

# Green tea reduces cholesterol risk

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Green tea. Credit: Wikimedia Commons

(Medical Xpress) -- In a recent study published in the *American Journal of Clinical Nutrition*, Xin-Xin Zheng reports that green tea reduces LDL and total cholesterol. This could explain the reasoning behind green tea's apparent reduction to the risk of heart disease.

Xin-Xin Zheng and his colleagues from Peking Union Medical College pooled the results of 14 previous trials that looked at the consumption of green tea. The researchers divided participants up into one group that had either consumed green tea or taken green tea supplements for up to at least three months and another group which had been given placebos.

In looking at the results, participants who had consumed green tea saw an average reduction in total [cholesterol](#) levels of 7.2mg/dL when

compared to the control group. LDL cholesterol showed an average reduction of 2.2mg/dL. There was no change reported in the levels of HDL, or good cholesterol.

Green tea contains catechin which is a flavonoid with antioxidant properties. Researchers believe it is these catechins that decrease the absorption of cholesterol in the body and help reduce cholesterol levels.

These catechins have also been shown in previous studies to demonstrate other heart-healthy benefits. They seem to work as a natural blood thinner and anticoagulant as well as reducing inflammation in the blood vessels.

While the reduction of cholesterol in green tea has been shown, it is only a small reduction and researcher's stress that green tea should not be used in place of standard cholesterol-reducing treatments. [Green tea](#) may however be a useful addition to a traditional heart-healthy diet.

**More information:** Green tea intake lowers fasting serum total and LDL cholesterol in adults: a meta-analysis of 14 randomized controlled trials, Xin-Xin Zheng, Yan-Lu Xu, Shao-Hua Li, Xu-Xia Liu, Rutai Hui, and Xiao-Hong Huang, *Am J Clin Nutr*. First published June 29, 2011, doi: 10.3945/ajcn.110.010926

## Abstract

**Background:** The effect of green tea beverage and green tea extract on lipid changes is controversial.

**Objective:** We aimed to identify and quantify the effect of green tea and its extract on total cholesterol (TC), LDL cholesterol, and HDL cholesterol.

**Design:** We performed a comprehensive literature search to identify relevant trials of green tea beverages and extracts on lipid profiles in adults. Weighted mean differences were calculated for net changes in lipid concentrations by using fixed-effects or random-effects models. Study quality was assessed by using the Jadad score, and a meta-analysis was conducted.

**Results:** Fourteen eligible randomized controlled trials with 1136 subjects were enrolled in our current meta-analysis. Green tea consumption significantly lowered the TC concentration by 7.20 mg/dL (95% CI: -8.19, -6.21 mg/dL; P

**Conclusion:** The analysis of eligible studies showed that the administration of green tea beverages or extracts resulted in significant reductions in serum TC and LDL-cholesterol concentrations, but no effect on HDL cholesterol was observed.

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