cartonnage—**linen** cloth stiffened with plaster."

Flax was a major crop in Egypt thousands of years ago, along with cotton—valued for its seeds and oil (for food and lamps) *and* its slender stems, **from which linen thread was spun**: flax's botanical name is *Linum usitatissimum*.

The plant is interwoven with human history on many continents. It adapts to hot, cold, and in-between climates. Its oil is easily extracted and the leftover 'cake' used for animal feed. Soldiers of ancient Rome marched on rations of bread baked with flaxseed. The Chinese have cultivated it for ~ 5000 years. An Ethiopian café in Oakland where I dined specializes in traditional native cuisine that includes flaxseeds in many of its dishes. As I wrote in *FL*#69, over 66,000 tons of flaxseed are baked into breads and buns in today's Germany.

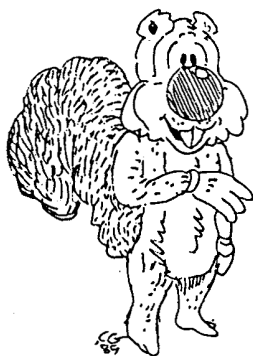
No, dear people, flaxseed is millenniums away from being a hokey fad-food. □

MORE MDs ARE PAYING ATTENTION TO LOW VITAMIN D

In a major survey from 1988 to 1994, covering households in 81 counties across the US, vitamin D status was determined in nonpregnant women, age 15 to 49 years, ~1500 of them African American and ~1400 white. The results shook up participating research groups, including the Centers for Disease Control & Prevention. *Over 42% of African American women, compared with 4% of white women, were diagnosed with "hypovitaminosis D."* (Nesby-O'Dell et al, *Am J Clin Nutr*, July 2002)

Longtime vitamin D researcher Michael F. Holick, in the accompanying editorial, believes the results would have been even worse--for the white women too-- if the 25(OH)D serum tests "had also been performed in the winter" for the women who lived in the North. The surveys had been taken in the South in winter, when the sun's D-making rays (UVB) would still have been somewhat available; and they were conducted only during summer in the North, when there was a chance of catching UVB sunlight--unlike during Northern winters.

(For newcomers to *FL* sun stories, ultraviolet B rays from the sun--the only range of ultraviolet light to activate vitamin D on your skin--are strongest at the equator, and gradually weaken toward the poles. Above 30° latitude North or South, adequate UVB light becomes increasingly chancy two to six months of the year -- yet most of the USA lies between 30 and 45° N.)



Fighting the Numbers

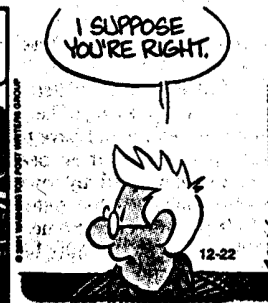
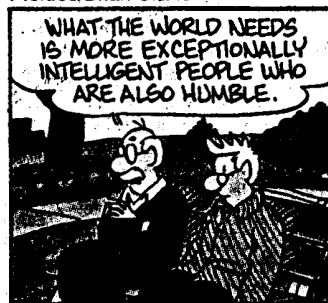
Holick also challenges the survey's parameters of vitamin D adequacy.

"Nesby-O'Dell et al. chose a 25(OH)D cutoff of 37.5 nmol/L," he writes, whereas "25(OH)D concentration of [less than or equal to] 50 nmol/L [20 ng/mL] and as high as 85 nmol/L [34 ng/mL] are required" before parathyroid hormone concentrations drop to their normal baseline values.

Vitamin D deficiency causes your parathyroid hormone levels to rise and stay high. Bone minerals and matrix are then mobilized from your skeleton. In a word, osteoporosis.

Holick says a 25(OH)D serum level of 50 nmol/L "should be the minimum cutoff for vitamin D sufficiency." On that minimal basis, he says many of the so-called healthy women in the study were really "vitamin D deficient." He's sure this would be just as true of the *men* in the surveyed households.

Pickles/Brian Crane



(CF note to long-suffering *FL* readers: I hate throwing figures at you, but some scientists say a 25(OH)D serum level below 100 nmol/L (below 40 ng/mL) indicates "hypovitaminosis D." Levels below 50 nmol/L would warrant the term "vitamin D insufficiency."

Don't ever expect researchers to agree on anything.)

The Price We Pay

But Dr. Holick, bless him, is a longtime passionate advocate for raising levels of awareness about vitamin D's great roles in the body and the penalties for deficiency. For the women in the study, besides osteoporosis, he asks, "Are there other, more insidious consequences of vitamin D deficiency for this age group? Vitamin D is essential to maximize skeletal health from birth until death...deficiency causes osteomalacia, which is associated with nonspecific isolated or generalized bone pain, muscle aches, and muscle weakness, ie, symptoms similar to fibromyalgia. Indeed, it was suggested that a majority of Danish women with symptoms of fibromyalgia had severe vitamin D deficiency and osteomalacia..."

Special Alert to People of Color!

He says higher latitudes and decreased synthesis of vitamin D appear to be associated with an increased risk of dying from *breast, colon, ovarian, and prostate cancers*. "African Americans, who are chronically vitamin D deficient, have a higher incidence and more aggressive forms of many cancers, including breast and prostate cancer. Men who are exposed to more sunlight can delay the onset of prostate cancer by [more than] 5 years. Children receiving vitamin D supplementation from age 1 year on had an 80% decreased risk of developing type 1 diabetes."

His recommendations: "It is likely that in the absence of exposure to sunlight, the adequate intake for vitamin D should be [equal to or above] 800-1000 IU vitamin D per day...Therefore, increasing our vitamin D intake or casual exposure to sunlight may decrease the risk of some of the most common cancers, type 1 diabetes, and possibly multiple sclerosis. The only way to know a person's vitamin D status is to measure 25(OH)D. Thus, it is reasonable for everyone to have his or her 25(OH)D concentration measured once a year." [My emphasis. CF]

Share this with your health care professional, but amend it by requesting **three** 25(OH)D tests, one every four months, the first year. This will help to determine safe doses of supplements for you during both high and low periods of sun exposure.

Researchers are finding stunning variations in how efficiently or poorly individuals absorb and retain vitamin D from sunlight, supplements, food. Mentor Krispin Sullivan insists **four** 25(OH)D tests are needed the first year, plus every six months the second year. Symptoms of overdose, she tells me, *are silent, yet calcium will be creeping into your soft tissues, joints, and arteries -- the same scenario as in a deficiency.* Krispin's book, *NAKED AT NOON: Understanding the Importance of Sunlight & Vitamin D*, will be out in the spring, at last!

□



Illustrations are by the late Clay Geerdes & other artists as noted.

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