QUESTIONS...& A FEW ANSWERS

In gratitude for the shower of splendid data from you readers in the form of mainstream journal articles and news clippings from all over the U.S., currently waxing lyrical about stuff like omega-3s that’s old hat to Felix Letter aficionados, I’m devoting part of this issue to questions I’m most frequently asked.

Q: Flaxseed meal: What’s the best way to get it?
A: Most health food stores and vitamin catalog firms offer both whole organic flaxseed and organic ground flaxseed (flaxmeal for short, also known as milled flaxseed). Milled flaxseed is a convenient time-saver. On the other hand, if you buy the whole seed and grind it yourself, you’ll save some money. A small inexpensive electric coffee mill grinds seeds, nuts, cinnamon sticks, etc. I run the seeds in the mill a few seconds -- just long enough to get meal that doesn’t clump wetly. A natural bristle paintbrush (dry) is useful for brushing out crumbs of flaxmeal.

Q: How much omega-3 (w3) does it have, in terms of daily requirement?
A: Because w3 content varies in different flaxseed crops, the following is a generalization, but a rounded tablespoon of milled flaxseed contains about 2 grams of ALA (alpha-linolenic acid, the primary essential w3). In FL's 94/95, based on recommendations by the insightful Japanese researcher Dr. Harumi Okuyama and his group, I suggested a day's intake of all w3's -- including EPA and DHA found mainly in aquatic foods -- of about 4 to 6 grams.

Again, based on Okuyama's and Dr. Artemis Simopoulos work (see FL's 96), this modest w3 intake will do its job in your body only if you're not drowning it with fats and oils of the omega-6 (w6) persuasion! Ideally, no more than a 3 to 1 intake ratio of w6 to w3 fats and oils allows all body functions to hum along nicely. Last page of FL's 94/95 shows foods that make it easy to achieve this ratio.

Q: How do we use flaxseed?
A: Start with one teaspoon a day. This may have a desirable, mild laxative effect, but some folks react more strongly, in which case cut back to 1/2 teaspoon. Gradually increase amount, but stay in a comfort zone. I know friends who easily handle several tablespoons a day, but I can't! And, of course, some folks are allergic to flaxseed.

You can add flaxseed to fruit juice, cold or cooked cereal, soups, casseroles, or cottage cheese. You can add it to bread dough, or to pancake, waffle, cookie or muffin batter.

Even young children do well with appropriately small amounts, generally. They tend to poop more, of course!

[From FL 48 in 1989]: "When we eat flaxseed or meal, its soluble fiber encourages bacteria normally living in our gut to produce lignan and butyrate -- substances that exert anti-cancer effects on the colon." Since then, studies show protective effects of flaxseed on mammary and prostate cancers as well.

Q: What about cyanide in flaxseed, as well as B6 antagonists?
A: Flaxseed contains cyanogenic glucosides, plus an enzyme (linase) that can hydrolyze the glucosides to release hydrocyanic acid, i.e., cyanide. Wow! Scary? Dear folks, it depends on one's viewpoint. I tend to favor that of the late rebel, Ernst Krebs, Jr., who said the cyanogenic glucosides or glycosides (also called nitrilosides) in so many natural foods enjoyed by humans, animals, birds, etc. were so essential to health that he referred to them as vitamin B17. Humans and fellow-creatures are able to subdue toxicity of small amounts of cyanide by slapping on a sulfur molecule (from sulfur amino acids). The detoxified molecule, thiocyanate, is a normal constituent of your blood, saliva, and urine.

Krebs and others said cyanogenic foods, as well as those with pre-formed thiocyanate, rather than posing toxic threats, actually (a) help to keep blood pressure normal (thiocyanate was used medically in the '30s & '40s for hypertension); (b) help to protect the gut from parasites and other pathogens (formerly used medically for dysentery); (c) help to discourage cancerous growths; (d) help to reduce anemia in persons with sickle cell genes.
Cyanogenic foods include blackberries, huckleberries, raspberries, millet, buckwheat, manioc (cassava), mung bean sprouts, alfalfa sprouts, clover, common grasses preferred by domestic and wild herbivores, and seeds of apricots and apples.

