Dispelling the Myths about Olive Oil
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Americans are in love with all things Mediterranean, especially olive oil. And rarely does the media miss a chance to report that olive oil is a good fat. A study in the news praised olive oil as heart-healthy and extra virgin olive oil as especially healthy.¹

The problem, though, is that many journalists do not fully understand the scientific studies they’re reporting on. Facts get distorted. Qualifiers vanish. Headlines turn sensational. And the truth sometimes disappears.

As a result of bad reporting (and occasional poorly designed research), there are many dangerous myths associated with olive oil consumption. I’d like to dispel a few of them and give you the facts you need to make good dietary decisions when it comes to oils and fats.

**Myth: Olive oil protects against heart attack.**

**Fact: Olive oil is not heart-healthy.**

Foods rich in monounsaturated fats like olive oil are less harmful than foods full of saturated and trans fats, but just because something is less harmful than something else does not mean it is “healthful.” For example, a cigarette that contains less tar or benzoapyrenes (what some people might mistakenly refer to as “healthier”) still leads to lung cancer. Similarly, the consumption of “healthier” monounsaturated fats like olive oil still may lead to diseased arteries. When scientists fed monounsaturated fats to monkeys in isolated controlled studies for five years, the monkeys developed extensive plaque buildup and coronary artery disease.² In fact, researchers reported that the monkeys fed monounsaturated fat developed equivalent amounts of coronary artery atherosclerosis as those fed saturated fat. In a review, Dr. Lawrence Rudel of Bowman Gray School of Medicine at Wake Forest University warned that the science supporting claims that monounsaturated fats are heart-protective is weak, and based largely on population studies, not controlled trials. Moreover, claims that olive oil is heart-protective are questioned by the demonstrated detrimental effects on atherosclerosis in animal models.³

Several human studies also call into question olive oil’s heart-health claims. When researchers from the University of Crete recently compared residents of Crete who had heart disease with residents free of the disease, they found that the residents with heart disease ate a diet with significantly higher daily intake of monounsaturated fats (principally olive oil) as well as all fats.⁴ If there are benefits from eating olive oils, they are marginal benefits and definitively not protective.

Data from the Nurses Health Study, an ongoing study from Harvard Medical School analyzing the habits and health of nearly 90,000 female nurses, found that those who consumed olive oil were only marginally healthier than those eating a typical high-saturated-fat American diet. Another study investigated how well people’s arteries were dilating (expanding) to accommodate blood flow after they had eaten several meals. Each meal emphasized a different component of the Mediterranean diet. After the meal rich in olive oil, dilation in the arteries was impaired.⁵ The meal caused severe constrictions, which can injure the endothelium, the inner lining of arteries, contributing to heart disease. No such problems occurred with the other meals.

The beneficial components of the Mediterranean diet, concluded Robert Vogel, M.D., and colleagues at the University of Maryland School of Medicine, appear to be antioxidant-rich foods, including vegetables and fruits and their derivatives such as vinegar and omega-3-rich fish. These foods, he continued, appear to provide some protection against the direct impairment in endothelial function produced by high-fat foods, including olive oil. So, if you’re not eating fruits and veggies, you’re not getting protection. If you’re pouring olive oil on an already bad diet—one devoid of protectors like fruits and veggies and full of destroyers like cheeseburgers—you’ve only making your diet worse.

Research just published in the Journal of the American College of Cardiology also found that dilation was worse after 24 people, 12 healthy and 12 with high cholesterol levels, consumed olive oil. Five teaspoons of olive oil swallowed after salami-and-cheese meals did not help preserve the
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This research and other data indicate that olive oil is not heart-protective, Dr. Robert Vogel told the journal Pritikin Perspective. Vogel, a cardiologist who has studied heart disease for more than 30 years, counsels his patients to eat some fish and other rich sources of omega-3 fatty acids instead of olive oil, and to eat plenty of fruits and vegetables every day.

Finally, and most fundamentally, pouring a lot of olive oil onto food means you’re consuming a lot of fat. And eating a lot of any kind of fat, including the so-called “healthier” ones, means you’re eating a lot of calories, which leads to excess weight, which leads to increased risk of diabetes, high blood pressure, stroke, many forms of cancer, and, yes, heart disease.

**Myth: Extra virgin olive oil is especially heart-healthy because it’s rich in polyphenols.**

**Fact: All plant foods are rich in polyphenols, and many deliver far more polyphenols (and far fewer calories) than olive oil.**

Let’s take a look at a recent study on extra virgin olive oil. Researchers from Italy and other European countries directed 200 healthy men to use three different olive oils for three weeks apiece. One was an extra virgin olive oil high in antioxidant plant compounds called polyphenols; the other two were more heavily processed non-virgin varieties with moderate to low polyphenol levels.

