

ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle



Omega Fatty Acids

Understanding the Role & Relationship of Beneficial 'Fats'

The word *fat* is abounding with negative connotations. From the deep fryer vat at fast food restaurants to the excess fat many of us carry on our bodies, fat is associated with poor health. As we continue on our journey towards improved health and adjust our thought processes, we need to change our paradigm of fat. It's time to clarify the types of dietary fat and define the role fat plays in promoting good health. Let's start with a basic nutrition lesson.

Fat is one of the three macronutrients necessary for a healthy diet. Carbohydrates and protein are the other two macronutrients. Vitamins and minerals are also essential, but are required in much smaller amounts. Fat in the diet is important for energy; providing adipose (fat) tissue to insulate the body and cushion the organs; transporting the fat soluble vitamins A, D, E, and K; increasing satiety; stabilizing post-meal blood sugar levels; improving the taste of many foods; and serving as the building block for many necessary substances in the body. So it is clear that we need dietary fat to be healthy, but how much and which kind is best?

As we continue to see more and more research into the health effects of our food choices in this fast-paced world, some traditional views are being challenged. In fact, a study

released in 2006, which involved almost 49,000 women, found that a diet lower in total fat does not protect against colon cancer, breast cancer, heart disease or strokes.

Which is a better choice – butter or margarine?

Reports of the harmful effects of trans fatty acids in our diets leaves us with the dilemma of choosing margarine or butter. Because butter is rich in both saturated fat and cholesterol, it's a food with a high potential for causing arteries to be blocked. Most margarine is made from vegetable fat and provides no dietary cholesterol. The more liquid the margarine, such as tub or liquid forms, the less hydrogenated it is and the less trans fatty acid it contains. The best bet is spray margarine.

We have also learned that a low fat diet is not more effective than a low carbohydrate or Mediterranean diet in promoting weight loss. The studies indicate that just reducing total fat in the diet isn't the answer. We have to look at the types of fat that we consume to improve our health and decrease our health risks.

Just as important as the types of fat is the balance of different types of fatty acids. The typical Western diet has a ratio of 20 grams of omega-6 to 1 gram of omega-3 fatty acid. It has been suggested that a ratio of 4 grams

of omega-3 fatty acids to 1 gram of omega-6 fatty acids is optimal. This information makes it clear that we need to significantly increase our consumption of omega-3 fatty acids and decrease our consumption of omega-6 fatty acids.

The American Heart Association recommends that:

- Twenty-five to thirty-five percent of your total calories come from fat.
- Less than 7% of total calories come from saturated fat.
- Less than 1% of total calories come from trans fat.
- Adequate consumption of omega 3 fatty acids be based upon your heart disease risk.
- Those without documented heart disease eat a variety of fish, preferably oily fish (salmon, tuna, mackerel, herring and trout) at least twice a week.
- People with documented heart disease consume about one gram of EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acids) per day, preferably from oily fish, although supplements could be considered in consultation with their physicians.
- People who have elevated triglycerides obtain two to four grams of EPA and DHA per day in capsule form under a physician's care.

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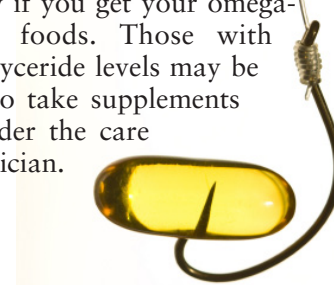
If we translate these recommendations into food choices, we will want to:

- Decrease the amount of saturated fat consumed. Saturated fats are found in animal sources (examples: fatty beef, lamb, pork, poultry with skin, whole milk, 2% milk, cheese, cream, butter), baked goods, foods fried in saturated oils, and some plant products (palm oil, coconut oil). Use margarine as a substitute for butter and choose soft margarines (spray, liquid or tub) over harder stick varieties. Look for margarines with liquid vegetable oil as the first ingredient and those labeled as “trans-fat free.”
- Read nutrition labels and minimize the intake of trans fats. Look for baked goods, crackers and margarines labeled “trans-fat free.” Avoid french fries, doughnuts and other deep-fat-fried foods.
- Increase the number of servings of oily fish consumed (salmon, tuna, mackerel, herring and trout) each week to two or more. The FDA advisory says that up to 12 oz of a variety of fish is safe for everyone. You can also obtain omega-3 fatty acids from canola, safflower, olive and corn oils; flaxseed; soybeans; walnuts; pecans; broccoli and other green leafy vegetables. These plant foods are rich in alpha-linolenic acid (ALA), an omega-3 fatty acid.
- Choose lean meats and poultry, low fat dairy products, and egg whites in place of whole eggs to moderate omega-6 fatty acids from animal sources. In moderate amounts, balanced with higher levels of omega-3 fatty acids, omega-6 fatty acids can promote health, but higher intake can cause inflammation and blood vessel damage, and can promote cancer. The typical Western diet has 20 times more omega-6 than omega-3 fatty acids—most likely from using a lot of animal food sources. Peanut oil, soybean oil, corn oil, safflower oil, sunflower seeds, pumpkin seeds, almonds,

hazelnuts, and peanuts are plant sources of omega-6 fatty acids.

- Realize that omega-9 fatty acids can be made by the body, so are classified as nonessential. These are monounsaturated fatty acids with the health benefits of reducing the risk of heart disease and stroke, lowering LDL (bad) cholesterol, increasing HDL (good) cholesterol, and controlling blood sugar levels. These fatty acids are found in canola oil, olive oil, peanut oil, and sunflower oil.
- Remember that fish oil capsules are not the best way to increase your intake of omega-3 fatty

acids. Foods contain a balance of nutrients providing a synergistic effect and the omega-3 fatty acids are better absorbed from food than from supplements. Supplements may contain concentrated amounts of toxins found in fresh fish. Overdo it and you run the risk of body odor, bleeding and bruising; not likely if you get your omega-3s from foods. Those with high triglyceride levels may be advised to take supplements while under the care of a physician.



FAT TERMINOLOGY

Lipids: organic (carbon-containing) substances that will not dissolve in water.

Fatty acids: the basic building blocks of lipids.

Essential fatty acids (EFAs): must be included in the diet and include linoleic acid and linolenic acid.

Saturated fatty acids: typically solid at room temperature, many saturated fats increase blood cholesterol levels. Butter, palm kernel and coconut oils are high in saturated fatty acids.

Monounsaturated and polyunsaturated fatty acids: a liquid fatty acid that has one double bond. Olive, canola, safflower, and peanut oils are examples of unsaturated fats. They may improve blood cholesterol levels when substituted for saturated or trans fatty acids.

Trans fatty acids: formed when unsaturated oils are made into solids by the process of hydrogenation. Trans fats have been greatly reduced in our food supply in the last few years because of their link to heart disease and other health risks.

Hydrogenated oils: hydrogen molecules are added to unsaturated fats to increase stability. Hydrogenation changes a liquid fatty acid into a solid

at room temperature. Margarines often contain high levels of hydrogenated fatty acids.

Omega fats: omega fats contain both essential and nonessential fatty acids. They are unsaturated and are linked to a reduction in cardiovascular disease, cancer, joint problems and others.

Omega-3 fatty acids: technically, fatty acids are classified as omega-3 fatty acids if the first double bond is found on the third carbon molecule. The oils found in fish are often high in omega-3 fatty acids. Omega-3 fatty acids lower blood cholesterol and triglyceride levels, decrease the risk of atherosclerosis, may help to control some autoimmune diseases, help with brain and eye development, and reduce the risk of cancer. Important omega-3 fatty acids are EPA (eicosapentaenoic acid), DHA (docosahexaenoic acid), and alpha linolenic acid.

