

With Pomegranate Reducing Cardiometabolic Risk and Inflammation

Chronic low-grade inflammation often increases with age—a phenomenon known as inflammaging. This process is linked to a higher risk of conditions such as diabetes mellitus, [cardiovascular disease](#), and neurodegenerative disorders in older adults.

A recent study published explored whether [pomegranate extract](#) (PE) could help mitigate some of these age-related risks in adults over 55.



Study

The study involved 86 participants, most of whom were White British women with an average [body mass index](#) (BMI) of 24.

Their average systolic blood pressure (SBP) was 128 mm Hg—elevated, though not within the [hypertensive](#) range. In fact, 80% had SBP levels between 120 and 129 mm Hg.

Results

At the outset, participants showed a wide range of [inflammatory markers](#). Roughly one-third had interleukin-6 (IL-6) levels within the lower end of the normal range, while just over half had tumor necrosis factor-alpha (TNF- α) within normal limits. Almost all participants had normal C-reactive protein (CRP) levels.

However, cardiometabolic risk factors were more common. Nearly 90% had total cholesterol levels above 5 mmol/L, and 80% had elevated [low-density lipoprotein](#) (LDL) cholesterol levels (>3 mmol/L).

Elevated triglycerides (TG > 1.7 mmol/L) were seen in 11% of participants, while low high-density lipoprotein (HDL) levels were found in only 4%. Fasting [blood sugar levels](#) were within the normal range for just over half of the group.

Over the course of the study, those who consumed PE experienced reductions in some [inflammatory markers](#) that were not observed in the placebo group. IL-6 levels dropped by an average of 5.47 pg/mL, and IL1- β also decreased significantly. CRP and TNF- α showed a downward trend, although not statistically significant.

Markers such as IL1- α and [plasminogen activator inhibitor-1](#) (PAI-1) remained unchanged.

PE consumption was also linked to a reduction in SBP, particularly among participants with initially elevated readings. On average, SBP dropped by 5.2 mm Hg. [Diastolic blood pressure](#) (DBP) decreased by around 3 mm Hg, though this change wasn't statistically significant.

Other metabolic indicators, including BMI, did not change significantly with PE use. This might be due to the relatively small proportion of [overweight](#) participants, limiting the ability to detect differences based on weight.

Notably, PE intake did not affect dietary habits, [physical activity](#), or macronutrient consumption. The supplement was well tolerated, with high compliance reported.

From a clinical perspective, the drop in SBP is meaningful. A 5% reduction in SBP is generally associated with a 10% decrease in the risk of major [cardiovascular](#) events.

The proposed mechanism for this blood pressure benefit involves improved vasodilation. This is likely driven by ellagitannin-related reductions in [oxidative stress](#) and enhanced activity of endothelial nitric oxide synthase (eNOS).

Despite these promising findings, PE did not significantly improve other cardiometabolic markers in this study. The sample, predominantly composed of women with [normal weight](#), may introduce selection bias and limit generalizability.

Conclusion

This study highlights the often overlooked cardiometabolic and inflammatory risks that can exist even among seemingly healthy older adults. Many participants had elevated SBP and inflammatory [markers](#) at baseline.

The results suggest that regular consumption of pomegranate extract may help lower SBP and certain inflammatory markers in this age group. As the authors note, "The consumption of pomegranate extract may offer a valuable, [non-pharmacological strategy](#) to promote healthy ageing."

However, further research is needed. Larger, more diverse studies with longer follow-up periods will be essential to determine the long-term [health](#) impact of PE supplementation in older adults.

Source:

<https://www.news-medical.net/news/20250404/Reducing-cardiometabolic-risk-and-inflammation-with-pomegranate.aspx>