

Nutrients in pomegranates and dates provide maximum protection against the development of atherosclerosis

A combination of pomegranate fruit and date fruit and pits provides maximum protection against atherosclerosis, indicates research by Prof. Michael Aviram, Head of the Lipid Research Laboratory at Technion Rappaport Faculty of Medicine and Rambam Medical Center in Haifa. Atherosclerosis development involves cholesterol oxidation and lipids accumulation in arterial wall cells (mostly macrophages), and leads to heart attacks or strokes. Slowing oxidation processes in the body therefore reduces the risk for cardiovascular events. For the past 15 years Prof. Aviram and his research team have been working on isolating and researching active polyphenols, which are particularly effective antioxidants and anti atherosclerotic agents. The researchers have isolated the polyphenolic hydrolysable tannin punicalagin, which is unique to the pomegranate fruit, as well as the specific phenolic acids that are unique to dates, and have shown that these nutrients dramatically reduce the risk for developing cardiovascular diseases.



Fig. 1. DATE - Phenolic acid (caffeic acid)-peroxyl radicals scavenging, Pomegranate - elegantin polyphenols (punicalagin) - peroxynitrite scavenging.

In addition, tests on date pit components showed them to be very rich in unique several polyphenols antioxidants. Indeed, the consumption of date seed extract greatly inhibits (by 90%) the development of atherosclerosis. The combination of date fruit, date seeds and pomegranate fruit is even more effective, such that researchers are recommending the combined use of all these three components. Such a use reduces the accumulation of cholesterol and of oxidized lipids in arterial wall cells, and causes the removal from the body of surplus cholesterol in the blood vessels, via the intestinal system. In a trial performed on mice, this triple combination was indeed found to result in a significant reduction (33%) in the oxidative stress in the arterial wall, and a similar reduction of 28% in the arterial cholesterol levels. In conclusion, the combination of date fruit and seeds together with pomegranate fruit effectiveness exceeds that of each of the components individually, such that it is highly recommended, particularly for persons at high risk for cardiovascular diseases (but not for diabetics).

Publication

[Anti-atherogenic properties of date vs. pomegranate polyphenols: the benefits of the combination.](#)

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