



# The Mediterranean Diet: Healthy Eating for Lifelong Good Health



The Mediterranean diet is a lifestyle approach to good health that includes a balanced variety of foods and daily exercise. The diet is based on the foods and beverages traditionally consumed by people living in countries along the Mediterranean Sea.

In the 1940s, Ancel Keys, a famous researcher and promoter of the Mediterranean diet, noticed that people living on the island of Crete had a very low rate of chronic disease and a long life expectancy. Keys' Seven Countries Study in the 1950s showed that, despite a high fat intake, the population of Crete had very low rates of coronary heart disease and certain types of cancer. The traditional dietary patterns of Crete and the surrounding area in the early 1960s were considered to be largely responsible for the good health observed in these regions.

Numerous studies have linked following the traditional Mediterranean diet to:

- Decreased risk of death from all causes, from heart disease and from cancer
- Reduced risk for cardiovascular disease
- Reduction in inflammation that increases risk for heart disease
- Decreased risk for hypertension
- Lower abdominal obesity
- Decreased risk for metabolic syndrome
- Reduced risk for type 2 diabetes
- Improved glycemic control and insulin sensitivity in people with diabetes
- Reduced risk for overall cancer, cancers associated with the gastrointestinal tract and post-menopausal breast cancer
- Reduced risk of stroke, Alzheimer's disease and dementia
- Improved cognitive function

A landmark study published in 2014 showed that the Mediterranean diet supplemented with extra virgin olive oil or nuts protected against cardiovascular disease (CVD). The study showed that a high-unsaturated fat diet is better for cardiovascular health than a lower-fat diet and that it is never too late to change dietary habits to improve cardiovascular health. The study results demonstrate that a high-unsaturated fat and antioxidant-rich dietary pattern such as the Mediterranean diet is a useful tool in the prevention of CVD.

## Typical Mediterranean Foods

There are many different religions, cultural and culinary traditions, and food preferences throughout the Mediterranean basin. Generally, the Mediterranean diet relies on fresh rather than processed foods. It is lower in saturated fats, salt and sugar. It is rich in plant foods including fruits, vegetables, whole grains, legumes, beans and nuts. Olive oil is the primary source of fat. Cheese, yogurt, fish, poultry and eggs are eaten in low to moderate amounts. Only a small amount of red meat is consumed. Wine is included with meals in moderation.

The traditional Mediterranean diet consists of minimally processed, seasonally fresh, locally grown grains, vegetables, fruits and nuts eaten at most meals. These foods are important sources of vitamins, minerals, antioxidants and fiber. Soluble fiber slows the rate of digestion, which helps keep blood glucose in check.

Whole grains – wheat, oats, rice, rye, barley and corn – are consumed in whole, minimally-processed forms so they retain much of their original nutrients, antioxidants and fiber.

Vegetables are an important staple in the diets of all countries bordering the Mediterranean Sea. They provide valuable nutrients such as potassium, folic acid, fiber, carotenoids and other antioxidants. Vegetables are normally cooked or drizzled with olive oil. Olive oil increases absorption of protective carotenoids.

Whole fresh fruit is plentiful in the Mediterranean and is generally served at all meals. Fresh fruit is the typical daily dessert. Fruits are rich sources of phytonutrients, vitamins and fiber.



Tree nuts, beans, legumes and seeds are good sources of healthy fats, protein, fiber and phytochemicals with antioxidant properties. Walnuts are commonly eaten and provide omega-3 fatty acids, which may be important in preventing many health problems, including heart disease, hypertension and cancer. Omega-3 fatty acids lower triglycerides and have an anti-inflammatory effect on the lining of the blood

vessels. Omega-3 fatty acids may also play a role in improving mood and sharpening memory. Nuts add flavor and texture to Mediterranean dishes.

Olive trees grow virtually everywhere in Mediterranean countries. Olives are commonly eaten whole, and the oil is widely used for cooking and flavoring. Olive oil is the primary source of dietary fat used for cooking, baking and for dressing salads and vegetables. Extra virgin olive oil is highest in health-promoting omega-3 and monounsaturated fats, antioxidants and other important micronutrients.

Herbs and spices and other seasonings add flavors and aromas to foods, reducing the need to add salt or fat when cooking. They are also rich in a wide range of health-promoting antioxidants and are used generously in Mediterranean cooking. Raw garlic and onion contain allicin which may protect against heart disease. Capers contain antioxidants and anti-inflammatory compounds.

Cheese and yogurt are eaten regularly in the traditional Mediterranean diet, but in low to moderate amounts. The calcium in cheese and yogurt is important for bone and heart health. Lactic acid bacteria in yogurt may improve gastrointestinal health.

Fish and shellfish are important sources of healthy protein for Mediterranean populations. Cold water fish such as tuna, herring, sardines and salmon are rich in essential heart-healthy omega-3 fatty acids. Shellfish and crustaceans, including mussels, clams and shrimp, have similar benefits. Fish and shellfish are not typically battered and fried in Mediterranean countries like they are in the United States.

Eggs are a good source of high-quality protein and can be especially beneficial for individuals who do not eat meat. Eggs are eaten in moderation and regularly used in baking in Mediterranean countries.