Pre-formed thiocyanate exists in many edible plants, e.g., the cabbage and broccoli family. Scientists are investigating anticancer potential in broccoli sprouts. Do you see what I mean? Are we talking sinner, or saint?

In any event, the flaxseed scientists, who don’t yet share this still revolutionary concept (but just wait a few years, readers!), tested volunteers to whom they gave 50 grams a day of flaxmeal, baked into muffins, for four weeks. There was a modest increase in thiocyanate excretion in urine, but no toxicity whatsoever. (The subjects pooped somewhat more than before.)

Now, 50 grams of flaxmeal is a whopping dose. A tablespoon of the meal weighs about 9 grams, so these folks were getting more than 6 tablespoons a day. (Talk about sweeping with Nature’s Broom.)

As to flaxseed’s anti-B6 factor, deficiency problems arise only when flaxseed or flaxmeal forms more than 12% of farm animals’ feed. A deficiency is highly unlikely to occur from your few tablespoons. But I’m a believer in daily supplemental vitamins and minerals, to prevent (unlikely) B6 loss.

**ACID-BASE SEE-SAW**

**Q:** I’ve been gradually adding more meat, fowl, and fish to my largely vegetarian diet. Will this make me lose calcium? I’m concerned about osteoporosis.

**A:** You may excrete more calcium (in urine) than before, but chances are good you’ll absorb more calcium from the gut, so your net calcium absorption can end up higher (Kerstetter et al., Am/ClinNutr, Oct ’98). Just as I was writing this, my January ‘99 issue arrived with a nice study by R.G. Munger et al. showing that in over 32,000 postmenopausal lowan women (median age 63), those who suffered hip fractures (44 women) ate significantly less protein, less animal fat, more vegetable fat and oil, and more carbohydrate than the ladies who didn’t get fractures! The 44 ate less toast, beef, lamb, or pork, too. And they were thinner than the bunch with sturdier hip bones. (We older beauties thrive on Rubenesque padding: it cushions bones and makes estrogen for us.)

**Did you know your heart prefers stearic acid, a saturated fat, as its energy fuel? Sally says new research shows saturated fats also are needed for normal bone modeling; and they reduce blood levels of Lp(a) that are associated with ominous buildup of plaque in arteries.

**Friendly Natural Fats**

Saturation comes in different molecular chain lengths. Short- and medium-chain ones are very easily digested, even by infants and invalids. Mother’s milk is high in saturated fats of all chain lengths, including medium-length lauric acid. Sally tells us lauric acid has unique antiviral and antimicrobial activity, which protects nursing babies -- nature is so smart!

Coconut oil is especially rich in lauric acid. People ate coconut, palm, & palm kernel oils for millennia, without developing a smidgen of artery blockage even though tropical fats are mostly saturated. Same is true for natural, largely saturated animal fats, and for high cholesterol organ meats, butter, and eggs. Of course, your ancestors also got plenty of omega-3s, from aquatic foods, wild game, and plants like purslane and flax.

(Note: Breast milk is super-rich in cholesterol. Infants need it for all tissues and especially for the brain.)

**Hooray for Fruits 'n Veggies!**

Here’s one secret for strong bones: you have to outsmart any attempts by your body to rob calcium from your skeleton in its effort to neutralize potentially harmful acids from high phosphorus and sulfur foods, i.e., flesh foods and grains.

You counter this by wisely consuming foods (and supplements) high in alkaline minerals. They neutralize these acids so they can’t damage delicate kidney tubules, etc. Most vegetables and fruits (even acidic fruits) provide some calcium, potassium, and magnesium to help transform phosphoric and sulfuric acids into tamed salts.

By the way, sea vegetables (e.g., hijiki, nori, wakame) are awesomely rich in alkaline-forming minerals. Here in the Bay area they’re easy to find (dried) in Asian and health food stores.

“Mexican parsley,” or cilantro, not only is loaded with alkalizing minerals but may help us to get rid of mercury that can leach out of amalgam fillings. My new habit is to keep a bunch washed and fresh in my fridge, and to chop on a mouthful (looking like Clarabelle Cow) when the urge strikes.

