

## OF MICE 'n MEN 'n CATS

When Robert, a softhearted idealist, decided to give up flesh-eating in any form, he made the mistake of attempting to convert his cat to his lofty principles. I tried to tell him it was a lost cause. Kitty not only turned up her dainty nose at tofu casseroles, but kept sneaking out to hunt field mice. Afterwards, she would drag her prey through the house and drop it, partially consumed, at her master's feet in what Robert gloomily interpreted as an act of defiance, but which I thought to be a rather sweet attempt at sharing.

I explained to my inconsolable friend it wasn't a matter of kitty's moral turpitude but of biological survival. A cat needs to get lots of Omega-3 fatty acids from its food -- eventually to become intrinsic parts of its brain, flexible body, keen eyesight ---but it can't do what people, dogs, rats, and other omnivores can. A cat is unable to convert Omega-3 alpha-linolenic acid into the highly polyunsaturated Omega-3's, principally EPA and DHA, which kitty's tissues require.

While alpha-linolenic comes primarily from plants, EPA and DHA aren't found in terrestrial plants, only in those growing in bodies of water. The best sources? All fish and shellfish supply ready-made EPA and DHA. The fatter the fish, the higher the EPA and DHA content. Meat and poultry vary widely in EPA and DHA levels, but all *organ meats* are far richer in these Omega-3 fatty acids than muscle.

A healthy cat goes for fish, liver, melts (spleen), kidneys, etc. and for little rodents containing all of the above. Kitty was only following her instincts, but a disillusioned Robert gave her away to an unregenerate hamburger-eating buddy. When we last touched base, Robert said he was wooing a vegetarian lady who relished his tofu casseroles.

By the way, some of us humans may be a little like cats, in that we're not efficient at converting alpha-linolenic to EPA and DHA. Personally, just in case, I cover all bases by getting my alpha-linolenic from flaxmeal, flax oil, Canola oil, chia seeds, walnuts, chestnuts, and beans; while my major EPA and DHA suppliers are fish, shellfish, liver and, on occasion, fish oils. □



## WISE & WONDERFUL

George Meinig, D.D.S., F.A.C.D., is that rare bird, a dentist who believes nutrition and natural healing methods have much to do with the health of the mouth, let alone the rest of the body. His book "NEW"TRITION reflects nearly fifty years of research and work with patients. Meinig's healthy skepticism about Big Business medicine is fueled by the benefits he's observed over the years from alternative healing approaches. He emphasizes the richness and variety of what anthropologists call a "hunter/gatherer" diet, i.e., the foods that kept pre-industrial peoples healthy until traders "civilized" them with sugar and white flour.

Here are examples of the book's down-to-earth question and answer format, taken in part from hundreds of columns he's written for an Ojai, California newspaper:

"My baby is often fussy with colic. This seems to be a common problem of infants. Is there something I can do to stop such distress in my baby. R.D.

"Dear R.D: For the baby that has colic, I suggest the [breastfeeding] mother try personally taking vitamin B6 as a supplement. Improvement in the baby is usually noticed by the next feeding or two.....

".....Acupuncture treatment using finger pressure instead of the needles is frequently helpful in stopping a colic attack. Place your index finger and thumb in the web of the hand between the baby's thumb and first finger and press your thumb and finger together with firm pressure, but not tight enough to be painful. If possible, hold both the baby's hands in the same way at the same time for about five minutes. This method is called acupressure. It uses the Chinese large intestine #4 acupuncture point, also called the Hoku point...."

For me, there was something new on every page. For instance, I never before saw a fully satisfying answer to the question of whether we should eat liver until I read the following:

"I have always believed that beef (or calves) liver was a good source of protein and iron. But questions have been raised about the effect of all the chemicals fed to cattle. Do these chemicals accumulate in the liver? What effect do the toxins and impurities still in the liver have on us who eat it? M.B.

"Dear M.B.: Your very good question is being bandied about with much talk and little research to back it up. It is quite true that one of the functions of liver is to detoxify objectionable substances.

".....To imply that the liver is actually a storehouse of toxic materials isn't really true. It is the way station detoxifier.

