

# Clinical Update

## High-dose, short-term folate may cut blood pressure

A short-term, high-dose supplementation period with folate may reduce blood pressure, and improve other cardiovascular measures, suggests a small study from Italy.

*(European Journal of Clinical Nutrition, July 2009)*

Fifteen post-menopausal women received a daily dose of 15 mg of 5-methyltetrahydrofolate, the naturally circulating form of folate, for three weeks, and experienced an average drop in systolic and diastolic blood pressure of 4.5 and 5.3 mmHg, respectively.

The Italian researchers also reported a decrease in levels of homocysteine of 11.8 micromoles per litre for the folate group, compared to 8.7 micromoles per litre in the placebo group.

Studies have linked increased blood levels of the amino acid homocysteine to an increased risk of cardiovascular disease (CVD). It has been suggested that by lowering levels of homocysteine in the blood, people could cut the risk of cardiovascular disease. However, the topic of homocysteine and CVD is somewhat controversial with some studies reporting reductions in levels of the amino acid, but no reductions in the incidence of CVD over time.

### Study details

The Modena-based scientists recruited 30 healthy post-menopausal women and randomly assigned them to one of two groups. The first received the daily 5-methyltetrahydrofolate dose of 15 mg, while the other group received a placebo.

While the placebo was not found to modify any of the parameters, the women in the folate group experienced drops in their nocturnal systolic and diastolic blood pressure levels, *“in a way that was significantly different from that observed during placebo”*, said the researchers.

The high-dose folate supplement group also experienced significant reductions in homocysteine levels and in insulin resistance, whereby normal insulin amounts are inadequate to produce a normal insulin response from fat, muscle and liver cells.

Being a small, short-term study, the results need replication in larger, longer-term studies.

Source: [www.nutraingredients.com](http://www.nutraingredients.com)