**MAGIC UNCRAMPING QUICKIE**

I just learned a way to stop nasty cramps in legs, thighs, or toes that may sneak up on us during sleep. Pinch together very firmly with thumb and forefinger the flesh between nose and lips. Continue pinching hard, until cramp lets up. It may take a few minutes. (Probably has to do with acupressure points but I haven’t asked the experts yet.) It’s been a lifesaver for me. Dear Abby says in her column it worked for her, too.
Commercial food purveyors who balked at switching were, and still are, crucified in CSPI’s publication, *Nutrition Action*. To this day, its routine warnings on killer heart-attack foods always beam on tropical oils and animal fats, including butter, and all foods containing them.

Now we’ve got a generation of Americans who’ve been stuffing trans-fats into their cell membranes for about 15 years. Nothing could be better for the brains and bodies of nursing babies and growing kids, right? Thanks for nothing, CSPI.

The experts and policy-setters neglected to tell us this type of heart disease was extremely rare until around 1930. That was about 20 years after the first hydrogenation plant opened in the U.S., creating irresistible white vegetable shortenings that were much cheaper than butter and, unlike lard, never spoiled. Animal fats intake plummeted: the Crisco era was born!

Donald Rudin, M.D., and I describe in *OMEGA 3 OILS* (Avery, 1996) the greatly reduced intake, as the century wore on, of traditional, really heart-protective nutrients, among them ω3’s from fish and game. Sally cites study after study, showing how deeply flawed the evidence for the cholesterol theory was and still is, and how often the research actively contradicts it! (The section on this in her book is priceless. Call PPNF to get on the waiting list for the new printing: 1-800-366-3748.)

We need gutsy truth-seekers like Sally Fallon and Dr. Mary Enig to help restore people’s confidence in time-honored foods like eggs, butter, tropical fats, and organ meats. It will be a tough haul, battling the Big Kahunas who have vested interests in keeping The Terror going.

Q: Am I making a wise choice to cut back on meat and dairy, and feed my family and me lots more soy milk, tofu, etc? Some doubts are creeping in.

A: Thanks to an accumulation of new data, I no longer think of soybean products as I once did as purely benevolent alternatives to meat-eating. I also question something I accepted just a short while ago: that phytoestrogens in soybeans are altogether benign. Well-documented cautions are cropping up in both alternative and conservative mags and Web sites. They add weight to Sally’s and Dr. Mary Enig’s powerful warnings in their book and articles.

The Chinese first cultivated the soybean thousands of years ago for its nitrogen-fixing qualities, but only began to use it as human food centuries later, not until they developed fermenting techniques to reduce soybean’s exceptionally high levels of trypsin inhibitors and phytates. In unfermented soy products, these antinutrients greatly hinder your absorption of protein and minerals. Sally says fermented soy foods such as miso, natto, tempeh, and soy sauce are largely free of antinutrients, but tofu, bean curd, soy milk, etc. are not.
(Ouch! Are any more of your or my nutritional applecarts going to be overturned?! I'm grateful my interests, unlike ADM's et al., lie only with getting at the truth.)

To me, the most chilling item in Fitzpatrick's article refers to an infant formula study in the July 5, 1997 Lancet. Professor Kenneth Setchell & colleagues at Children's Hospital Medical Center in Cincinnati, Ohio, tested the isoflavone contents of 25 samples from 5 major brands of soy-based infant formulas. The researchers then compared isoflavone concentrations in plasma, etc. of twenty-one 4-month-old infants fed as follows: seven exclusively on soy-based infant formula, seven on cow-milk formula, and seven on human breast-milk.

Findings: babies on soy got daily exposure to phytoestrogens 6 to 11 times higher on a bodyweight basis "than the dose that has hormonal effects in adults consuming soy foods." Dr. Setchell doesn't think it's funny. He writes: "Circulating concentrations of isoflavones in the seven infants fed soy-based formula were 13,000 to 22,000 times higher than plasma oestradiol [an estrogen] concentrations in early life, and may be sufficient to exert biological effects, whereas the contribution of isoflavones from breast-milk and cow-milk is negligible."

Setchell points out that "in addition to acting as oestrogen mimics, isoflavones have important non-hormonal activities." Genistein, for example, "interferes with cell signal-transduction pathways. The ingestion of high concentrations of phyto-oestrogens has adversely affected reproduction in several animal species...."

What are we doing to our babies!!