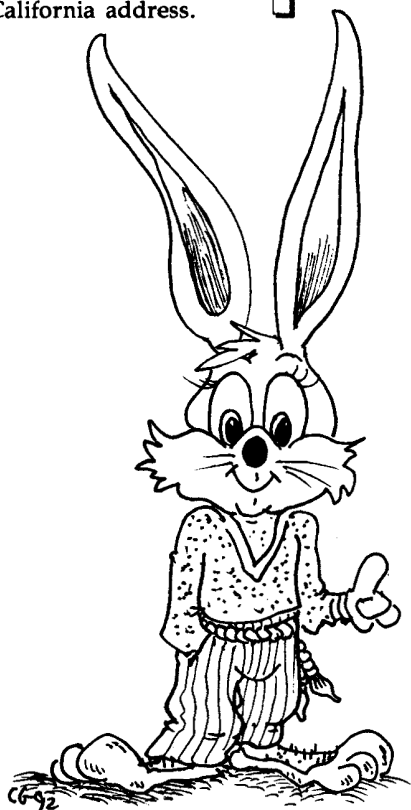
"The liver is a great gateway into our body--materials seeking entrance or forced upon it undergo certain selective action. When chemicals or harmful putrefaction compounds arrive in the body and enter into the bloodstream, they are shunted to the liver where they undergo a number of detoxifying steps. The less toxic substances that are formed are put into the blood circulation where they are eliminated by the kidneys,

lungs, and skin. While it is possible, at any moment, for a particular liver to contain some detrimental substances, one must balance that against the good it does nutritionally. Of all the body parts, liver furnishes the most beneficial nutrients. It is the richest source of B12 and vitamin A, choline, inositol, lecithin, iron and copper. It also has generous amounts of most other vitamins, minerals.

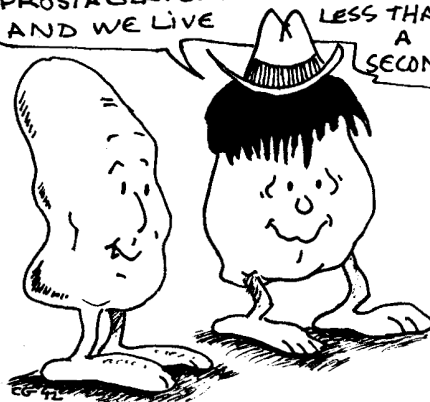
"During the majority of illnesses it is the one food that most helps body defenses in effecting rapid recovery. [Emphasis mine. CF] Many cases of anemia that do not respond to iron treatment promptly resolve when taking liver two or three times a week....

"While I am disturbed and upset by the way our food animals are fed to produce weight, not food value, one must remember it affects the total product not just the liver. In other words, toxins ingested will be present in all parts of the animal. I am personally more afraid of the lack of nutrients my diet will suffer by not eating liver than the counter effects of toxic products it might have. My family and I have found it to be the one best food to rapidly reverse the effects of the various common illnesses that occur."

"NEW"TRITION can be ordered from Bion Publishing, P.O. Box 10, Ojai, CA 93023, tel: 805/646-3096. \$12.40 plus \$1.50 shipping. Add 78 cents sales tax if book is going to a California address. □



You ENDORPHINS! ALWAYS BEEFING. YOU OUGHT TO BE A PROSTAGLANDIN. SO MUCH TO DO LESS THAN A SECOND!



#### MOLDY SOIL IN HOUSE PLANTS?

According to the Jan.-Feb. issue of *Allergy Alert*, a layer of pea gravel or ground grapefruit seeds on top of potted soil helps to discourage mold. (Interestingly, commercial extracts made from grapefruit seeds, available from most healthfood stores and catalogs, are being taken internally to combat Candida yeast infections and intestinal parasites, and applied externally for funguses and bacteria.) Sally Rockwell, editor, observes: "I have been controlling the mold on my plants for years by watering them with Pau D'Arco tea, and then spreading the leftover tea leaves (or bark) on the soil." Pau D'Arco tea, another natural enemy to combat external and internal mold or fungus infections, is available as well from healthfood stores and catalogs. *Allergy Alert Newsletter*, P.O. Box 31056, Seattle, WA 98103. □

#### DIARRHEA DIARY

Medical research reports are hardly known for their frolicsome attitude, so after 18 years of reading the prim, no-nonsense *American Journal of Clinical Nutrition*, it shook me no end to come across this study in the March issue: "Defining and Reporting Diarrhea in Tube-Fed Patients---What A Mess!"

