

The FELIX Letter

A COMMENTARY ON NUTRITION

No. 108

2000

GOOD NEWS ABOUT BLUES!

Joan Mathews Larson PhD in her new book, *Seven Weeks to Emotional Healing* (Ballantine, 1999), insists that a suffering client's *biochemical repair* must be the first order of business. Without this process, she says, talk therapy and prescription drugs not only may not work but can do harm.

She learned this in the worst possible way.

"At a young age, my husband suffered a heart attack and died. Suddenly I was struggling to support three children. With all the chaos, I was slow to recognize that my teenager, Rob, was becoming hooked on alcohol and drugs. When I finally sought help for him, I assumed the 'experts' knew what they were doing. I was wrong! A very depressed sixteen-year-old spent one month in a hospital setting reviewing all the mistakes of his young life -- and it was devastating to him. Shortly after returning home he took his own life.

"In retrospect, I see the terrible harm counselors do by dwelling day after day on negative life events. Feelings of hopelessness and despair commonly result when perceived failures and weaknesses are continually filtered through a depressed brain. That Rob was unable to get the help he needed had a profound effect on me, and led me through an enormous body of research confirming how alcohol and even prescribed drugs, and/or stress, and/or poor nutrition, and/or poor absorption alter or destroy many of the natural substances the human brain needs in order to create and regulate emotions. As a result, our brains alter physically -- but the changes are expressed *emotionally*."

A Mother's Odyssey

"Too late, I began to understand the chemical relationship between Rob's heavy alcohol use and his corresponding depression. The idea that counselors could 'talk' his brain into repair began to seem idiotic....

"Eventually I began to think that many 'psychological' symptoms may really be the result of a malfunctioning brain rather than a cause in themselves....Why not try to fix what's broken? Can we intervene to prevent similar tragedies? Can we undo the damage? After doing graduate work in human nutrition, I was eager to add a dimension of physical repair to a treatment that has always been entirely psychological. This was back in 1980."

In 1981 she founded Health Recovery Center (in Minneapolis), its emphasis on "bio-repair" of alcohol abusers. In 1992 she wrote her first book, *Alcoholism - the Biochemical Connection* and, in 1997, its revised update *Seven Weeks to Sobriety*. Successful treatment at HRC -- longterm sobriety and freedom from craving alcohol - averages around 75%. In my review in 1992, *FL#68*, I wrote: "Compare it with the 20 to 25 percent achieved via conventional treatment, the only kind available in most facilities."



The Body & the Brain

By helping literally thousands of clients achieve sobriety and well-being, she honed the tools to do related bio-repair work on nonalcoholics who came for help for emotional disorders.

I personally know compassionate, insightful psychologists, therapists, and psychiatrists who've ferried countless broken individuals over the rapids to a meaningful life. Dr. Larson works to restore in her clients the *physical foundation for reasonably healthy brain functioning*. As this process takes hold, a mental health professional's work with such a client should become easier -- certainly it will be more effective.

Larson believes in 'orthomolecular medicine': using substances natural to the

body to heal it. This was Linus Pauling's concept, carried to its fullest by orthomolecular psychiatrist Abram Hoffer who in his vigorous 80s sees patients in Victoria, BC, writes, and lectures. (I had the pleasure of hearing him address a conference in San Francisco this past February.) That's why the book's carefully individualized programs for such problems as **chronic anxiety, depression, paranoia, compulsive perfectionism, or uncontrolled violent outbursts** are based primarily on *nutrients*. These are selected for their normalizing effects on the body, brain and nervous system. You won't be surprised to learn the omega-3 fatty acids are a substantial part of the process.

Protocol for Bio-Repair

Health Recovery Center (HRC) first screens each client by means of interview and extensive questionnaires; then on the basis of the findings, recommends lab tests and physicians if needed. Based on all data gathered, the client's supplement program is worked out.

Thank goodness, the book is a *self-help* opus for everyone who can't make it to HRC. Readers can start their own screening process by filling out its series of questionnaires and employing the guided supplement programs to target specific disorders. It also offers practical advice for finding physicians who understand the concepts, as well as laboratories to do recommended tests.

