

## A Little Fat Can Go a Long Way

By Drs. Ronald Klatz and Robert Goldman

Let's face it: Too many of us eat too much fat, and when we do, it's usually the bad kind, not the good. What are good fats? We're talking monounsaturated or polyunsaturated fats and omega-3 fatty acids, and research demonstrates moderate consumption of these fats confer a number of health benefits. Yes, a little fat can go a long, long way, for better or worse; let's learn more about the healthy variety and why they're so important for your health.

As of 2008, an estimated 205 million men and 297 million adult women were obese; that's more than *half a billion* adults worldwide. The United States is the biggest (no pun intended) offender, with the highest collective [body-mass index](#) (greater than 28 kg/m<sup>2</sup>) among high-income countries. In fact, from 1980-2008, BMI rose the most in the U.S., increasing by more than 1 BMI point per decade.



Indeed, being overweight or obese is associated with a wide variety of life-robbing health conditions. As you pack on the pounds and flirt with BMI reaching overweight / obese levels, your risk of developing one (or more) of the following conditions markedly increases:

- Coronary heart disease
- Type 2 diabetes
- Cancers (endometrial, breast and colon)
- Hypertension (high blood pressure)
- Dyslipidemia (e.g., high total cholesterol or high levels of triglycerides)
- Stroke
- Liver and gallbladder disease
- Sleep apnea and respiratory problems
- Osteoarthritis (degeneration of cartilage and its underlying bone within a joint)
- Gynecological problems (abnormal menses, infertility)

While there are many causes of obesity, excess intake of fat – [particularly saturated fat](#) – is a major contributing factor. Fortunately, not all fat is bad in moderation. Replacing some of that saturated fat intake with small amounts of healthier fats can not only help you avoid the health conditions listed above, but also provide a variety of other health benefits.

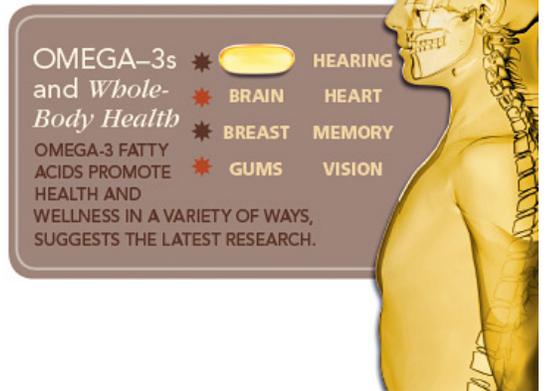
### Mono/Polyunsaturated Fats

Oils are fats that are liquid at room temperature. Most oils are high in monounsaturated or polyunsaturated fats, and low in saturated fats. Oils from plant sources (vegetable and nut oils) do not contain any cholesterol. Common cooking oils include canola oil, corn oil, cottonseed oil, olive oil, safflower oil, soybean oil, and sunflower oil. Additionally, walnut and sesame oil are often used for their full-body flavors. (Coconut oil and palm kernel oil, however, are high in saturated fats and for nutritional purposes should be considered solid fats.)

**Canola Oil:** Rich in omega-3 alpha-linoleic acids, canola oil may counteract elevated levels of *fibrinogen*, a blood clotting factor that, at elevated levels, is associated with increased risks of inflammation and inflammatory processes including coronary heart disease. Researchers from the University of Helsinki (Finland) investigated whether consumption of canola (rapeseed) oil, rich in omega-3 alpha-linoleic acids, could counteract elevated levels of fibrinogen. The

researchers evaluated the effects of canola-type rapeseed oil on serum lipids, plasma fibrinogen, and fatty acids in 42 men and women with elevated fibrinogen and cholesterol.

Study participants replaced one-quarter of their dietary fats with canola oil. During the six-week study period, canola oil doubled the intake of alpha-linoleic acids, while fibrinogen levels were reduced by 30 percent. The alpha-linoleic acids also helped to decrease plasma omega-6s and increase docosahexaenoic acid (DHA) levels.



[Olive Oil](#) and its phenolic compounds, oleuropein and caffeic acid, exert beneficial effects on fat oxidation and cardiac energy metabolism. In that previous studies suggest anti-diabetic, anti-atherosclerotic and anti-inflammatory effects, Geovana Ebaid, from Sao Paulo State University (Brazil), and colleagues investigated the effects of olive oil and its compounds on calorimetric parameters, myocardial oxidative stress and energy metabolism in heart tissue.

