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# THE MEDITERRANEAN DIET & YOUR HEART



## HEALTHY FATS TAKE CENTER STAGE

Extending from the Nile River to ancient Rome, the Mediterranean Sea is home to some of history's most interesting cities and sights. The people in the Mediterranean region not only enjoy some of the most delicious foods in the world, but as a group they have some of the lowest obesity rates compared to other developed countries. People who eat a Mediterranean diet have been the focus of many studies about the relationship between diet and overall health and longevity.

The Mediterranean diet has been studied for years, and for good reason. Research indicates that this diet has been shown to prevent major chronic diseases, one of which is the leading killer in America for both men and women—heart disease. In America, heart disease claims 610,000 lives annually and is responsible for one in four deaths. Each year, there will be approximately 735,000 heart attacks, with 525,000 being a first-time occurrence. But scientific evidence shows that by adopting a Mediterranean-style diet, we can drastically boost our heart health and improve our chances of living a long, healthy life.

### THE BASICS

The Mediterranean diet focuses primarily on plant-based foods, such as fruits and vegetables, whole grains, legumes, and nuts. Olive oil is used as the main source

of fat, and herbs and spices are used to flavor foods instead of salt. Fish is eaten at least twice a week, and red meat is limited to no more than a few times per month. It includes low-fat or fat-free dairy products. Drinking red wine in moderation is acceptable (and optional), and culturally, this diet promotes enjoying meals with family and friends. Red wine never hurts with this, either!

Fruits and vegetables are an integral part of this diet, and seven to ten servings a day are recommended. No Mediterranean-style diet would be complete without plenty of tomatoes, as well as olives, zucchini, eggplant, broccoli, and peppers. Include fruits or vegetables at every meal, and select organic varieties whenever possible.

Pasta, bread, and other foods containing grains are staples of Mediterranean cuisine, but they're whole-grain varieties



eaten with much larger amounts of vegetables. This style of eating removes all processed foods from your daily intake such as white bread, white pasta, and white rice. Overly processed foods are often high in unhealthy fats, and they contain refined seed and vegetable oils (like soybean oil). These oils are often partially hydrogenated, which turns them into trans fats. Trans fats are linked to an increased risk of cardiovascular disease and stroke.

Protein is an important part of the Mediterranean diet, but red meat is only eaten on a very limited basis. Nuts and seeds are highly consumed in the form of whole nuts or nut butters free from added hydrogenated oils and sugar. Beans such as chickpeas, kidney beans, cannellini beans, and lentils are also sources of protein. When you do eat red meat, choose the leaner options like loin, round, or sirloin. Bison is another great choice as it's comparable to skinless chicken breast when it comes to calories, fat, and cholesterol. Steer clear of fatty meats like bacon and sausage; however, chicken and turkey sausage are fine.

Eating fish at least twice a week is an important part of the Mediterranean diet, but it's important to do it strategically—cut out the fried seafood and opt for healthy choices like salmon, water-packed albacore tuna (canned tuna can be packed in unhealthy oils), trout, sardines, herring, and mackerel, which contain heart-healthy omega-3 fats. They should be baked or lightly sautéed. Many people who switch to this healthier style of cooking quickly come to appreciate the delicious flavors of the fish, healthy oils, and seasonings that are often overshadowed by the frying process.

Many of us love dairy products and with a few adjustments, they can be included in the Mediterranean diet. Full-fat dairy products are replaced with low-fat or fat-free options. This includes cheese, yogurt, and milk.

The real star of the Mediterranean diet is extra-virgin olive oil, which is used in cooking as well as with raw veggies and as a dip for bread. It is the main source of fat, and studies show that it benefits health in a variety of ways.

### EXTRA-VIRGIN OLIVE OIL TO THE RESCUE

The basic Mediterranean diet is indeed healthy, but extra-virgin olive oil kicks it up a notch. Extra-virgin olive oil is a heart-healthy monounsaturated fat (an omega-9 fatty acid). It lowers LDL cholesterol (the “lousy” cholesterol) as well as homocysteine, which, when elevated, can increase the risk of heart attacks and strokes.

Olives and extra-virgin olive oil contain phytonutrients (plant chemicals) called polyphenols. Oleuropein is one of the most researched of the polyphenols and has been found to protect blood vessels, keep blood flowing consistently, and lower blood fats. Other polyphenols found in extra-virgin olive are hydroxytyrosol and luteolin. They also protect the heart by preventing blood platelets from clumping, something that can lead to blood clots. Research has also found that the monounsaturated fat in extra-virgin olive oil can lower blood pressure, another marker of heart health.