In today's psychiatric climate, besides the dispensing of Valium-type anti-anxiety drugs a growing tendency exists to prescribe freely Prozac/Zoloft-type SSRI's for depression. ('Selective serotonin reuptake inhibitors' keep serotonin levels artificially elevated.) Larson believes the consequences "of not probing for the underlying physical causes of depression can be severe." A young woman who was becoming suicidal even as her Prozac dosage was being doubled came in desperation to HRC. Screening revealed she worked in a hair salon around chemicals, had frequent yeast infections and chronically cold hands and feet. The tests the Center ordered confirmed a toxic *Candida albicans* yeast infestation; Hashimoto's thyroiditis "causing her immune system to mistakenly attack her thyroid gland"; and a brain allergy to the strong chemicals she breathed at work. With the help of the necessary repair program, her improvement began.

Worry-Warts of the World, Unite!

Besides offering a list of symptoms for self-testing for "generalized anxiety disorder," Dr. Larson describes hidden *biochemical* causes for this all-too-common affliction. (Several were a big surprise to me.) In addition to logical factors such as nutrient deficiencies, food/chemical sensitivities, or hypoglycemia (chronically low blood sugar), three big precipitators of chronic anxiety are *pyroluria*, *elevated blood lactate*, and *a high imbalance of excitatory neurotransmitters*. (HRC nutrient formulas in the book are designed to correct each of the above biochemical screwups.)

Pyroluria

This most intriguing disorder is caused by elevated circulating levels of kryptopyrroles, or pyrroles -- normal byproducts of hemoglobin synthesis. Too-high levels do their damage by *stripping vitamin B6 and zinc from the body and dumping them into the pyroluric's urine*. These nutrients are so vital to myriads of cellular functions that their "continual destruction can turn a healthy human being into an emotional cripple." Pyroluria "creates symptoms of inner tension and bouts of nervous exhaustion and fearfulness that can be traced back to childhood or the teen years. Without proper identification and treatment, pyrolurics slowly become loners in their attempts to avoid stressful situations....You have the opportunity now to investigate for yourself the possibility of pyroluria being the cause of your ongoing anxiety. If you score high on the test, take heart: *Pyroluria is correctable*. The important task is to identify it."

It runs in families, and pyrolurics often suffer from "fatigue, nausea, sensitivity, coldness, anemia, poor dream recall, and even suicidal depression." They tend to have pale skin because of too little B6 and zinc to produce pigment coloring. "A Caucasian pyroluric may have a china doll complexion; an African-American pyroluric, the lightest skin in the family...." "Despite the burden of this inborn inner tension, most pyrolurics display a high degree of creativity." Two who showed many of the signs were Charles Darwin and Emily Dickinson; they "chose to isolate themselves from the world before they were thirty."

Dr. Larson says pyroluria responds very quickly to the Center's nutritional treatment, described in careful detail. She says these specific nutrients have to be maintained for a lifetime in order to correct the intrinsic biochemical error.

More Biochemical Trickery!

Equally absorbing to me were descriptions of how *histamine imbalance* affects personality. The histamine you normally make "stimulates the release of the important neurotransmitters serotonin, dopamine, and norepinephrine...The result

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of too little histamine can be thought disorders like paranoia, or hallucinations that feel as if your mind is playing tricks on you...You will probably make grandiose plans but never have the energy to carry them out." Abnormally high levels of *copper* are the culprit; the HRC formula for low histamine is designed to get copper out of the body and raise histamine to normal levels.

The Other Side of the Coin

On the other hand, when histamine levels are abnormally *high* (histadelia), there is "a tendency to hyperactivity, depression, aggressiveness, compulsive behavior, and a racing brain..." Many highly successful, driven go-getters are histadelics. Drug use may be appealing because alcohol and especially opiates tend to *lower* histamine and provide some relief from the black depression many histadelics experience. Also, the "high libidos of histadelics seem to set them up for trouble," e.g., compulsion to pick up prostitutes regularly, engaging in multiple affairs, etc. An HRC formula for histadelics to decrease their histamine levels is also provided.