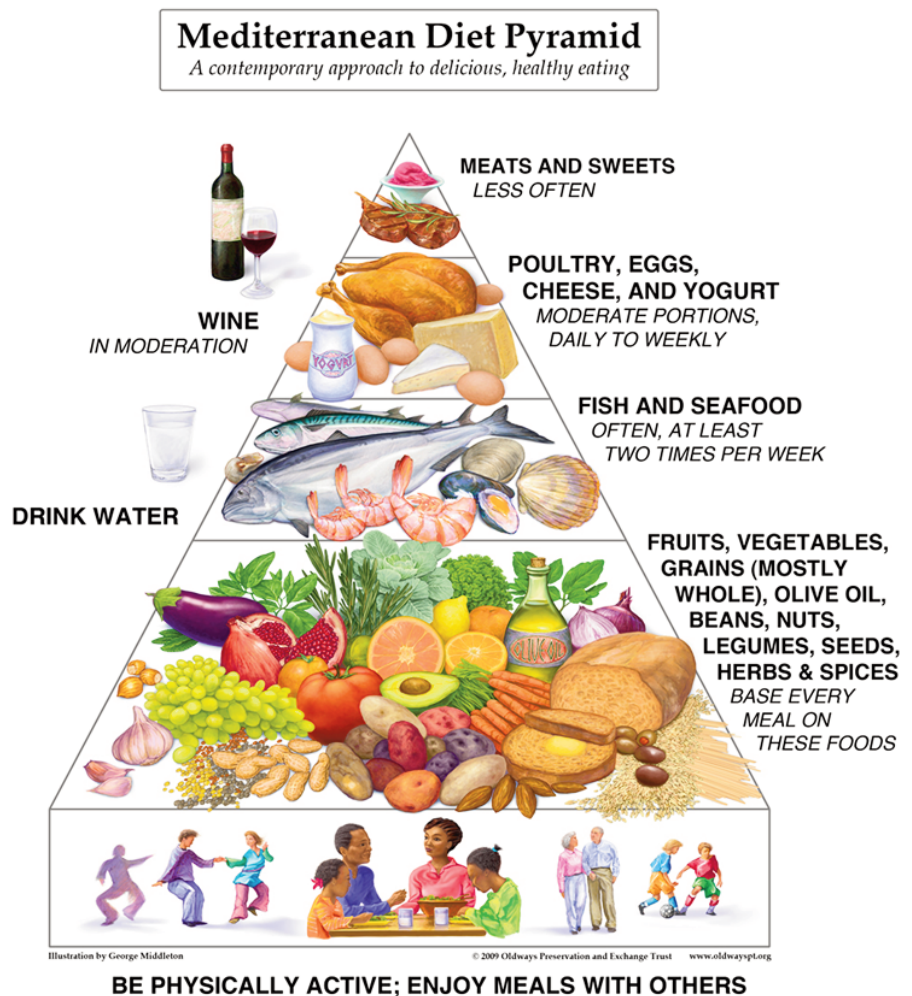
Meats such as lamb, goat, sheep, pork, rabbit and fowl are eaten in small portions. Poultry is a good source of lean protein and is lower in saturated fat than most red meat.

Sweets are consumed in small portions in the Mediterranean and are eaten only a few times per week. Fresh and dried fruits are typically eaten at the end of the meal instead of sugar-sweetened desserts.

Wine is consumed regularly but moderately in the Mediterranean, if not prohibited by religious beliefs. "Moderately" means up to one 5-ounce glass of wine per day for women and up to two 5-ounce glasses for men. Alcohol in moderation is protective against heart disease and red wine contains antioxidants and other substances that also protect against heart disease.

The Mediterranean diet is now recognized as the "gold standard" for eating patterns that promote lifelong good health. In the early 1990s, scientists at the Harvard School of Public Health teamed up with Oldways Preservation and Exchange Trust, an international coalition of nutrition scientists and culinary experts, to introduce the Mediterranean diet to Americans. They developed the Mediterranean Diet Pyramid to help people follow this healthy way of eating.

Foods in the bottom section of the pyramid come from plants and form the foundation of the diet. They may be eaten more frequently and in larger amounts. Portion sizes and frequency of consumption should decrease as you move up the levels of the pyramid.



A healthy diet is not the only factor affecting the health of the Mediterranean population. The Mediterranean lifestyle is about taking the time to relax and enjoy the company of family and friends. Mealtime is something to share with loved ones – a time to taste and smell and enjoy food, rather than eating on the run. Mealtime is one of the most valued foundations of traditional Mediterranean culture.

Activity is one of the secrets to happiness and long life. Life in the Mediterranean basin is not centered on the automobile. People walk more and drive less than we do in this country. Physical activity provides a sense of physical and emotional well-being, especially when the experience is shared with family or friends.

Research has shown that following a Mediterranean-type diet can reduce blood pressure, blood cholesterol, triglycerides and blood sugar levels; increase HDL cholesterol; improve the total cholesterol/HDL cholesterol ratio; reduce inflammation; and decrease insulin resistance. While following a Mediterranean diet does not *guarantee* better health and increased lifespan, scientists believe that for many people it is a cost-effective way to improve health and prevent chronic disease.

Adapted from: *What Is the Mediterranean Diet?* and *The Mediterranean Diet Pyramid*, Oldways Preservation and Exchange Trust. Accessed from <http://www.oldwayspt.org> on March 17, 2010, by Rosemary Rodibaugh, PhD, RD, LD, Professor, University of Arkansas System Division of Agriculture.

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