At the end of the study, the scientists found that the virgin olive oil showed better heart-health effects and higher HDL (“good”) cholesterol levels, as well as greater declines in markers that may indicate oxidative stress. Oxidative stress is a process that inflames the arteries and heightens the risk of plaque rupture and heart attacks. The researchers credited the virgin oil’s high polyphenol content for the better results.

But the problem is, if you’re relying on olive oil for your polyphenols, you’ve got to eat a lot of calories to get a decent amount of polyphenols, and eating lots of calories is just what Americans, with our epidemic rates of obesity, do not need. A tablespoon of olive oil delivers a hefty 120 waist-expanding calories, but delivers only 30 mg of phytosterols (a group of polyphenols). By contrast, a mere 11 calories of green leafy lettuce gets you the same number of polyphenols. And eating lettuce and other leafy greens provides other well-documented benefits. Mountains of research over the past several decades have consistently linked foods like leafy greens with healthier, longer, disease-free lives because they are rich in all kinds of nutrients, including vitamins, minerals, fiber, polyphenols, and beta-carotene. Olive oil, by comparison, has little or none of these.

**Myth: Olive oil lowers LDL (“bad”) cholesterol.**

**Fact: Olive oil, in and of itself, does not lower LDL cholesterol.**

In just about every study showing that people lowered their LDL cholesterol levels after starting to use olive oil, including the recent study on extra virgin olive oil, the people used olive oil in place of other dietary fats, often saturated fats like butter, cheese, and fatty meats. Of course LDL is going to go down when you eliminate well-known LDL-raising fats. The point is, it’s not the addition of olive oil that improves LDL cholesterol levels. It’s the subtraction of artery-clogging fats like saturated fats and trans fats. This fact is clearly stated in the official health claim allowed by the Food and Drug Administration:

“Limited and not conclusive scientific evidence suggests that eating about 2 tablespoons (23 grams) of olive oil daily may reduce the risk of coronary heart disease due to the monounsaturated fat in olive oil. To achieve this possible benefit, olive oil is to replace a similar amount of saturated fat and not increase the total number of calories you eat in a day.”

Unfortunately, what we usually hear in the media and see on olive oil bottles are only the words “Heart Healthy.” Gone are the FDA’s qualifiers. Gone, in effect, is the truth.

**Myth: The Mediterranean diet is heart-healthy, and it is rich in olive oil, so olive oil must be heart-healthy.**

**Fact: People with the longest life expectancy and least heart disease do not eat diets rich in olive oil. They eat diets rich in whole, natural foods like vegetables, fruits, whole grains, and beans.**
In the 1950s, Ancel Keys and fellow scientists observed that people living in the Mediterranean, especially on the isle of Crete, were lean and heart disease-free. While it is true that their diet included olive oil, it also included an abundance of fruits, vegetables, herbs and spices, coarse whole-grain breads, beans, and fish. And the people walked about nine miles daily, often behind an ox and plow.

Much has changed on Crete and throughout the Mediterranean since then. Today, the people of Crete still eat a lot of olive oil, but their intake of whole, natural foods has gone way down, as has their physical activity. The island’s new staples are meat, cheese, and television. Today, more than 60% of Crete’s adult population and an alarming 50% of its children are overweight. Has maintaining an olive oil-rich diet saved them from disease? Not at all. In recent years, rates of heart disease, diabetes, and hypertension have skyrocketed.

The point here is olive oil is not a magic bullet that made populations along the Mediterranean so healthy in the 1950s. Mistakenly crediting olive oil with health benefits is just one of many dietary misattributions floating around today. What made Mediterranean peoples healthy was a diet rich in fruits, vegetables, and nuts and substantial physical activity.

In a recent study in the New England Journal of Medicine, scientists followed the diets and health of 22,043 adults in Greece for years. Adherence to the traditional Mediterranean diet was assessed by a 10-point scale that incorporated the key facets of the diet, including an abundance of plant food (fruits, vegetables, whole-grain cereals, nuts, and legumes), olive oil as the main source of fat, and low-to-moderate amounts of fish and poultry. Though higher adherence to a Mediterranean diet was associated with significantly lower death rates, olive oil itself was associated with only a small and non-significant reduction in mortality, wrote Dr. Frank B. Hu of Harvard Medical School in an editorial accompanying the study.

So don’t reward olive oil with the laurels, says Dr. Alice Lichtenstein, one of the nation’s top nutrition scientists, at the Human Nutrition Research Center on Aging at Tuft University in Boston. In interviews about this study of Greek adults, she said, “If the main message that Americans get is to just increase their olive or canola oil consumption, that’s unfortunate because they will increase their caloric intake, and they are already getting too many calories. What Americans need to do is eat more fruits, vegetables, and legumes and fewer foods rich in oils and saturated fats.”