Obese rats supplemented with olive oil, oleuropein, and caffeic acid had higher oxygen consumption, increased fat oxidation, and lower carbon dioxide production than non-supplemented obese rats. As well, antioxidant enzymes were unaffected by olive oil and its compounds in the obese rats, but *increased* in non-obese rats supplemented with olive oil and oleuropein. After 42 days, researchers found that energy expenditure, oxygen consumption, and fat oxidation were lower in obese rats compared to the non-obese rat control group.

[Walnuts / Walnut Oil](#): Rich in polyunsaturated fats, walnuts and walnut oil may help the body to better respond during times of stress. Sheila G. West, from Penn State University, and colleagues studied 22 healthy adults with elevated LDL (low-density lipoprotein) cholesterol, supplying each subject with meal and snack foods during three diet periods of six weeks each in duration. The first diet period consisted of an "average" American diet: a diet without nuts that reflects what the typical person in the U.S. consumes each day; the second diet included 1.3 ounces of walnuts and a tablespoon of walnut oil substituted for some of the fat and protein in the average American diet; and the third diet was comprised of walnuts, walnut oil and 1.5 tablespoons of flaxseed oil.

The researchers discovered that including walnuts and walnut oil in the diet lowered both resting blood pressure and blood pressure responses to stress in the laboratory. Results also showed that average diastolic blood pressure was significantly reduced during the diets containing walnuts and walnut oil. The researchers concluded: "This is the first study to show that walnuts and walnut oil reduce blood pressure during stress. This is important because we can't avoid all of the stressors in our daily lives. This study shows that a dietary change could help our bodies better respond to stress."

### Omega-3 Fatty Acids

With our society's current emphasis on low-fat foods, it's important to remember that the body needs a certain amount of some kinds of fat. Natural fats provide a concentrated form of energy and create the environment in which fat-soluble vitamins, such as A and E, can be digested. They also provide the essential fatty acids (EFAs) the body uses to maintain its cellular structure. A primary type of EFAs are [omega-3 fatty acids](#). Regarded as essential to normal growth and health since the 1930s, awareness of the health benefits of EFAs has dramatically increased in the past few years.

For example, Harvard University researchers have found that omega-3 fatty acid deficiency kills an estimated 72,000-96,000 Americans annually, potentially ranking as the sixth biggest killer of Americans. This is more deadly than excess trans fat intake, which claimed an estimated 63,000-

97,000 American lives the same year. The researchers drew on 2005 data from the National Center for Health Statistics, assessing 12 dietary, lifestyle and metabolic risk factors; and created a mathematical model to determine how many deaths could have been prevented if people had followed better dietary practices.

### **Major Health Benefits**

**Depression:** Daily supplements of omega-3 fatty acids may improve measures of depression in seniors with mild to moderate depression. Yaser Tajalizadekhoob, from Tehran University of Medical Sciences (Iran), and colleagues have elucidated on the biological basis supporting this association. The team enrolled 66 men and women, ages 65 years and older, in a six-month study. Each subject received either an omega-3 supplement containing one gram of fish oil per day, providing 300 mg of both EPA and DHA, or placebo. The researchers reported: "After adjusting for cholesterol, [body mass index], and history of thyroid dysfunctions, a statistically significant difference was seen in scores [on a standardized depression test for seniors] between both groups. Furthermore, treatment with [omega-3 fatty acids] was clinically more effective in treating depression in comparison with the placebo."

**Heart Function:** Among patients with heart failure, omega-3 fatty acid supplements improve heart function and exercise capacity. Northwestern University researchers report that omega-3 fatty acid supplements improve heart function and exercise capacity among patients with heart failure whose condition has been controlled. Mihai Gheorghide and colleagues studied a group of 130 patients with chronic heart failure who were on standard therapy, assigning them to receive either omega-3 supplements (2 grams daily) or placebo. The team assessed left ventricular function and functional capacity at the study's start and 12 months later.

After a year, those patients receiving the omega-3 supplement showed a 10.4 percent increase in heart function, compared with a 5 percent *decrease* among those taking placebo. In addition, blood oxygen levels increased 6.2 percent in the omega-3 patients and decreased 4.5 percent in the placebo patients. Moreover, the team observed that exercise time went up 7.5 percent in those receiving supplements, while it went down 4.8 percent in those receiving placebo. Finally, among those taking the supplement, the hospitalization rate was 6 percent during the year, compared with 30 percent for those not taking the omega-3 supplement.

