

# New study suggests dietary supplement can protect against pre-eclampsia

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A dietary supplement containing an amino acid and antioxidant vitamins, given to pregnant women at high risk of pre-eclampsia, can reduce the occurrence of the disease, finds a study published in the British Medical Journal today.

Pre-eclampsia is a serious condition where abnormally [high blood pressure](#) and other disturbances develop during pregnancy. It affects about 5% of all first-time pregnancies and is dangerous for both mother and child.

Pre-eclampsia is thought to be linked to a deficiency in L-arginine, an amino acid that helps to maintain a healthy blood flow during pregnancy. Some experts also think that antioxidant vitamins can help protect against the condition.

So a team of researchers in Mexico and the United States set out to test the theory that a combination of L-arginine and antioxidants would prevent the development of pre-eclampsia in high risk women.

The study took place at a hospital in Mexico City. [Pregnant women](#) at high risk of pre-eclampsia were randomly divided into three groups: 228 received daily food bars containing both L-arginine and antioxidant vitamins, 222 received bars containing only vitamins, and 222 received placebo bars (containing no L-arginine or vitamins).

The supplements began when women were around 20 weeks pregnant

and continued until delivery. Blood pressure and L-arginine levels were measured every three to four weeks at the hospital clinic.

The proportion of women developing pre-eclampsia was 30.2% in the placebo group, 22.5% in the vitamin only group, and 12.7% in the L-arginine plus vitamin group.

This means that women in the L-arginine plus vitamin group were significantly less likely to develop pre-eclampsia compared with the placebo group. However, vitamins alone did not significantly reduce the occurrence of pre-eclampsia.

The team also found that L-arginine plus vitamins significantly reduced the risk of [premature birth](#) compared with placebo.

"This relatively simple and low cost intervention may have value in reducing the risk of pre-eclampsia and associated preterm birth," conclude the authors. However, they say that further study is needed to determine whether these results can be repeated and to identify whether they are due to L-arginine alone or the combination of L-arginine and [antioxidant vitamins](#).

This trial reports an important finding but crucial questions remain, say two UK experts in an accompanying editorial. For instance, how do L-arginine and vitamins work together, what are the potential harmful effects, and what are the effects in other settings and populations?

They suggest that, before more trials are started, a rigorous systematic review is needed "of the numerous inconsistent strands of evidence relating to L-arginine and its possible effects on [pre-eclampsia](#)."

Provided by British Medical Journal

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