Consuming more olive oil associated with less heart disease in Americans

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Consuming more olive oil was associated with less risk of heart attack among Americans, especially when it replaced mayonnaise, margarine or butter, according to preliminary research presented today at the American Heart Association's Epidemiology and Prevention | Lifestyle and Cardiometabolic Health Scientific Sessions 2020.

After accounting for diet and lifestyle factors, researchers found that those who ate more than half a tablespoon per day of olive oil had a 15% lower risk of having any kind of cardiovascular disease and a 21% lower risk of coronary heart disease. However, higher consumption of olive oil did not show an impact on stroke risk.

The researchers also found that replacing one teaspoon of butter, margarine, mayonnaise or dairy fat with the same amount of olive oil lowered the risk of any cardiovascular disease by 5% and lowered the risk of coronary heart disease by 7%. However, when the study began in 1990, many margarines contained substantial amounts of trans-fatty acids, so the results may not apply to vegetable margarines currently available.

"Previous studies have linked high consumption of olive oil with better cardiovascular health, particularly in Mediterranean countries where olive oil intake is much higher than in the United States," said Marta Guasch-Ferre, Ph.D., lead author of the study and a research scientist in the department of nutrition at Harvard T.H. Chan School of Public Health in Boston.
"Our aim was to investigate whether higher olive oil consumption was beneficial to heart health in the U.S. population," Guasch-Ferre said.

This study took place between 1990 and 2014 and included 63,867 women from the Nurses' Health Study and 35,512 men from the Health Professionals Follow-up Study. All participants were free of cancer, heart disease and other chronic diseases at the start of the study. Every four years for about three decades, study participants answered questionnaires about their diet and lifestyle.

Researchers also used statistical models to compare the cardiovascular health benefits of olive oil with other plant oils combined, such as corn, canola, safflower and soybean. "One interesting thing our study shows is that although olive oil was better than most animal fats and margarine, it was not superior to vegetable oils in this study population," Guasch-Ferre said. "This means that replacing any type of animal fat with vegetable oils, including olive oil but also others, could be a good strategy to improve cardiovascular health."

The study findings were observational, which means they don't prove cause and effect. However, small intervention studies have found benefits of replacing animal fats with olive oil on blood lipids. "Future research is needed to investigate the mechanisms behind this association as well as the effects of other vegetable oils on heart health," said Guasch-Ferre. The study was also limited by the fact that the data was self-reported by the participants. However, repeated measures of diet used in the study can help to improve accuracy of dietary measurements.

"Using vegetable oils in cooking and in salads makes good sense," said Penny Kris-Etherton, Ph.D., R.D.N., the chair of the American Heart Association's Lifestyle and Cardiometabolic Health Council and distinguished professor of nutrition at The Pennsylvania State University, College of Health and Human Development in University
Park. "Research has overwhelmingly found that diets that are rich in plant-based foods, including healthier vegetable oils such as olive, safflower, corn and many others, can significantly benefit heart health. Butter and tropical oils (palm oil and coconut oil) are both high in saturated fat, which raises LDL cholesterol ("bad cholesterol") in many people. Margarine made with vegetable oil is also a source of healthy fats."

Provided by American Heart Association

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