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The Mediterranean Diet and Your Heart

Part II

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Your Life Your Health

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This continues our discussion of the Mediterranean diet.

Nuts as a fat source

The diet of our ancient ancestors (Paleolithic diet) was abundant in nuts, which provided an easily accessible and highly nutritious food during cold winter months, when other food sources were scarce. In addition to protein, carbohydrate, and fat, nuts contain many other important nutrients: fiber, vitamin E, folic acid, potassium, and magnesium. They do not contain cholesterol. The US Department of Agriculture's food pyramid lists nuts in the same category as red meat, eggs, and dairy products because of the high fat content. But new information questions whether this affiliation is appropriate.

While nuts do contain a high proportion of fat--up to 80% of calories--tree nuts (eg, almonds, walnuts, pecans, hazel nuts, Brazil nuts) are actually low in saturated fat. Most of the fat comes in the form of monounsaturated fats and omega-3 fatty acids. The Mediterranean diet pyramid places nuts in the same category as fruits, vegetables, beans, and other healthful plant-based foods.

Several large studies have examined the relationship between the risk of heart disease and intake of omega-3 fatty acids from plant sources (alpha-linolenic acid). In the Health Professionals Follow-up Study (17), involving more than 43,700 male healthcare professionals, increased intake of alpha-linolenic acid lowered the risk of a heart attack by 60%.

Further evidence that nuts help prevent CAD comes from several large population studies. The first of these was the *Seventh Day Adventist Health Study*, which had more than 31,000 participants. Researchers found that those who reported eating nuts more than four times per week had a 50% lower risk of CAD than those who rarely ate nuts. Similar results were seen in the *Nurses' Health Study*. After adjustments for multiple other risk factors were made, participants who often ate nuts cut their risk of CAD by 35%, compared with those who rarely ate nuts.

The mechanism for this protective effect is not fully understood, but several studies have found that nuts can lower total cholesterol and LDL-C levels by about 10%. We believe

that nuts should be included as part of a healthy Mediterranean diet and advise patients to eat about 1 to 1.5 oz (1/4 to 1/3 cup) daily but to avoid heavily salted and honey-roasted varieties.

Avoidance of *trans*-fatty acids

Trans-fatty acids are produced when vegetable oils undergo a hydrogenation process. In the United States, these partially hydrogenated oils have gradually replaced animal fat in the diet because they are less expensive and provide longer shelf life for many products. However, *trans*-fatty acids increase the risk of CAD at least as much as saturated fat and may be implicated in up to 30,000 deaths from CAD annually in the United States. The US Food and Drug Administration has proposed a requirement that food labels list the amount of *trans*-fatty acids as well as the amount of saturated fat.

Margarine accounts for between 20% and 30% of *trans*-fatty acid intake in the United States, with the remainder coming from shortening, baked goods, chips, fried fast food, and other junk food. *Trans*-fatty acids increase LDL-C levels to the same extent as saturated fat; the difference is that *trans*-fatty acid intake also decreases HDL-C levels, whereas saturated fat typically raises them. The overall result is that the adverse effect of *trans*-fatty acids on the ratio of LDL-C to HDL-C is double the effect of saturated fat.

Several large studies have found a relationship between intake of *trans*-fatty acids and risk of CAD. It appears that long-term CAD risk is more than doubled in persons who consume a diet high in *trans*-fatty acids. While more research is needed to explain these effects, it seems clear that restriction of *trans*-fatty acid intake may be just as important as, if not more important than, limiting saturated fat for prevention of CAD. The Mediterranean diet is very low in *trans*-fatty acids because of its emphasis on whole, natural foods.

From theory to practice

Sufficient evidence exists to recommend the Mediterranean diet as an alternative to the standard AHA diets for prevention and treatment of cardiovascular disease. All patients should use the basic Mediterranean diet. There are some practical ways in which patients can incorporate the Mediterranean diet into their overall eating plan. Most people find this diet to be more palatable and easier to follow than other diets.