Extra-virgin olive oil appears to improve the function of HDL, the “highly desirable” cholesterol, in patients at high risk for heart disease. In a study by PREDIMED

that looked at 296 people at risk of developing heart disease, participants were randomly assigned one of three diets for 12 months:

- A traditional Mediterranean diet enriched with four tablespoons of extra-virgin olive oil every day
- A traditional Mediterranean diet enriched with an extra fistful of nuts every day
- A healthy control diet that reduced processed food, sweets, high-fat dairy products, and red meat.

The findings of the study showed that the traditional Mediterranean diet enriched with four tablespoons of extra-virgin olive oil every day had improved function of HDL much more than the other two groups. It didn't raise HDL, but the function is just as important to note; HDL is responsible for removing cholesterol from plaque in the arteries and moves it to the liver, where it can be eliminated or used to produce the important steroid hormones. HDL protects LDL from being oxidized, which can cause plaque buildup in the arteries. Finally, HDL is responsible for keeping the blood vessels open and blood flowing freely. The



Toss warm popcorn in extra-virgin olive oil.



GO FOR ORGANIC

control was the only one of the three groups that lowered total cholesterol and LDL, showing once again how heart healthy the Mediterranean diet can be.

When selecting olive oil, it's important to choose extra virgin instead of light virgin or pure olive oil. Extra-virgin olive oil comes from the first cold pressing of olives that have been processed without the use of solvents and chemicals. Light or even extra-light olive oil is cheaper and processed using chemicals, while pure olive oil is a mix of light and extra virgin but the ratio could be as large as 95 percent light to 5 percent extra virgin.

### THE PROTECTIVE ROLE OF OMEGA-3S

The types of fat in the Mediterranean diet are one of its healthiest features. In addition to the mono-unsaturated fat found in extra-virgin olive oil, research shows that omega-3 fats may help lower the risk of chronic diseases such as cancer, arthritis, and heart disease.

Omega-3s can be obtained from both marine animal and plant sources. The two most important omega-3 fatty acids are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), which are found in fish. Another important omega-3 fat is ALA (alpha-linolenic acid), which can be found in flaxseeds and walnuts.

While the body can convert some of the ALA in plant sources to DHA, it's only around 1 to 3 percent and, in rare cases, up to 5 percent. This low amount gives the body little to no benefit. When it comes to omega-3s, it's clear that fish oils are superior to plant sources.

The DHA in fish oil has been found to help with a variety of cardiovascular issues by lowering triglycerides and blood pressure;

preventing cardiac arrhythmia (abnormal heart rhythm, irregular, too fast, or too slow); reducing inflammation (lowering homocysteine and C-reactive protein); preventing thrombosis (blood clot formation); preventing fatty deposits in the arteries that lead to hardening of the arteries from plaque buildup; and promoting the growth of new blood vessels.

Every cell in the body is made up of EPA and DHA, and more than 90 percent of omega-3 found in brain tissue is DHA. It's highly concentrated and appears to be important for cognitive and behavioral function. This is why it's critical for women to take a prenatal DHA formula during pregnancy to support the baby's brain growth. A DHA supplement supports heart, brain, and overall health at every stage of life, and as we age, it becomes particularly important to support brain health with DHA.

### A DYNAMIC DUO

Batman and Robin, Lucy and Ethel, salt and pepper—they're all fantastic duos. But only the combination of extra-virgin olive oil and omega-3s gives heart disease a one-two punch!

The monounsaturated fatty acids and polyphenols found in extra-virgin olive oil promote a healthy heart, a sharp brain, and better vision and keep inflammation under control. The EPA and DHA in omega-3s benefit brain, heart, vision, and joint health. It couldn't be easier to boost your overall health than by adding extra-virgin olive oil and fish oil supplements to your daily practice.

Mixed together, extra-virgin olive oil and omega-3s can be drizzled over a salad and on your steamed vegetables, or used for bread dip. You can also use this



Fruits and vegetables make up the bulk of Mediterranean cuisine, but here in the US, it's important to include organic selections as many conventional fruits and vegetables may be heavily sprayed with toxic and persistent chemicals during the growing process. To find out which fruits and vegetables should be purchased organic, see the Dirty Dozen and Clean Fifteen lists put out annually by the Environmental Working Group ([www.EWG.org](http://www.EWG.org)).

combo to replace butter in mashed potatoes. How about this? Toss warm popcorn in these healthy oils!

You can even substitute extra-virgin olive oil for butter in baking. Use three tablespoons of extra-virgin olive oil in recipes that call for one-quarter cup of butter. You can also use a quarter cup plus one tablespoon of extra-virgin olive oil in recipes that call for a half cup of butter.

Whether you decide to fully adopt the Mediterranean diet into your lifestyle or simply enhance your current diet by incorporating more fish, extra-virgin olive oil, and omega-3s, you will be taking an important step to improving your overall health and wellness. Who wouldn't love that? ☼