I can only salute the dedicated--not to say martyred-- researchers from University of Pennsylvania's School of Nursing who for three months around the clock had to collect, examine, and interpret the data. I regret to report the results were inconclusive. □

#### ANOTHER NUTRIENT CATS CAN'T MAKE: TAURINE

The amino acid taurine is popping up everywhere in research literature. While cats don't synthesize it very well, rats and mice can make taurine like crazy from the amino acids cysteine and methionine in their food--so, again, in order to survive, cats have to find foods containing ready-made taurine, along with EPA and DHA. (Another perfectly good motive to go after mice, right?)

Can we humans synthesize taurine? The answers aren't all in. Some studies suggest we can't make it (from cysteine or methionine) any better than cats can. Other research suggests we *can*. However, all scientists agree newborn and premature babies cannot make enough, so until infants mature a little they must depend on mother's milk or taurine-supplemented infant formulas.

Taurine is beginning to feel to me like a long-sought for piece of the nutritional jigsaw puzzle--somewhat the way the Omega-3 fatty acids did when I first read Donald O. Rudin, M.D.'s startling insights almost ten years ago. Here are several of taurine's known roles, some of it gleaned from quite recent research.

- Combines with cholesterol to form bile acids for digestion of fats. Taurine may help to prevent formation of gallstones by keeping bile cholesterol soluble.
- High levels in retina of eye maintain the retina's structural integrity. Protects against macular degeneration. Improves night vision.
- Anti-epileptic effect. Abundant in brain, where it's thought to have anti-excitatory role, i.e., a calming effect.
- Lowers blood pressure, possibly by inhibiting sympathetic nervous system activity which raises blood pressure.
- High taurine levels normally in heart, where it helps prevent arrhythmia (irregular heartbeats) and congestive heart failure. Strengthens heart contractions.
- May regulate flow of calcium ions (possibly other mineral ions) in and out of each cell. Especially important in the heart's actions.
- Enhances the effect of insulin in regulating blood sugar.
- Reduces platelet aggregation, i.e., lowers tendency for abnormal clotting associated with strokes and heart attacks.
- Increases motility of sperm.
- Thought to have protective anti-oxidant effect in tissues where it's abundant, i.e., the eye, brain, heart, white blood cells.

♪ I'M CLARA FELIX AN'  
I'M HERE TO SAY  
YOU NEED YOUR VITAMINS  
EVERY DAY.  
♪ IF YOU TAKE YOUR  
B, AN' C AN' E  
YOU'LL BE AS HEALTHY  
AS A HONEY BEE! ♪



— NUTRI-RAPPER —

### A Role for Taurine in Immune Power?

It's long been known that while cytotoxic chemotherapy and radiation destroy cancerous tissue, they also create serious weakening in a patient's immune system. Scientists from Harper Hospital, Wayne State University, Detroit, reporting in the March *American J. of Clinical Nutrition*, say they may have a clue [Desai et al.].

Normally, they say, taurine is the most abundant free amino acid in white blood cells and blood platelets, thus is an integral part of any defense against viruses, bacteria, cancer cells, parasites and other foes. Chemotherapy and/or radiation, they found, caused a tremendous **drop** in the cancer patients' taurine levels, while not affecting other plasma amino acids.

In 1968, Japanese scientists reported that supplements of taurine improved survival in mice after radiation, and hastened the mice's recovery from low levels of white blood cells. The Detroit researchers speculate that intravenous feedings of patients after chemotherapy fail to speed up recovery *because the solutions don't contain taurine*. In the cautious language of scientists, they suggest "further studies are needed" to see if taurine supplements would strengthen the immune system by allowing white blood cells to rebuild.

I say: Why wait? Taurine normally is present in large amounts not just in our white blood cells and platelets but in the eyes, brain, and all intracellular fluids. Just because it's only recently come to the attention of medical science in the U.S.

doesn't make it any less valid for human functioning.