Practical suggestions for patients to incorporate the Mediterranean diet into everyday life

Category	Consume	Avoid
Fruits and vegetables	Wide variety of whole fruits and vegetables; try for at least 7-10 servings per day	Vegetables prepared in butter or cream sauces

High-fiber breads, cereals, and pasta	Whole-grain bread and cereal, bran, brown rice	Sweets, white bread, biscuits, breadsticks, and other refined carbohydrates
Protein that is low in saturated fat	Lean cuts of meat (fat trimmed) or poultry (no skin); low-fat dairy foods (skim milk, yogurt)	Bacon, sausage, other processed or high-fat meat, milk or cheese that is not low-fat, ice cream
Fish or other source of omega-3 fatty acids, at least 1 or 2 times per wk	Salmon, trout, herring, water-packed tuna, mackerel (or fish oil supplement); flaxseed, spinach, walnuts	Fried fish (except when pan-fried in olive oil)
Healthy oils for cooking, salad dressing, and other uses	Extra-virgin olive oil, canola oil, flaxseed oil ("high-oleic" sunflower or safflower oil may also be an option)	Omega-6 oils (corn, sunflower, safflower, soybean, peanut)
Peas, beans, legumes, and nuts	Soybeans, lentils, or any kind of peas, beans, or legumes; tree nuts (eg, almonds, pecans, walnuts, Brazil nuts)	Heavily salted or honey-roasted nuts; stale or rancid nuts
Alcohol	One 5-oz glass of wine, a 12-oz beer, or a 1.5-oz drink containing distilled spirits with the evening meal five days a week maximum	Limit to no more than 1 drink daily for women, 2 drinks daily for men and that less than every day
Fat	Emphasize whole, natural foods as above; look for "trans-fatty acid-free" margarine and snack foods	Fast food, fried food, margarine, chips, crackers, baked goods, doughnuts, any processed food made with partially hydrogenated oil

Crete Diet

On an international scale there is much discussion about, and deep interest in, finding the ideal diet, which will improve the health of human beings warding of illnesses. Ever since antiquity, the traditional diet of Cretans seems to be just such a one, including all

the right ingredients. The Greek island of Crete has always been identified with healing and regeneration. And once again, an ancient culture may offer lessons to the people of today!

Following scientific research and statistical analyses, the Cretan nutrition and diet has been proven to promote health and longevity. It consists almost exclusively of products that the people of Crete produce naturally which are products that only the island of Crete and its ideal climatic conditions can offer.

It is not only the unique in taste and quality Cretan products but also their combination, which gives an enormous nutritional value and can be found in every Cretan dish. A comparative study among several developed countries, which began in 1960 on behalf of seven countries, has a group of about 700 Cretan men from the countryside under medical observation, regularly checking the state of their health: so far this group has had the lowest percentage of deaths caused by heart attacks and different kinds of cancer.

Until recently the diet was simple and wholesome: olive oil, which counted for 1/3rd of the individual's daily need in energy, but mainly cereals, principally bread, pulses, vegetables and fruit and, to a lesser degree, cheese, milk, eggs, fish and a little red wine with every meal. Taking into account the conditions of today's life, we would recommend a return to the traditional Cretan eating habits.

If someone decides to incorporate a Cretan-like diet, it is good to know the following basics:

- Use olive oil as the principal fat, replacing other fats and oils.
- Drink a moderate consumption of wine, normally with meals; about one to two glasses per day for men and one glass per day for women. Have several alcohol free days a week.
- Eat fresh fruit as a typical daily dessert; limit sweets with a significant amount of sugar and saturated fat.
- Incorporate an abundance of food from plant sources, including fruits and vegetables, breads and grains, beans, nuts, and seeds.
- Eat minimally processed and seasonally fresh and locally grown foods.
- Total dietary fat should range from less than 25 percent to over 35 percent of energy, with saturated fat no more than 7 to 8 percent of total calories.
- Eat low to moderate amounts of cheese and yoghurt daily.
- Consume low to moderate amounts of fish and poultry weekly; and limit eggs from zero to four servings per week.
- Only eat red meat a few times or just one time per month.

Bon appetite! It is your life and it is your health.