

## Wine polyphenols lower blood pressure



The Mediterranean lifestyle is synonymous to a healthy lifestyle for many people. This diet is rich in vegetables, fish and olive oil, but also inseparably associated with drinking a good glass of red wine. Other alcohol-containing beverages do not have such a similar health status, which suggests that other components in red wine may be of importance. The most likely candidates are the so-called polyphenols, the natural compounds in red wine, which are for a large extent responsible for the colour and taste of wine. To test this idea we used isolated alcohol-free dry matter of red wine and added to that dry matter of purple grape juice to create a rich blend of polyphenols (since wine and grape juice contain different classes of polyphenols). We filled capsules with the obtained wine-grape juice powder, and asked thirty volunteers with a mildly elevated blood pressure to ingest the capsules for a month.

A separate, but similar, group of people was asked to ingest capsules containing only the grape juice powder alone. In the wine-grape juice group blood pressure dropped by approximately 2% during daytime, but not during sleeping time; the grape juice alone had no effect despite the same dose. Also only in the people who ingested the wine-grape juice capsules, we measured a lower amount of a specific protein in the blood responsible for narrowing the diameter of arteries. This may partly explain how the polyphenol-rich wine-grape juice affects blood pressure. Whether a glass of red wine contributes to a healthier blood pressure will probably depend on the polyphenol content, which may vary considerably between wines. Moreover, some polyphenols may be healthier than other ones. The reported similar-sized blood pressure lowering by polyphenol-rich dark chocolate and tea suggest that the 'catechins' is the most obvious polyphenolic subclass responsible for the observed benefits; these polyphenols are abundantly present in red wine, chocolate and tea.

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## **Publication**

Consumption of a polyphenol-rich grape-wine extract lowers ambulatory blood pressure in mildly hypertensive subjects.

Draijer R, de Graaf Y, Slettenaar M, de Groot E, Wright Cl.

Nutrients. 2015 Apr 30

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