Questionnaires can help readers figure out if they fall into a low or high histamine profile, or neither. Fascinating!

The Violence Prone

Larson tackles a tough matter: people with superhigh tendencies towards irritability, anger, sudden violence. "Can these emotional states have a physical basis? Yes. There is mounting research indicating that people who act out in this way are not just the product of too much poverty, too little nurturing, and other social/psychological problems. There are biochemical triggers in some of us that make outbursts of anger and violence predictable."

In addition to poor diet there can be chemical sensitivities, hypoglycemia, malabsorption, etc. *Severe imbalance of trace metals* turns up regularly in specific categories of violent behavior, as established by William Walsh, PhD, and fellow-researchers who examined hair mineral levels in thousands of prisoners and civilians.

For example, the largest category included "Type-A" people, who were episodically violent but felt remorse following an "explosion." All Type-As examined

showed elevated lead, cadmium, and other toxic metals; 40% were pyroluric; 30% were hypoglycemic; all had abnormal histamine -- either too high or too low.

Larson writes: "Treatment for Type A's involves correcting abnormal levels of minerals and toxic metals, and testing for pyroluria, hypoglycemia, abnormal histamine levels, and malabsorption. *Type-A children improve substantially (85%) within twenty-five days of treatment.*" [Emphasis mine. CF]

I believe these concepts have enormous relevance to life in the U.S. today.

A Path to Follow

Consider what happens, Larson writes, "when nonaddicted persons go to their psychiatrists complaining of anxiety, irritability, depression, exhaustion, insomnia, or fearfulness; usually they get *prescription drugs* to cover up their symptoms.

"The bottom line is the same: *Our bodies--including our brains--are not designed to function well on toxic foreign substances.* These drugs may relieve or mask over your misery on a temporary basis, but many have long-term side effects and become less able to deliver relief unless the dosage continues to increase. No one wants to become a lifelong user of psychiatric drugs if there are other viable options. And believe me, you are about to discover the *mother lode* of options!"*

Dr. Joan Mathew Larson is a devoted innovator of therapies that are working for thousands of recovered alcoholics plus a

*A surprising bonus is the extensive last chapter in which Larson explores "Rewinding the Aging Clock" by means of supplemental hormones. Some of these--melatonin, DHEA, pregnenolone, progesterone cream--are available over the counter, others (testosterone, estriol, thyroid, etc.) only by prescription. Larson, just entering her 70s, is sanguine about their potential for strengthening the immune system and slowing down safely the wear and tear of aging. I've seen, experimented, and read enough to largely agree. She also is enthusiastic about "the Lazarus effect" of human growth hormone, offering amino-acid-based formulas for stimulating release of your own body's (endogenous) supply. Also described are current (very expensive) FDA-approved forms of exogenous growth hormone for *twice-daily injection*. This latter is not my cup of tea...I visualize a not so attractive grasping for eternal youth, if not immortality, by legions of well-heeled folks, who may end up getting their wish but outliving their usefulness--and their families and friends. Let's not fight natural cycling too ferociously!

growing population of emotionally restored clients. Don't be surprised at the absence of the concepts she upholds, or the fierce opposition to them, in most treatment settings. I suspect it's the old story of those with vested interests feeling threatened by ideas they should welcome.

Health Recovery Center can be reached at 1-800-554-9155 or 1-612-827-7800. *Seven Weeks to Emotional Healing* is available at most book stores, or can be ordered at 1-800-247-6237, the same telephone number for ordering HRC repair formulas. □

THE FRIENDLY FATS

In less than two decades, omega-3 (w3) fatty acids have become thrilling bywords in medical circles—a far cry from the “huh?!” (or yawn) elicited in the early years. This January *The Am J of Clinical Nutrition* devoted a supplement of Vol. 71 to “Highly Unsaturated Fatty Acids in Nutrition and Disease Prevention.” I urge all health workers to read it, since what I'm describing is only a tiny smorgasbord, with researchers omitted.

