

The cardioprotective qualities of Australian extra virgin olive oil

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New research shows consuming extra virgin olive oil every day can significantly reduce blood pressure, which is a key risk factor for cardiovascular disease.



Researchers say the project is significant because it's the first Australian study to show a drop in central systolic <u>blood pressure</u> (in central arteries such as the aorta) and peripheral systolic blood <u>pressure</u> (in smaller arteries in the arm) linked to olive oil consumption.

The study, led by La Trobe University and published in Nutrients, is also important because it involved participants from many cultural backgrounds—showing that Mediterranean heritage is not a factor in benefiting from olive oil consumption.

The researchers led a clinical trial into the cardioprotective qualities of extra virgin olive oil, produced in Australia, in 50 healthy adults with diverse backgrounds and dietary habits.

They found consuming four tablespoons of extra virgin olive oil per day can reduce central and peripheral systolic blood pressure by 2.5 and 2%, respectively.

Lead author and La Trobe Ph.D. candidate Katerina Sarapis said understanding how olive oil consumption impacts multi-ethnic communities is important.

"Extra virgin olive oil is rich in a variety of active compounds such as polyphenols, which have proven health benefits thanks to their anti-inflammatory and antioxidant properties," Ms Sarapis said.

"This popular oil is widely recognized as a nutritious source of dietary fat when paired with traditional, Mediterranean style diets from Greece and Spain. Our study confirms the benefits associated with olive oil consumption extends to people without Mediterranean heritage but who have different cultural upbringings, traditions and food preferences."

The trial compared the effects of extra virgin olive oil with refined low



polyphenol olive oil.

"We asked participants to add 60 milliliters—or 4 tablespoons—of either extra virgin or refined olive oil to their daily diets for three weeks. Following a two-week break where participants could not eat olive oil or olives, they were then asked to consume the alternative oil," Ms Sarapis said.

The researchers measured blood pressure after each three-week period.

"The refined, low polyphenol olive oil had no significant impacts on blood pressure, but the extra virgin olive oil caused a reduction in central and peripheral systolic blood pressure. This is of clinical importance, as this result was achieved without the use of any <u>blood</u> pressure medications," Ms Sarapis said.

Primary supervisor of the collaborative Ph.D. project, La Trobe Associate Professor George Moschonis, said the study is an important step forward in heart disease prevention.

"Cardiovascular disease is the leading cause of death globally. Our findings provide evidence for a potentially widely accessible dietary intervention that can reduce cardiovascular risk in populations not accustomed to a high consumption of extra virgin olive oil," Associate Professor Moschonis said.

This trial was supported by a seeding grant from La Trobe University. Cobram Estate provided partial financial support and extra virgin olive oil for this trial but had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results. Ms Sarapis has been supported by an Australian Government Research Training Program Scholarship.



More information: Katerina Sarapis et al. The Effect of High Polyphenol Extra Virgin Olive Oil on Blood Pressure and Arterial Stiffness in Healthy Australian Adults: A Randomized, Controlled, Cross-Over Study, *Nutrients* (2020). DOI: 10.3390/nu12082272

Provided by La Trobe University

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