

# THE SKINNY ON FAT

*Not all fats are created equal, according to researchers. Here are some useful tips on reaping the bountiful health benefits of omega-3-rich foods.*

## **An interview with Dale Guyer, M.D. by Joan Durham**

**I**n study after study, researchers are re-discovering the powerful nutritional benefits of omega-3 fatty acids—found primarily in fish and fish oils—in helping to reduce the risks of heart disease and depression.

In the Mar./Apr. 1999 issue, we presented the latest findings from the National Institutes of Health workshop on omega-3s, where researchers highlighted the benefits of omega-3-rich foods in combating depression, schizophrenia, and manic-depression.

Because fish oils offer so many health benefits, we interviewed Dr. Dale Guyer, a clinician and authority on complementary medicine, about his clinical experience with omega-3s. In this first of a two-part interview, Dr. Guyer discusses how omega-3s and other nutritional therapies enhance our emotional, cognitive, and physical well-being and offers useful tips on incorporating these beneficial foods into the daily diet.

**Q:** *Today, people are very conscientious about their weight and diet. Recently, I've read a lot about the important role of certain fats. Could you tell us about the good and bad fats?*

**A:** Weight issues are concerns that I am frequently asked about. In today's culture, we seem to be obsessed about the necessity of a low-fat diet. While it is obviously not in our best health interest to live on cheeseburgers, taking the low-fat approach to the extreme is probably not healthy, either.

One limitation of the low-fat approach is the need for an essential balance between what we call the "good"



**Dr. Dale Guyer and Joan Durham discuss omega-3 fats and tips on how to get them in your diet. If you're just living off Quarter Pounders with cheese and not eating green, leafy vegetables and fish, Dr. Guyer says, you probably need more omega-3 fats.**

and "bad" fats—specifically, we're referring to the families of omega-3 and omega-6 essential fatty acids. When we eliminate fat to a significant degree, we often exclude these essential fats from our diet, especially omega-3s, which are fats found in flax oil, hemp oil, fish, and some plants. When you exclude these essential fatty acids, it can actually impair your overall health and metabolic function because these fats are very important in regulating much of our metabolism.

People who eliminate these fats also tend to actually put on weight because some of these fats possess what we call a thermogenic property, meaning that by increasing the amount of fat in your diet—especially the omega-3s—many people whom I've seen clinically actually have lost weight more effectively. When people lower the fat in their diet, they tend to increase caloric intake by consuming carbohydrates, which can increase the levels of insulin in our bodies and create insulin resistance. We know that high

levels of insulin in our bodies can result in many health problems—possibly accelerating the risk of heart disease.

**Q:** *So our bodies need these essential fats for digestion and other important functions?*

**A:** Almost every aspect of metabolism—from the normal function of cellular membranes to nerve function—requires these essential fats. In the past, our bodies were programmed and designed to utilize a more precise and equal ratio of essential fatty acids, such as the omega-6 and omega-3, from the human diet.

**Q:** *What is omega-6?*

**A:** Omega-6 is an essential fatty acid found in high levels in processed foods which incorporate corn oil, soy oil, and vegetable-based oils.

**Q:** *Are omega-6s bad fats?*

**A:** I wouldn't consider one good or bad. It's important to achieve a balance between omega-3s and omega-6s.

In the past, we ate a more traditional diet. Our society was more hunter-gatherer in nature, and the ratios of omega-3s and omega-6s that we consumed were more equal in proportion. With the advent of mass food processing, our diet largely came to consist of more omega-6s than omega-3s. This imbalance is probably contributing to the increased incidence of chronic illness we are experiencing.

That is why bringing higher levels of omega-3s back into the diet to achieve a balanced ratio between these two fats is important.

**Q:** *How does a person know if their*

*omega-3 to omega-6 ratio is balanced? Should it be 60-40 or 30-70?*

**A:** You should try for a 50-50 ratio. Obviously, the easiest and most straightforward way to achieve this balance is to evaluate and change your present diet. If you're living off Quarter Pounders with cheese and not eating many green, leafy vegetables or fish products, your level of omega-6s is going to be high and out of proportion. To correct this imbalance, you can eat more omega-3-rich foods. To learn more about the omega-3 contents of foods, pick up a book on the subject. The reference books are readily available at the grocery checkout counters, for example, and they list the amounts of omega-3s and omega-6s in foods.

Another option is adding a flax oil supplement to your diet. Flax oil has a lot of omega-3s. The omega-3 content in flax is usually about 50 percent.

**Q:** *Do you use flax oil?*

**A:** Yes, I do. Flax oil generally tastes better when it's fresh. It has a sweet, almost almond-like flavor to it. Generally, it's pretty well tolerated, and if you mix it with food, it's usually not detected.