Omega-6 fatty acids: must be obtained from the diet. Include linoleic acid, arachidonic acid and GLA (gamma linolenic acid).

Omega-9 fatty acids: monounsaturated oils found in canola oil, olive oil, peanut oil and sunflower oil.

Cholesterol: a type of lipid that is found only in animal food sources (not in plant food sources) and is produced in the body by the liver.

Cont. from page 2

To put it all in balance, fat has an important place in a healthy diet. Choose the source of fat carefully to get the health-promoting effects. Increase your intake of fish and plant-sourced omega-3 fatty acids and omega-9 fatty acids. Decrease your intake of saturated fat, trans fat and omega-6 fatty acids.

Just as with most things in life, moderation (of even the healthy fats) is important. Fat is a concentrated source of calories; over-consuming it will derail your goals for weight loss and maintenance.

WHAT'S NEW

Have you checked out the new Barix Clinics website yet (www.barixclinics.com)? Although there are still a few bugs to work out, the new site is up and is a great improvement. Check out all the tips, the resources and the patient story page. Let us know what you think and what else you would like to see on our site, by sending me an email (dhart@foresthealth.com). Our patient website (www.barixclinicsstore.com) is scheduled for a facelift in the future.

IN THE NEWS

Breathe Easier. A study in the April 2010 issue of *Annals of Allergy, Asthma & Immunology* found that patients who'd lost weight after bariatric surgery did experience easier breathing and took half as many prescription breathing medications. There was a significant decrease in breathing problems, including asthma, in the year after surgery. Just one more example of how life improves after bariatric surgery.

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FOOD	SERVING SIZE	OMEGA-3 (G)	CALORIES
Flaxseeds	2 tbsp	3.51	95
Walnuts	¼ cup	2.27	164
Salmon, Chinook	4 oz	2.09	262
Sardines	1 each	1.36	191
Halibut, baked	4 oz	0.62	159
Soybeans, cooked	1/2 cup	0.5	149
Shrimp, boiled	4 oz	0.37	112
Snapper, baked	4 oz	0.36	145
Tofu, raw	4 oz	0.36	86
Scallops, baked	4 oz	0.35	152
Tuna, yellow fin, baked	4 oz	0.33	158
Cod, baked	4 oz	0.32	119
Cloves, ground	2 tsp	0.20	14
Squash, winter	½ cup	0.17	40
Brussels sprouts	½ cup	0.13	30
Broccoli, steamed	½ cup	0.10	22
Collard greens, boiled	½ cup	0.09	15
Cabbage, boiled	½ cup	0.08	17

Patience and Diligence, like faith,
remove mountains.

—William Penn—

IT WORKED FOR ME

Submitted by Connie L.

When dining out, I order a small side garden salad and share a portion of a family member's entrée so I am able to get my protein intake.

To keep my portion right-sized, I bought 1/2 cup size containers and use these when packing my lunch each day.

Since Canada does not have a large selection of sugar-free foods, I stock up each time I travel to the States. My family, friends and co-workers always ask me if I need anything when they are travelling to the States as well.

REWARD YOURSELF

This month, you could earn a SPECIAL GIFT for your "It Worked For Me" tips or recipes! Just submit as many recipes and "It Worked For Me" tips as you like. The most original and creative will be awarded a special gift from our online store. Include your name and contact info with your entry—make sure your recipes follow Barix nutritional guidelines. Tips must be submitted by July 31, 2010. Please send comments, ideas, recipes and "It Worked For Me" tips to Deb Hart, RD, LD at dhart@foresthealth.com.

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RECONSTRUCTIVE SURGERY

To receive a **FREE RECONSTRUCTIVE SURGERY** guide, call 800-282-0066 or send us an email at rc@barixclinics.com with your name and contact information. Our reconstructive surgery program is currently performed at our centers in Michigan, Ohio, and Pennsylvania. *Call us today for more information!*

OTHERS CARE PLEASE SHARE

Please tell us about the lives that have changed because you shared your weight-loss story. Submit your story to http://www.barixclinicsstore.com/share_your_story.html. What you have to say may be printed in this publication or on our website and can serve as inspiration to all.