Editor Sally offers her own thoughtful comments in this issue. Fitzpatrick's scholarly spotlight on soy is invaluable. Note: You can order any article in a back issue for $2.50 from PPNF, P.O. Box 2614, La Mesa CA 91943-2614. PPNF members get 4 journals a year, 10% discount on books, video & audio tapes in their catalog, & health care professional referral service. Phone 1-800-366-3748 or Email: info@price-potter.org for information.

Easy LBNHG+ Recipes

*Low-budget, non-gluten, hunter-gatherer

Clara’s Mishmosh Mulligan!

• Lamb necks or other cheap lamb cuts with bone

And/or

• Chicken parts (organic if possible), i.e., backs, necks, wings. (If you’re using the whole bird, save thighs, breasts, giblets, etc. for later.)

Bring to boil a large pot of water containing a dash of vinegar. Add either, or both, lamb and chicken parts and turn heat down. (Some cooks remove grayish stuff that floats to top.)

Cover and simmer at lowest possible heat for anywhere from 3 to 6 hours. The idea is to soften connective tissue and bone (vinaigrettes help in this), so the broth will be filled with collageneous substances and bone minerals -- ancient remedy for arthritis and osteoporosis, folks!

At end of long simmering, turn off heat. Pour off broth into a container. Add ice cubes to broth and put container in freezer for about a half hour. Remove layer of solid fat on top, return broth to stew, resume heating.

Special Note: I am not a saturated-fat hater. On the other hand, the lamb and chicken contain enough to satisfy most needs.

Now add:

• Fancier chicken parts
• Any favorite diced starchy roots or tubers, e.g., potatoes, yams, taro, cassava

Or:

• Any favorite non-gluten grains, i.e., millet, rice, quinoa, amaranth, or buckwheat

(In Nourishing Traditions, Sally Fallon says to soak all grains overnight before cooking -- 1 cup grain to 1 cup water, plus 2 tablespoons whey, yoghurt or buttermilk. Soaking grains in acidulated water is a traditional way to improve digestibility and neutralize antinutrients such as phytate.)

Then add:

• Lots of parsley
• Your favorite veggies
• Seasoning -- your choice. I use ginger, turmeric, oregano, garlic; salt to taste; a little honey, maple syrup, or unrefined cane sugar.

Simmer another hour. Serve (with broth) in soup dishes.

If you’re an unregenerate HG type like me, and no one’s watching except other companionable HGs, you’ll chew up and swallow the softened bone ends.

LBNHG+ snacks

My daughter and son-in-law taught me these:

• Slice any raw green or yellow summer squash or zucchini into 1/4 inch slices. Spread out singly, bake at moderate heat on olive-oiled, coconut-oiled, or buttered baking sheet until golden brown. Seasoning isn’t necessary -- but some folks use garlic, salt, etc. Make a big batch -- they’re good cold or warm.

• Peel & slice raw potatoes and/or sweet potatoes into 1/4 inch slices. Spread out and bake at moderate heat on baking sheet, greased as above, until golden brown. Takes longer than for squash -- about 30-40 minutes. Seasoning optional.

Dear Beloved Subscribers!

An offset print shop in her neighborhood runs and folds each issue of The Felix Letter. Two kids across the street from her do the major stuffing & sealing at Mailin Crisis time. Other than that, the newsletter is a cottage industry exploiting the erratic and at times grudging services of a researcher, editor, Mac mayven, paste-up plodder, secretary, and cleaning lady, with no union to protect her. Her lot would be much easier if she smoked and drank, like a real writer. Instead, she worries and haunts the fridge. She tries to get out six issues a year, but can’t always. (Be grateful -- you all get way too much stuff to read!)

So, don’t panic if extra months go by sans newsletter. Eventually, you’ll get your six (or 12) issues, some as 8-page double issues. The lady has been knocking them out for almost 18 years and it’s still a labor of love. Besides, she’s hopelessly addicted to the thrill of chasing down obscure research gems, more so if they happen to ruffle feathers of Nutrition Policy Experts. Keep sending news clippings, journal articles, etc. to augment her stash. And please let her know if you’re moving (or have died, hah-hah!), because the post office will neither forward nor return misaddressed bulk- mailed Felix Letters, but throws them away, leaving her clueless.

Sure kid, anybody can subscribe to THE FELIX LETTER!!

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

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