**Q:** *Do we need to worry about getting omega-6 from our diet, or do we get enough already?*

**A:** We generally get plenty of it. In cultures that rely solely on fish, such as in a traditional Eskimo culture—which has now changed since the introduction of fast food and processed foods—the ratios of omega-3 were significantly high. While Eskimos didn't have heart disease for the most part, they had other hemorrhagic problems, such as stroke and bleeding ulcers. Very high levels of omega-3—again a commentary on the importance of balance—can put people at risk for increased bleeding because high omega-3 levels may interfere with proper clot formation.



**Flax is a blue-flowering crop with oil-rich seeds that are tiny, smooth, and flat, ranging in color from light to reddish brown. Today, consumers are turning to flaxseed to enjoy its many health benefits and pleasant nutty flavor. Flax provides essential nutrients—including proteins, essential fatty acids, vitamins, and minerals—and contains both soluble and insoluble dietary fiber.**

**Q:** *I've read that our society has cut back on fats so much that it's possibly resulting in an increased incidence of Alzheimer's and other diseases. Is that true?*

**A:** It probably is. We don't know as much as we need to about the whole role of cholesterol and essential fats in the human body, but fascinating data are emerging every day. In the late '70s and early '80s, we began developing a concern about the role of cholesterol, especially as a risk factor for heart disease. While the relationship between high cholesterol levels and cardiovascular disease seems to be true, there is a big difference between the absolute and relative value of that observation. Cholesterol is the

**In 650 B.C., the Greek physician Hippocrates prescribed flaxseed to relieve intestinal discomfort. Later, in the eighth century, Charlemagne passed laws and regulations governing its consumption.**



backbone of many cell membranes, and is required for many bodily functions. Cholesterol is the precursor for the synthesis of many hormones, such as DHEA, pregnenolone, testosterone, and cortisol. If your body lacks the capacity to make these hormones and to maintain the structural integrity of cell membranes because of the absence of cholesterol, it is not surprising that many people can become very unhealthy.

**Q:** *Given a choice between margarine or butter, which one do you take?*

**A:** Butter, absolutely. If you look at our culture at the turn of the century, butter was king—everybody ate butter—yet heart disease was very rare. If you review epidemiological studies, there are significant increases in heart disease in our country, coinciding with the introduction of hydrogenated oils which contain trans-fatty acids that are present in products like margarine. We now know that some trans-fatty acids, consumed in high amounts, are detrimental to our body's circulatory health and also impair many other metabolic functions.

In addition, food additives, heavy metals such as lead, and toxic chemicals could all be risk factors related to heart disease or circulatory disorders. It is interesting to note that the rate of

heart disease has been falling, but the consumption of antioxidant supplements is also very high. A very strong argument can be made that this improvement in heart disease is not just the result of our focus on cholesterol and the use of certain cholesterol-lowering medications but is also related to the increased consumption of antioxidants. We have, for example, a very large-scale nurses' study showing that consumption of vitamin E dramatically lowers rates of heart disease.

**Q:** *Do growing children need a higher quantity of omega-3s or omega-6s for proper development?*

**A:** Again, balance for children is very important because we now know that specific components of omega-3 fatty acids, like DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid), are absolutely necessary for the normal development of a child's brain and nervous system. That is why there's such a push in medical circles to consider inclusion of DHA and other essential fats into infant formula. DHA is in mothers' milk, of course, especially if the mother is eating fish and omega-3-rich foods. For developmental purposes, DHA is very important for children. As a matter of fact, there are studies showing that children who have not had these essential fats in their diet are less quick and not as able to manipulate complex problems and concepts cognitively.

**Q:** *Is DHA important only for the neurological health of newborns and infants? What about older people?*

**A:** Neurological development occurs throughout life. It's always been assumed that you possess a certain nerve mass in your brain at birth and that's it, and that over time, the cells die off at a predictable rate so that when you are elderly, it's more difficult to think clearly. There are many studies showing that if we engage our minds as we age, we will continue to develop new neural connections that preserve our health during the aging process.

DHA is, of course, also vital to children, beginning at conception. A mother's diet is important to the nervous system of the developing fetus and after delivery during breast-feeding.

One problem that we are seeing is postpartum depression, or the "blue mood." It may be associated with low levels of essential fats. What happens is that if a mother's diet is relatively deficient in omega-3s to begin with, and the developing fetus consumes these essential fats for its own development, it leaves the mother very depleted at the end of that gestational period. We're seeing a connection between essential fats, cognitive ability, and normal psychiatric health. There might also be a connection between attention deficit hyperactivity disorder (ADHD), suicidal tendencies, violence and aggression, depression, and on down the line. We're just now be-

ginning to understand the importance and complexity of what essential fats do in our bodies.