•First off all, statistics show *we're not eating nearly enough w3 EPA and DHA* in the U.S. Strategies to remedy this include increasing fish consumption 4-fold (we may have to rely more on aquaculture, i.e., fish farms); and enriching animal and poultry feed with EPA and DHA.

Good for Your Heart

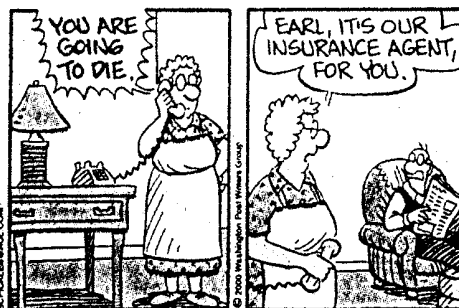
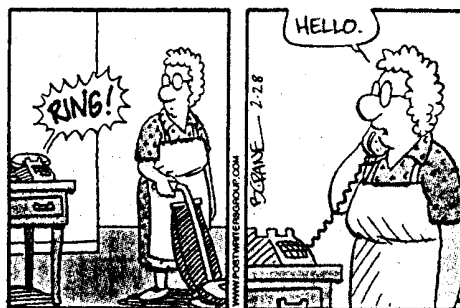
•Very encouraging research shows these same long-chain polyunsaturated fatty acids, “LCPUFAs,” *reduce vulnerability to ventricular fibrillation*, a life-threatening heart arrhythmia that's a major cause of out-of-hospital cardiac arrest, i.e., sudden death, often in persons who don't have blocked arteries.

•In general, intake of w3s is associated with decrease in cardiovascular disease. For instance, w3s are needed to maintain normal activity of the endothelial lining of blood vessels. Endothelial dysfunction results in white blood cells (leukocytes) sticking to the lining—a process sparking a chain of inflammatory reactions that can initiate atherosclerosis. The w3s also increase *elasticity* of arteries.

•With w3s' preventive role in cardiovascular disease well-established, there's now growing evidence that second heart attacks can be avoided if w3s (including alpha-linolenic acid) are amply supplied after the first attack.

•Even though young folks in Japan are eating less fish than their parents and grandparents, Japan's ratio of w6 to w3 intake is a low 4 to 1, compared with 10-20 to 1 in the U.S. Japanese have the longest life expectancy and one of the lowest heart disease rates in the world. Japanese-Americans, however, have lost these advantages. A comparison of plasma lipids, reflecting dietary intake, offers some clues:

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%w3s in Plasma Lipids	w6 to w3 Ratio
Japanese	10% 3
Japanese-Americans	3% 12
Other Americans	2.5% 16

Babies & Breast Milk

•Benefits from including w3 DHA and w6 arachidonic acid (LCPUFAs) in formula for *pre-term infants* are well established. Several manufacturers in Europe and Japan, but not U.S. as yet, have added these to pre-term formulas. Debate continues on whether *full-term babies* do better (visually, IQ-wise, etc.) when these LCPUFAs are added to formulas that routinely contain PUFAs w3 alpha-linolenic and w6 linoleic—the argument being that full-term infants can convert these to the LCPUFAs, respectively DHA and arachidonic acid. The gold standard, of course, is breast milk which contains *all* these PUFAs and LCPUFAs!

•Researchers expressed this wise caution: Because LCPUFAs of breast milk appear to be dependent on the mother's *dietary intake* of LCPUFAs, it seems prudent to ensure that breast milk that's used as a guide to dietary recommendations for infants be from mothers *who include some fish in their diets*.

•Not unexpectedly, when moms got w3 DHA supplements, their plasma phospholipids *and* breast milk had higher amounts of DHA. This supports other evidence that milk DHA is derived from the mother's plasma rather than from direct synthesis in her mammary gland, and adds fuel to the idea that supplementing mom with DHA is the most reliable way to increase it in her milk.

Benign Effects

•Anti-inflammatory actions of w3 EPA and DHA are beneficial in ulcerative colitis and Crohn disease; rheumatoid arthritis; psoriasis; and Ig nephropathy, a kidney disorder.