QUESTIONS

ABOUT FINANCING
YOUR SURGERY?

Call a Barix Patient
Service Representative
at 800-282-0066

RECIPES

BREAKFAST COOKIES

Submitted by Nalo Finley

Medium ripe bananas, mashed
2 small apples, peeled and chopped
½ cup raisins
¾ cup walnuts, chopped
½ cup sunflower seeds
1 tbsp flaxseed meal (ground flaxseed)
2 cups quick cooking oats, dry
1 tbsp vanilla extract
1 scoop Any Whey unflavored protein
6 packets Stevia® sweetener
¾ tsp baking soda
2 tsp cinnamon

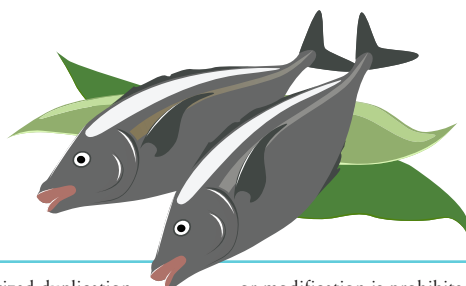
Preheat oven to 350 degrees F. Spray baking sheet with pan coating.

Place oatmeal in blender or food processor and blend until flour consistency. Add sunflower seeds and pulse. Place oatmeal flour/sunflower seed mixture in large bowl. Add Any Whey® unflavored protein, Stevia, baking soda and cinnamon. Stir until well mixed.

Mix bananas, apples, raisins, walnuts, and vanilla in another bowl and stir together. Add the fruit mixture to the oatmeal mixture and stir until mixed. Mix all ingredients and drop by large spoonful onto baking sheet. Bake for 7 minutes, or until golden brown. Remove from oven, flip cookies to other side and bake for approximately 7 minutes or until golden brown. Cool and enjoy. Leftovers keep in the refrigerator for 3 days and in the freezer for 3 months. Makes 24 servings.

NUTRITIONAL INFORMATION

PER SERVING: 105 calories, 3 grams protein, 5 grams fat, 14 grams carbohydrate, 80 mg sodium.



SALMON PATTIES

From eatingwell.com

1 pound wild salmon fillet, skinned (see Tip)
2 tablespoons finely chopped red onion or scallion
2 tablespoons chopped fresh cilantro
1/2 teaspoon finely chopped peeled fresh ginger
1/4 teaspoon kosher or sea salt
1/8 teaspoon freshly ground pepper
1 tablespoon extra-virgin olive oil or canola oil

With a large chef's knife, chop salmon using quick, even, straight-up-and-down motions (do not rock the knife through the fish or it will turn mushy) until you have a mass of roughly 1/4-inch pieces. Transfer to large bowl and gently stir in onion (or scallion), cilantro, ginger, salt and pepper, being careful not to over-mix. Divide the mixture into 4 patties, about 1 inch thick. Chill in the refrigerator for at least 20 minutes (or up to 2 hours) before cooking.

Heat oil in a large nonstick skillet over medium heat. Add the patties and cook until browned on both sides and just cooked through, 4 to 6 minutes total. Makes 4 servings.

NUTRITION INFORMATION

PER SERVING: 239 calories, 26 grams protein, 13 grams fat, 2 grams carbohydrate, 255 mg sodium.

Make Ahead Tip: Prepare through Step 1, cover and refrigerate for up to 2 hours.

Tip: Place salmon fillet on a clean cutting board, skin side down. Starting at the tail end, slip the blade of a long, sharp knife between the fish flesh and the skin, holding the skin down firmly with your other hand. Gently push the blade along at a 30° angle, separating the fillet from the skin without cutting through either.