### Anecdotes About Taurine

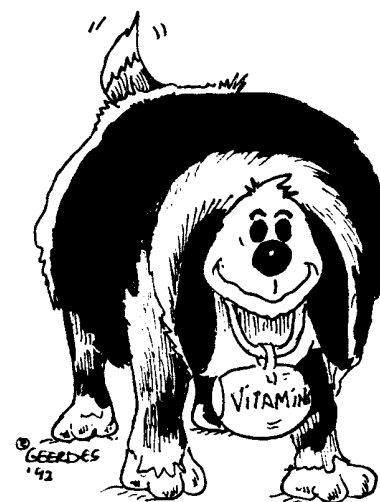
Here's what I've gathered from the experiences of alternative-health colleagues, friends, and what I've observed personally. No double-blind studies, no hard evidence—just a pooling of impressions. They add up, however, to something worth sharing with readers.

- Clinical nutritionists are finding that a number of clients with chronic insomnia who take from 500mg to 1000mg taurine at bedtime are falling asleep sooner, sleeping more soundly, dreaming more vividly, sleeping longer.
- Some women of senior years who have had to wake up to urinate at night (a common problem with aging) are sleeping through, sometimes as much as 8 or 9 hours—a record for them!
- A number of persons have observed an unanticipated but very welcome improvement in firmness and completeness of bowel movements.
- A clinical nutritionist thinks that taurine may be important to healthy thyroid function. Conversely, low thyroid may be one reason some people don't convert cysteine or methionine to taurine. The answer for her? Taurine supplements (500mg - 1500mg a day), together with thyroid hormone, helped to shrink her goiter (enlarged thyroid gland), whereas thyroid hormone alone did not.
- This same nutritionist finds that taurine is helping patients with a variety of mucus membrane problems: allergies, dry eyes, sensitivity to smoke from people's cigarettes. Her theory: Mucus membranes throughout the body—including the lining of the digestive tract—function much better with optimum taurine levels.
- Women may not synthesize as much taurine as men do. Theory: If their dietary intake of taurine is low as well, this may be one reason women are more susceptible to gall bladder disorders than men, since taurine keeps the cholesterol in bile soluble thus less apt to form stones. Some women are reporting relief from gall bladder pain a day or so after beginning taurine supplementation.
- A clinical nutritionist tells me the sleep benefits provided by taurine supplements (500 - 1500mg) are helping patients overcome their dependency on Valium.
- Several of her older women patients were unable to maintain adequate zinc levels for proper healing, in spite of zinc supplementation. When they were given taurine, their zinc levels finally rose to normal.
- There are reports that taurine supplementation may improve IQ's of children with Down's Syndrome.

**T**aurine is a natural component of the body.

A large helping or two of clams and oysters could provide somewhere in the neighborhood of 1000 mg of taurine, so the 500- 1500mg suggested by a number of clinicians appears reasonable as a supplement.

Like the Omega-3 fatty acids EPA and DHA, taurine is most opulently supplied by marine creatures, especially clams, oysters, mussels, squid, octopus, and abalone. Although all animal foods contain it, taurine appears to be missing from terrestrial plants —just like EPA and DHA.



NUTRI-DOG

### A Felix Insight---Sound the Trumpets!

**B**ut hold a sec. What about *marine plants*?

After all, they're the only plants that contain EPA and DHA. I checked my invaluable **VEGETABLES FROM THE SEA** (by Japanese scientists Seibin & Teruko Arasaki) for amino acid content of sea vegetables. You guessed it—lots of taurine in edible sea vegetables (algae) such as kelp. Here on the west coast there are many Japanese restaurants and specialty food shops featuring a variety of sea vegetables. Even the least adventurous of us have enjoyed a Japanese "sandwich" of rice, pickled vegetables, and shrimp or sushi wrapped in beautiful paper-thin dark green sheets of 'seaweed.' Nori (actually Asakusa-nori) belongs to a marvelous species of red sea algae, about 10-30 centimeters in length when growing in the sea, known as *Porphyra tenera*. The authors note under their description of *Porphyra tenera*: "Tenera means soft. The most delicious of all *Porphyra*." It not only is one of the most popular sea plants, it has one of the highest taurine contents.

## For Vegetarians & Folks Who Don't Eat Seafood

Remember, there's no taurine in land plants. But now a whole world of taurine-rich edibles await you! With a few recipes--check your library or bookstore for Japanese and other Asian recipe books--and a sense of adventure, you're all set.