•The w6 DGLA not only is the precursor to benign, antiinflammatory 1-series prostaglandins, but may act as a competitive inhibitor of highly inflammatory prostaglandins and leukotrienes made from w6 arachidonic. Evening primrose oil

supplements containing GLA (precursor to DGLA) confer benefits in rheumatoid arthritis and atopic eczema; and improve nerve function in diabetic animals and humans.

Clearly, all of us will reap rewards now that research on these fats has earned a high priority in medical agendas. □



BE K-K-K-KAREFUL!

After checking labels in my (obscenely full) supplement cupboard, I discovered none of my multi's contained vitamin K. The assumption is we get plenty from leafy greens and our kindly gut flora will make up any deficit. But information from the Nurses' Health Study, which examined diets (via food-frequency questionnaires) of over 72,000 women ages 38 to 63 years, found that those with the lowest intake of vitamin K had significantly more *hip fractures* than the women who had high intakes (Feskanich D, Weber P, et al. *Am J Clinical Nutrition*, Jan 1999, Vol 69: 74-79).

Vitamin K's classic role involves the synthesis of prothrombin and several other blood clotting factors, i.e., it helps keep us from bleeding to death. But newer research points to a basic role as well for vitamin K in **bone-building** (technically, gamma-carboxylation of bone proteins). Vitamin K may further influence bone metabolism by decreasing calcium excretion in urine, and/or by inhibiting metabolites that resorb (break down) bone.

Lettuce, broccoli, spinach, cabbage, kale, and other greens are the main contributors to dietary K. Apparently it's not safe to depend on gut bacteria to make enough K for us.

The 1989 RDA, based on blood coagulation tests (K's role in bone-building was not yet considered), is one microgram per kilogram of body weight. That translates to about 80 micrograms vitamin K for a 175-lb man; and 65 micrograms for a 140 plus-lb woman.

Despite being a big greens muncher I've decided to add vitamin K to my humongous stash. The dose I found is in milligrams, lots bigger than the minimum requirements, but my 1989 RDA text says "toxic manifestations have not been observed" when large amounts are ingested over an extended period. □

TO ERR IS HUMAN, BUT ENUFF IS ENUFF, CLARA!

Like most semi-literate people I suffer from piles: endless piles, alas! of unread, half-read, read-but-needing-to-be-sorted stacks of journals, studies, clippings, etc. to fill my hopelessly overflowing files. Out of these piles/files, I unearth and transmit invaluable comments, as *FL* readers know, without which surely none of you would be alive today. Remember, I was the first to report that male masturbation did *not* cause insanity (nor hair to grow on the subjects' palms), although the study *did* note the perilous loss of zinc involved (*FL* 67, 1992). (And who can foresee the consequences if this naughty practice is continued unremittingly, shame on you!!...)

To the point, once in a very great while my overflowing piles/files cause me to stumble, accuracy-wise. Okay, I made some more mistakes, so sue me! Author-journalist-TV consultant Robert G. Houston chided me (the nerve!!) for certain misrepresentations in *FL* 107.

So Here's the Right Stuff

For instance, I repeatedly referred to "cyanogens" and "nitrilosides" as foods or plants. Cyanogens and nitrilosides are neither, but refer rather to certain *chemicals in plants*.

Houston writes: "'Nitrilosides' is a term coined by the late biochemist Ernst T. Krebs, Jr., to refer to the beta-cyanogenic glycosides, which are *phytochemicals* - *not plants*. Your readers deserve a correction." (Okay, okay, Robert, I'll be good.)

Now we come to my big goof:

"You also state that 'an apricot kernel may release 1.6 milligrams HCN; and 5 - 10 apricot kernels from 8 to 16 milligrams HCN.'

"The correct figure is 0.5 mg per kernel and 2 to 5 mg for 5 to 10 kernels." [Emphasis mine. CF]

Houston explains: "Apricot kernels normally contain no free HCN but rather amygdalin, a nitrilside, which with special enzymes can be broken down to yield up to 1/17th its weight as HCN.

"Apricot kernels weigh about 400 mg each and contain up to 2% amygdalin, or 8 mg per kernel; 8/17th = 0.5. Thus the figures you gave are impossible."

