



## Effects of tea intake on blood pressure: a meta-analysis of randomised controlled trials

### **Summary of publication:**

Evidence from epidemiological studies suggest that there is an association between drinking tea and a reduced risk of developing cardiovascular diseases (CVD). Recently there has been renewed interest in the effects of tea on blood pressure, one of the main risk factors for CVD. A large number of clinical trials have reported effects of tea consumption on blood pressure and several meta-analyses on the topic have been published during the past year (1-5).

The most recent paper to add to this body of evidence is from a group from the Chinese Academy of Medical Sciences and Peking Union Medical College. Therein the scientists present a meta-analysis of all published randomised controlled trials investigating the acute and chronic effects of green and black tea intake on systolic and diastolic blood pressure.

Twenty-five intervention studies including 1476 subjects were included in the analysis. Overall, daily consumption of tea resulted in statistically significant reductions of 1.8 mmHg in systolic blood pressure and 1.4 mmHg in diastolic blood pressure respectively. Similar effects were also noted when the analyses were done separately for green and black tea. The authors also found that significant blood pressure lowering effects were only evident in longer term studies ( $\geq 12$  weeks) with no effects seen in short-term studies.

The authors conclude that, blood pressure is a consistent, strong and independent risk of cardiovascular mortality, and small changes in blood pressure (such as those brought about by long-term tea consumption) may have a significant impact on the risk of cardiovascular mortality.

### **For Abstract please see link below:**

Liu et al. Effects of tea intake on blood pressure: a meta-analysis of randomised controlled trials. Br J Nutr. 2014 Oct 14;112(7):1043-54,  
<http://journals.cambridge.org/action/displayFulltext?type=6&fid=9371126&jid=BJN&volumeId=112&issueId=07&aid=9371125&bodyId=&membershipNumber=&societyETOCSession=&fulltextType=RV&fileId=S0007114514001731#cjotab>

1. Effect of green tea consumption on blood pressure: a meta-analysis of 13 randomized controlled trials. Peng X, Zhou R, Wang B, Yu X, Yang X, Liu K, Mi M. Sci Rep. 2014 Sep 1;4:6251.
2. Effect of green tea supplementation on blood pressure among overweight and obese adults: a systematic review and meta-analysis. Li G, Zhang Y, Thabane L, Mbuagbaw L, Liu A, Levine MA, Holbrook A. J Hypertens. 2015 Feb;33(2):243-54.
3. The effect of black tea on blood pressure: a systematic review with meta-analysis of randomized controlled trials. Greyling A, Ras RT, Zock PL, Lorenz M, Hopman MT, Thijssen DH, Draijer R. PLoS One. 2014 Jul 31;9(7):e103247.
4. Green tea catechins and blood pressure: a systematic review and meta-analysis of randomised controlled trials. Khalesi S, Sun J, Buys N, Jamshidi A, Nikbakht-Nasrabadi E, Khosravi-Boroujeni H. Eur J Nutr. 2014 Sep;53(6):1299-311.
5. The effect of green tea on blood pressure and lipid profile: a systematic review and meta-analysis of randomized clinical trials. Onakpoya I, Spencer E, Heneghan C, Thompson M. Nutr Metab Cardiovasc Dis. 2014 Aug;24(8):823-36.