I often snip part of a paper-thin sheet of Nori into thin strips and add it to hot soup five minutes or so before serving. A sheet of dried Nori can be lightly toasted and crumbled to be served on rice--delicious! Like Hijiki, Kombu, Wakame, and dozens of other edible sea veggies, Nori is rich in minerals, amino acids, vitamins, and sitosterols, and is soothing to the gut. At least as long as recorded history, the Japanese and other coastal and island people have cultivated and harvested sea vegetables, using them for industrial and medicinal purposes, but mostly enjoying them as daily fare.



*Could a high taurine content, coupled with high intake of Omega-3 fats in their sea-based diet, have something to do with the great longevity of the Japanese people? their low cancer rate? their comparative freedom from heart disease?*

A baby born in Japan last year could expect to live slightly longer than 79 years, the U.S. Census Bureau says--the longest of any country in the world. (A U.S. baby born last year could expect to live 75.7 years.)

And the Japanese baby had the best chance of any to live through its first year. Infant mortality rate was only 4.4 for every 1,000 live births. (Of U.S. babies, 10.3 out of every 1,000 died in their first year.)

Of course, many factors besides diet figure into the above statistics. But my job is to explore possible connections to nutrition. More than ten years ago, Donald O. Rudin, M.D. followed his hunch about the Omega-3 fatty acids. Although they were dismissed as inconsequential in most textbooks, Rudin concluded the Omega-3's actually were key molecules in regulating our circulatory, visual, nervous, and immune systems. He was the first U.S. scientist to say we were suffering from a serious dietary deficiency, compared with traditional diets of 80-100 years ago. This undetected, unacknowledged deficiency, he asserted, was a big factor in the rise of heart disease, cancer, mental illness, and many other non-infectious ailments in modern times. (It had its historic parallel, Rudin said, in the loss of B vitamins produced by industrial milling of rice and other grains, which, beginning a century or more ago, contributed to the deadly deficiency diseases beri-beri and pellagra.)

Dr. Rudin's theories received short shrift from the honchos---until international research into the spectacular cardiovascular benefits of fish oils exploded on the medical scene. As of now, hundreds of studies confirm that Omega-3 fatty acids are indeed essential to human health and show healing or preventive properties not just in the heart and arteries, but in such "unrelated" illnesses as migraine headaches, kidney disease, rheumatoid arthritis, psoriasis, ulcerative colitis, diabetes, and cancer---just as Rudin predicted.

Deficiency diseases can be cured (or prevented) *only* by the missing nutrient(s). Vitamin B-1 (thiamin) cured beri-beri. Niacin cured pellagra. Less than 55 years ago, when these vitamins were first isolated, synthesized, and tested on patients, the nutrient connection finally was confirmed. Vitamin B-12 wasn't discovered until 1948. In other words, biomedical nutrition is a *young* science. Taurine looks like a comer. Who knows, a breakthrough may be just around the bend. □

## MEDICAL OATHS

Rheinhold Aman, who publishes a scholarly journal, *Maledicta, The International Journal of Verbal Aggression*, provided these samples of antique Yiddish curses: "May you inherit three shiploads of gold--and it shouldn't be enough to pay your doctor's bills." Also, "May you become famous---they should name a disease after you!" □

## FLAXMEAL & ARTHRITIS

Subscriber M.B. of New York City thought readers might be interested in a letter he'd sent in February to the Omega-Life, Inc. people who put out one of the few commercial products I plug, "Fortified Flax," formulated by researcher Paul Stitt. It's made of ground organic flax meal-- an unusually rich source of lignan (a fiber with known anti-cancer properties) and Omega-3 alpha-linolenic acid.

*"Dear Mildred: Fortified Flax and a sharp reduction in saturated fats cleared my arthritis. This dietary regimen took six months to take hold. It was supplemented by swimming laps in a pool for about 30 minutes twice a week.*

*"As a result, the stiffness and discomfort in my left arm and right knee was reduced 100%. Pain in my fingers was cut out 95%. Every once in a long while I'm reminded of my arthritis by some temporary pain in my fingers.*

*"This improvement has held for about two years. This extended period of relief suggests the improvement was more than a temporary remission of this infirmity.*

*"Thanks for your flax. It has worked for me.*

*Cordially, M.B."* □

*I'M CLARA'S FRIEND, CLAY, ♪  
AND I'M HERE TO TELL  
THAT ALL THOSE SUPPLEMENTS  
KEEP ME WELL! ♪*



*Illustrations by Clay Geerdes and other artists as noted.*

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