**Vision:** Age-related macular degeneration (AMD) is the leading cause of blindness in Caucasian Americans. High concentrations of omega-3s have been found in the eye's retina, and evidence is mounting that the nutrient may be essential to eye health. Sheila West, from Johns Hopkins School of Medicine, and colleagues studied 2,520 Maryland residents, ages 65 to 84 years, assessing the role of a diet rich in fish and seafood on AMD onset and progression. The team surveyed study subjects for fish and shellfish consumption over a one-year period, and assessed participants for AMD. Those with no AMD were classified as controls (1,942 people), while 227 had early AMD, 153 had intermediate-stage disease, and 68 had advanced AMD.

In the advanced AMD group, the macular area of the retina exhibited either neovascularization (abnormal blood vessel growth and bleeding) or a condition called geographic atrophy. Both conditions can result in blindness or severe vision loss. The team found that while participants in all groups, including controls, averaged at least one serving of fish or shellfish per week, those who had advanced AMD were significantly less likely to consume large quantities of omega-3 fish and seafood.

**Brain Function:** Healthy, middle-aged men and women with higher blood levels of DHA (docosahexaenoic acid), a type of omega-3 fatty acid, perform better on tests of reasoning, memory, and vocabulary. Matthew Muldoon, from the University of Pittsburgh, and colleagues pursued the mechanisms underlying this association. The researchers assessed data collected

on 280 community-dwelling men and women, ages 35 to 54 years, who were free of major neuropsychiatric disorders and not taking fish-oil supplements. The team monitored dietary biomarkers of specific types of omega-3 fatty acids, and found that alpha-lipoic acid (ALA), eicosapentaenoic acid (EPA), and DHA correlated to five major aspects of cognitive performance. While neither ALA nor EPA was associated with improvements in tests of reasoning, memory or vocabulary, higher DHA did correspond to better performance on those cognitive parameters.

**Memory / Cognition:** Daily supplementation of DHA-rich omega-3 fatty acids also helps to [improve memory and learning](#) in older adults with mild cognitive impairments. DHA is the principle omega-3 fatty acid in the brain, and previous studies have suggested an inverse correlation between higher DHA intake and the relative risk of Alzheimer's disease. Investigators evaluated the effects of DHA on improving cognitive functions in healthy older adults with age-related cognitive decline. The study involved 485 subjects, ages 55 and older, with a subjective memory complaint and who met criteria for age-related cognitive decline. Researchers assigned subjects to receive either 900 mg/day of DHA orally or a placebo for 24 weeks. The team found that subjects who took DHA displayed improved memory and learning skills.

**Gum Disease:** Cases of gum disease, most notably periodontitis, may be reduced by moderate dietary intakes of DHA and EPA, suggests research. Asghar Naqvi, from Harvard Medical School, and colleagues studied data collected on 9,182 adults, ages 20 years and older, who participated in the National Health and Nutrition Examination Survey between 1999 and 2004. The researchers found that those subjects who consumed the most DHA had a 20 percent reduced risk of developing periodontitis.

**Breast Cancer Risk:** Researchers at the Fred Hutchinson Cancer Research Center in Washington found that regular use of omega-3 supplements slashes [breast cancer risk](#). Emily White and colleagues surveyed 35,016 postmenopausal women who did not have a history of breast cancer on their use of non-vitamin, non-mineral "specialty" supplements, and tracked the incidence of breast cancer during a six-year follow-up period. The team found that women who regularly used fish oil supplements containing high levels of omega-3 fatty acids had a 32 percent reduced risk of breast cancer, with the risk reduction limited to invasive ductal breast cancer, the most common type of the disease.

**Hearing Loss:** Australian researchers have found that eating two servings of fish rich in omega-3 fatty acids weekly helps to reduce the risk of hearing loss. Paul Mitchell, from the University of Sydney, and colleagues analyzed data collected on 2,956 men and women enrolled in the Blue Mountains Hearing Study, surveying the subjects regarding their dietary intake of fish. The team found that two servings of fish weekly reduced hearing loss in subjects ages 50 years and older, compared with people who averaged less than one serving of fish per week.



### **More Healthy Fat Means Less Fat on You**

Being overweight or obese can lead to serious health consequences, and fat is a major culprit. In short, we consume too much fat, and when we do, it's often the saturated variety, the kind that contributes to high cholesterol, heart disease and other major issues. Now don't get us wrong; "healthier" fats, the mono/polyunsaturated fats and fats containing omega-3 fatty acids, are still fats; but evidence suggests that in moderation, they can actually improve our health in many ways, rather than the other way around. Now that's some good news. Talk to your doctor to learn more.