**Q:** *If I have a 16-year-old, is it too late for him to start eating fish? Is he going to do OK in calculus?*

**A:** Looking back, I think maybe if I had fish oil supplements, I would have done better in calculus.

**Q:** *What if a kid doesn't like fish?*

**A:** That can be a challenge. Sometimes it's an acquired taste. When I was growing up, I seldom remember eating fish, other than the tuna salad that my father thought was very good:

I didn't see it the same way. Now, I love a good salmon fillet, especially blackened with ginger sauce.

**Q:** *If kids or adults won't eat fish, is there a supplement that would help?*

**A:** Once again, flax and hemp oils have good levels of omega-3, as do fish oil supplements in capsule form. With the fish oil capsules, however, there is often a nasty side effect of burping up the taste of fish all day long, and most people don't really like that flavor.

**Q:** *You mentioned attention deficit hyperactivity disorder (ADHD). Do you see a connection there with the*

*lack of the omega-3 fat?*

**A:** While there are not many studies on ADHD yet, there's anecdotal evidence that some cases of attention deficit disorder might be related to having low levels of omega-3 fatty acids.

When our parents went to school, the diagnosis of attention deficit disorder was unknown. Look how much our diet has changed since then. I can't suppose that God designed children to be Ritalin deficient. In my own practice, I often see that ADHD is related to food and allergy sensitivities—corn, wheat, dairy, and other common foods. Sometimes I've seen patients who have just excluded one or more of those food groups from their diet have a dramatic improvement. Of course, this is a matter of individual responsibility for one's health. It's a challenge today with our busy lifestyles to adhere strictly to an allergy elimination diet, and there are cases when appropriate pharmaceutical management is warranted.

**Q:** *Today, drugs such as Prozac, Zoloft, and Paxil have revolutionized the treatment of depression. Are there alternative treatments, and what can a person do to try to prevent depression?*

**A:** Depression is such a problem in our country. If you compare the rates of depression in our country with places such as Japan, population studies suggest that the higher intake of omega-3 acids in Japanese populations may be related to the lower rate of depression. We know diet plays a role.

In my own clinical practice, I have seen people who have included fish in their diet, or taken fish oil supplements or flaxseed oil, have a dramatic improvement. I am not suggesting, of course, that all depression is centered around omega-3 fatty-acid deficiency.

## Scientists think that a diet rich in omega-3s is vital to our cognitive, cardiovascular, and psychological health.



**Add walnuts, a good source of omega-3s, to salads and baked goods.**

You must look at the situational experiences of the individual, which contribute a lot to what's going on. Most people certainly have much more stressful lifestyles today.

Apart from conventional pharmaceutical preparations, simpler approaches can also work very well, which is one reason that there is so much information available on St. John's Wort today. I have had very good success with St. John's Wort in my own clinical practice. I've also seen very good results for some patients using the vitamin supplement Niacinamide, as well as [the supplement] S-adenosylmethionine (SAME). While you don't see SAME at many health-food stores yet, it's a common medicine used throughout Europe to treat depression, blue mood, Alzheimer's, dementia, and sleep disorders. I've witnessed some dramatic results for some people using these therapies. The one downside of SAME is that it tends to be costly. The one place that I know of where you can consistently find it is through mail order from The Life Extension Foundation (1-800-678-8989).

**Q:** *If a person is taking a prescription antidepressant, such as Prozac or Zoloft, would it hurt them to take supplements as well?*

**A:** There probably is a contraindication at this point in taking St. John's Wort with other antidepressants, especially SSRI (selective serotonin reuptake inhibitor) medicines—Prozac, Paxil, Zoloft, etc. While the contraindication possibly has to do with evidence resulting from a test tube rather than in a human body, until we know more it's probably best not to combine those two types of therapies.

Tryptophan and SAME are safe to

combine with antidepressants. Another option is 5HT, which you see at many health-food stores today: 5HT stands for 5-hydroxytryptophan, a metabolite of tryptophan.

It's important to give background on tryptophan because you can't buy it over the counter now. In the past, you could purchase tryptophan at health-food stores. It was a wonderful treatment for many people with depression and sleep disorders, and it has also been used for bulimia and other eating disorders. But because of one manufacturer's mistake in introducing a contaminant into one of its product lots, people developed an illness in the tissues called eosinophilia-myalgia syndrome—and there were some deaths from the illness—so the FDA took tryptophan off the market. Unfortunately, it has not been allowed back on the market, but it is available by prescription only through compounding pharmacies, such as Hopewell Pharmacy (1-800-792-6670) and some mail-order sources.

