Dietary Fats and Heart Disease—Understanding the Difference Between the Good and the Bad

Dietary fat is necessary for health, but because many Americans have a high intake of fast and fried foods they eat too much fat and the wrong type of fat. Dietary fat is composed of several different fatty acids which can have a considerable effect on cholesterol levels. Unsaturated or “heart healthy” fats are derived mainly from plant and fish sources and can help to improve lipid levels, whereas saturated fat comes from animal products and can worsen lipid levels and increase the risk for heart disease. Oil, used in cooking or as an ingredient in salad dressings, margarines, and mayonnaise, is a significant source of dietary fat. Unfortunately, selecting the best oil can be confusing.

Limit the Bad Fats

Saturated Fat
Foods high in saturated fat are typically solid at room temperature and come primarily from animal sources, with the exception of palm and coconut oils. Examples of foods high in saturated fat include fatty meats, such as sausage, bacon, and hot dogs, poultry with skin, lunch meats such as bologna and salami, and regular fat dairy products, including whole milk, cheese, butter, and ice cream. It is recommended that we limit saturated fat in our diet to less than 7 percent of total calories, which is approximately 15 grams based on an 1800 calorie diet.

Trans-Fatty Acids
Hydrogenation, the addition of hydrogen atoms to an unsaturated fat, can create unnatural trans-fats. The major sources of trans-fatty acids in the U.S. are partially hydrogenated vegetable oils, such as those found in stick margarines and deep fried fast foods. Food manufacturers have used this process to prolong the shelf-life of foods such as crackers, cookies, potato chips, and puddings. Several large studies have shown that trans-fatty acids increase the risk of coronary heart disease (CHD) by raising low density lipoprotein cholesterol (LDL-C) levels and decreasing high density lipoprotein cholesterol (HDL-C) levels. You should look for soft tub margarines and food products that contain zero grams of trans-fats.

Choose the Good Fats

Polyunsaturated Fats
Two major categories of polyunsaturated fatty acids (PUFA) are omega-6 and omega-3 fatty acids. Substitution of PUFA for saturated fat in the diet lowers LDL-C and reduces risk for CHD. Vegetable oils such as corn, sunflower, safflower, soybean, cottonseed, and peanut are high in omega-6 fatty acids. These oils provide linoleic acid (LA). Omega-3 fatty acids include eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA), as well as alpha-linolenic acid (ALA). EPA and DHA are marine-based fatty acids found in cold water fish, including tuna, swordfish, salmon, mackerel, sardines, and herring and may provide cardiac benefits. Alpha-linolenic acid is plant-based and found in canola, flaxseed and to some extent in soybean oil and walnuts. The American Heart Association advises consumption of fish at least twice a week to reduce cardiovascular risk. In patients with evidence of heart disease a daily supplement containing 1000 mg of EPA plus DHA may be recommended by your provider.

Monounsaturated Fats
Monounsaturated fatty acids (MUFA) contain one double bond; oleic acid is the most common dietary form. Oils high in oleic acid include canola and olive oil. Other dietary sources of MUFA include avocados and nuts. Epidemiologic evidence from the Mediterranean region, where diets are rich in MUFA, has demonstrated a lower incidence of CHD. Short term clinical trials of a Mediterranean-style diet have shown improvement in a number of risk factors, including lowering serum triglycerides and reduction of inflammatory markers, such as C-reactive protein. Provision of some calories from MUFA that might otherwise be provided from carbohydrates or saturated fatty acids can lower LDL-C without lowering HDL-C or raising triglyceride levels.

Cooking with Fats and Oils
It is impossible to completely eliminate all saturated and trans-fats from your diet, but you should try to eat as little as possible. When cooking choose the oil with the lowest amount of saturated fat that will provide the particular flavor that you desire. Heating oil changes its characteristics, so it is equally important to select cooking oil based on its intended use. Corn, sunflower or safflower oil, because of their high smoke points, are best used for deep frying, a cooking method that should be used very infrequently. Canola, extra virgin olive, sesame, and peanut oil are best used for baking, oven cooking or stir frying. Since all fats are equally caloric, however, limited use in food preparation is advised to maintain a reasonable body weight.

—Fran Burke, MS, RD

Reference