Indeed, Okinawa, Japan has the highest percentage of inhabitants who live 100 robust years and beyond, and they don’t even use olive oil. They do eat a lot of fiber-rich, straight-from-the-earth foods, as do the next four communities with the highest percentages of centenarians: the people of Bama, China; Campodimele, Italy; Hunza, Pakistan; and Symi, Greece. All five communities eat diets with plenty of fruits, vegetables, whole grains, and beans, and low-to-moderate servings of animal protein, usually seafood or lean meat. It is this diet, not olive oil, which is the common denominator of these five longevity hot spots.

**Myth:** Olive oil raises HDL (“good”) cholesterol.

**Fact:** Many people with high HDLs have diseased arteries, and many with low HDLs have very clean arteries.

One of the heart-healthy effects of extra virgin olive oil, wrote the authors of the recent study on olive oil varieties, is that it raised levels of HDL “good” cholesterol more than the non-virgin oils. But HDL is just one number in a risk group of many, and it’s not the most important one—LDL is. Ultimately, we should focus on the big picture on all of the numbers that contribute to heart health. And the fact is: the populations who have the lowest incidences of heart disease in the world, the people living in Okinawa and in other rural regions of Japan, have very low levels of HDL. Their levels run in the 20s (0.52–0.75).

Conversely, other people, like some Americans, have very high levels of HDL and high rates of clogged arteries and heart attacks. What’s critical, then, is not the marker (high HDL), but the endpoint. We’ve got to ask ourselves, “What happens to people after years and years? Who actually ends up with less heart disease?” In every study, the rural Asians win (yes, the people with the low HDL levels). Every time, they are the
ones who beat out populations with higher HDLs, like the populations of Crete, Greece, and Italy.

So just raising HDL does not always equate with better health. Remember the study that fed monkeys olive oil for five years? During the study, the monkeys’ HDL levels went way up. But their endpoint, after five years, was plaque-ridden, diseased coronary arteries. A lower LDL is much more important than a higher HDL, and HDL is only useful when LDL is high.

**Myth:** Extra virgin olive oil yielded greater declines in markers of oxidative stress.<br><br>**Fact:** Markers are not endpoints.

As with HDL cholesterol, let’s not confuse markers with endpoints, that is, what actually happens years down the line to your coronary arteries. The scientists in this study did not measure the health of the artery walls, only the amounts of oxidative chemicals. We don’t know if years of using olive oil produce arteries with less inflammation and less plaque buildup.

Sure, polyphenols may reduce damaging oxidant chemicals, and that could well be a good thing, but as discussed earlier, you can get polyphenols and many other vitamins, minerals and other nutrients with foods, like fruits and vegetables, that have a lot fewer pound-producing calories compared to olive oil.

**Myth:** Certainly, monounsaturated fats are better than saturated fats.<br><br>**Fact:** “Better than” is not the same thing as “good in and of itself.”

The human body has no essential need to consume monounsaturated fats from dietary sources. The only fats you need to get from dietary sources (because you can’t manufacture them yourself—i.e., essential nutrients) are short chain omega-6 and omega-3 fats (polyunsaturated fats). Of these, the one you need to pay closer attention to is omega 3. Olive oil is a poor source of omega 3. In fact, you’d have to drink a 7 oz. (207 mL) glass of olive oil to get a sufficient daily dose of omega 3s. Seven ounces of olive oil contains 1,800 calories and 30 grams of saturated fat (yes, a percentage of the fat that makes up olive oil is saturated.)

Interestingly, the American Heart Association (AHA) recently lowered the recommended intake of saturated fat to no more than 7% of total calories eaten each day. Olive oil is 14% saturated fat. So if you’re using a lot of olive oil on your food, it’d be hard to have a diet that’s less than 14% saturated fat, which means your arteries are being subjected to double the saturated-fat limit that the AHA recommends. Is olive oil better than butter? Yes. But is it good in and of itself? No.

**Conclusion**

No oil should be considered a health food. Oils are the most calorie-dense foods on earth. Ounce for ounce, oil packs even more calories than butter or bacon. A diet with hefty amounts of oil invariably produces hefty amounts of body fat, which leads to all sorts of devastating diseases, including America’s #1 killer—heart disease. Steer clear of all oils loaded with saturated and trans fatty acids, such as coconut oil, palm oil, and palm kernel oil. And try to limit your consumption of oils rich in polyunsaturated or monounsaturated fats to one teaspoon per day. If you want to maximize your health, stick with the dietary principles of the Nutrient Rich lifestyle.

**References**

See also *Olive Oil & The Mediterranean Diet are a HOAX!* by Jeff Novick, MS, RD, March 5, 2010, [http://www.jeffnovick.com/RD/Articles/Entries/2010/3/5_Olive_Oil_%26_The_Mediterranean_Diet_Are_A_Hoax!.html].


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