Some therapies are simply not available over the counter here. Many people in the United States order tryptophan, antiaging therapies, and other medicines from European pharmacies because of cost savings and availability. The removal of tryptophan from the market created a niche. One supplement

which filled this niche was 5HT. The one limitation is that 5HT might make a person more prone to develop a process called serotonin syndrome, where they could have overproduction of serotonin. I would caution anyone to consult their physician before utilizing either St. John's Wort or 5HT in conjunction with the standard antidepressant therapies. If they're not using any kind of standard antidepressant as far as a prescription medicine, then it's generally very safe to use these medicines.

**Q:** *In some depressions, people don't have enough serotonin. But what happens if you have too much serotonin?*

**A:** It varies. Serotonin is one type of neurotransmitter. We do know that people with low levels of serotonin tend to be prone to depression, violent behavior, and so forth. However, as in our discussion

about omega-3s and omega-6s, it's a question of balance.

There are other neurotransmitters—such as dopamine, norepinephrine, and so forth—which all need to be in balance. We can screen neurotransmitter levels with some relative accuracy through organic acid testing and other methods. Organic acid testing is a urine test that we do routinely in my office. It's interesting to discover that someone with depression might

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**Buy only fresh flaxseed, grind it in a coffee grinder, and store it in the refrigerator for later use on salads, cereals, and other daily fare.**



**Flaxseed and fish—such as salmon, mackerel, and sardines—are rich in omega-3s.**

not actually have a serotonin metabolite deficiency but maybe a dopamine deficiency for which other therapeutic options might be helpful, such as tyrosine, an amino acid that is a precursor your body uses to make norepinephrine and dopamine.

It is important to understand a person's individual physiology, rather than just making a diagnosis of depression, then giving them a medicine without understanding the biochemical deficiency.

**Q:** *Most people with depression go to a psychiatrist who determines after a brief meeting whether a person is depressed. Do psychiatrists and psychologists give these urine and blood tests?*

**A:** Generally, no. There is a tendency to prescribe the most common antidepressant. They do not really have the luxury of time to delve into what's going on in a person's life situation, their individual metabolism, their individual level of neurotransmitter metabolism, and how this biochemical information is important to ongoing treatment.

**Q:** *If a person is taking a drug that increases their serotonin, but they have a dopamine deficiency, will that drug even help them?*

**A:** Probably not. That's why antidepressant therapies fail for some individuals—because they are either intolerant of the medicine, or the medicine is not addressing the precise biochemical deficiency.

**Q:** *If people who read this tell their psychiatrists, "I want a urine test," will the psychiatrists know about the test?*

**A:** Probably not. In this situation, the medical consumer can help educate the medical professional. What they request is a urine organic-acid test available through a couple of companies—MetaMatrix, for one, and the Great Plains Laboratory. It's a very easy test to perform. The patient collects a morning urine sample and sends it to the lab, which will analyze the urine sample for all metabolites. Not only will the test provide information about neurotransmitter status but also how well cells are producing energy, how well the liver is detoxifying, what the biochemical activity of your digestive system is, and other relevant information. Many metabolic markers

can provide a wealth of information—a "biochemical fingerprint," so to speak—of what's going on in an individual's body. That's not the only tool we use, but it is very helpful in individualizing treatment.

**Q:** *Are the tests not used because the labs aren't there, or there's not a big enough demand?*

**A:** It's actually an unfortunate situation. The demand is there, but most medical consumers and, unfortunately, most doctors are not aware of these tests, so this precise testing often gets relegated to the realm of the complementary physicians who are more focused on the nutritional adequacy as a preventive component of a person's healthcare. People would be amazed by what can be measured these days. The Great Smokies Diagnostic Laboratories do a lot of these tests—from food allergy screening to essential fatty acids to testing for heavy metals and much more. The list of available tests that they offer is very extensive. Spectracell Labs in Texas does functional vitamin testing to analyze what individual requirements are for certain nutrients. Some people have higher-than-usual needs for specific nutrients compared to the general population. Other allergy tests are available through Serammune Physicians Labs and are used on patients with autoimmune illness, interstitial cystitis, and other problems.

**Q:** *It's important, then, to find a doctor that knows about these labs and knows how to read the reports.*

**A:** Exactly. Consumers looking for a doctor familiar with this technology can contact the American College for Advancement in Medicine, the American Holistic Medical Association, and the American Academy of Anti-Aging Medicine. These are big organizations that can offer a referral to a physician in their area.

*continued next issue*

*American College for Advancement in Medicine, 1-800-532-3688.*

*American Holistic Medical Association, 1-703-556-9728.*

*American Academy of Anti-Aging Medicine, 1-773-528-4333.*

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*Videotapes of the series of interviews with Dr. Dale Guyer are available. See page ?? for details.*