(Picky, picky! At least I over- rather than underestimated any potential toxicity.)

Chastened, I now offer readers Houston's favorite flaxseed yummie:

"Flaxseeds, by the way, have up to 0.5% linamarin (phaseolunatin), the same nitrilside present in cassava. My delicious recipe is to grind 3 Tbs of flaxseeds in a nutmill 10 seconds, then put the powder in a big cup and mash in a banana, then spread it on toast."

Some folks may develop overenthusiastic peristalsis from 3 tablespoons of flaxmeal, so adjust dosage accordingly. (I make my toast from nongluten rice bread -- tastes just fine.)

Getting Down to Brass Tacks

To new readers who may feel lost by any of the above, the point I tried to make in *FL* 107 was that when an assortment of tasty plant foods containing nitrilosides are made a regular part of the diet, this may cause your plasma thiocyanate (a normal constituent of blood, saliva, and urine) to reach levels which may:

- (1) show promising regulatory effects on your blood pressure;
- (2) help to reduce hemoglobin sickling in your red blood cells, and lessen anemia, if you carry homozygous sickle cell genes.

In a logical world, these phenomena would inspire plenty of well-funded research, but it's not happening yet. Luckily, you have the personal option of incorporating foods like the following into your daily fare: apricot kernels, apple seeds, berries, flaxmeal, cruciferous vegetables (broccoli, cabbage, kale, collards, etc.), beans, peas, buckwheat, millet, and if you can find it in your markets, cassava (manioc). Eaten regularly along with good protein and iodine sources, these should help maintain optimal plasma thiocyanate levels.

In his 'corrective' letter, Robert Houston reminded me that the 1974 study he sent [described in *FL* 107, showing thiocyanate to be far and above the most effective in vitro antisickler of hemoglobin] was not only presented at the first national symposium on sickle cell disease, sponsored by the National Institutes of Health (NIH), but was conducted by NIH scientists. "Two of them, Murayama and Hasegawa, are legendary in sickle cell research."

Why hasn't our government-financed NIH followed this up?!! To date, no safe longterm treatment for sickle cell disease exists.

An Anticancer Connection?

There long have been "hints" of protection by the thiocyanate-yielding foods against the big C. Interesting, because scientists here and in Japan¹ are actively investigating this aspect in chemicals known as "isothiocyanates" which are versions of thiocyanate, some found ready-made in broccoli and other cruciferous vegetables. When you eat these veggies they help to raise your own plasma thiocyanate levels, just as eating the nitrilside-containing plant foods does.

Oh No, Not More Corrections!

In *FL* 107 I said my brother had been a U.S. naval lieutenant JG (junior grade) in action in the Pacific theater during WWII. He's patiently advised me that in the last year of his service he became a *full* lieutenant. Sorry, bro!

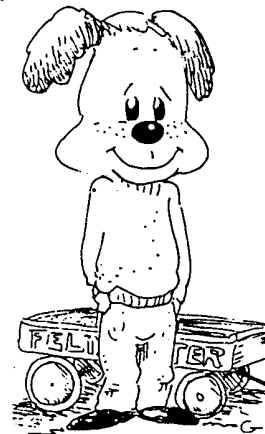
Words of Wisdom to Fellow Piles Victims

Always search *underneath* a pile before you file it away. That's where you'll see the check/article/letter you've been hunting for all month. □

¹ (a) Zhang Y, Kensier TW, et al. Anticarcinogenic activities of sulforaphane and structurally related synthetic norbornyl isothiocyanates. *Proceedings of the Natl Acad of Sciences of USA*, 1994, Apr 12, 91(8):3147.

(b) Sugie S, Okamoto K, et al. Inhibitory effects of benzyl thiocyanate and benzylisothiocyanate on methylazoxymethanol acetate-induced intestinal carcinogenesis in rats. *Carcinogenesis*, 1994, Aug. 15(8):1555.

(c) Smith TJ, Hong JY et al. How Can Carcinogenesis Be Inhibited? *Annals of New York Acad of Sciences*, 1998, 768: 82.



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

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