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A meta-analysis of twenty-nine randomized controlled clinical trials shows a significant decrease in blood pressure with supplemental vitamin C.

VITAMIN C AND BLOOD PRESSURE MANAGEMENT

The current edition of the *American Journal of Clinical Nutrition* published the results of a meta-analysis that collected data on the effect of dietary vitamin C on blood pressure regulation. High blood pressure is a leading cause of cardiovascular disease in the US that affects approximately 1/3 of all adult Americans according to the American Heart Association.

This meta-analysis compiled data from twenty-nine clinical trials. The median oral dose of vitamin C was 500 mg/day, the median duration of the trials was 8 weeks, and trial size ranged from 10 to 120 participants. The statistical analysis of the data showed a decrease in systolic and diastolic blood pressure in both normotensive and hypertensive individuals. The changes in normotensive individuals averaged -3.84 mm Hg and -1.48 mm Hg for systolic blood pressure and diastolic blood pressure respectively. The change observed in hypertensive individuals was even greater, with corresponding reductions in systolic blood pressure and diastolic blood pressure of -4.85 mm Hg and -1.67 mm Hg. Reductions as little as 0.8 to 2 mmHg in systolic blood pressure have shown clinically significant results in reducing the risk of heart disease, heart failure, and stroke.

This study is encouraging because it shows another dietary method that may be useful in managing blood pressure. The authors do note however, that before vitamin C can be recommended as a form of treatment further studies must be performed that include larger sample sizes, are of longer duration, and that pay particular attention to the assessment of blood pressure.

Juraschek SP, Guallar E, Appel LJ, Miller ER. Effects of vitamin C supplementation on blood pressure: a meta-analysis of randomized controlled trials. The American Journal of Clinical Nutrition. 2012;4(9).

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