

# Vitamin C supplements linked to kidney stones

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New research from Karolinska Institutet in Sweden shows that men who take vitamin C supplements regularly run a higher risk of developing kidney stones. The study, which is published in the scientific periodical *JAMA Internal Medicine*, did not however observe an increased risk between kidney stones and multivitamins – which contain lower concentrations of vitamin C.

The research is based on data from a large population-based study of men from Västmanland and Örebro counties, who were monitored for 11 years. A total of 23,355 men were identified who had no history of kidney stones and who took either no dietary supplements or supplements in the form of vitamin C only. During the study period, 436 of the participants developed kidney stones that required [medical attention](#). The researchers then compared the risk of kidney stones in vitamin C-takers with that in men who did not take any supplements. The analysis was then repeated for men who took multivitamins.

The results of the study indicate that men who take vitamin C supplements (typically 1000 mg per tablet) are twice as likely to develop kidney stones as men who do not take any dietary supplements. The risk was also found to increase with the frequency of vitamin C supplement use. The regular use of multivitamins was not found to be associated with the risk of kidney stones.

The researchers believe that both the dose and combination of nutrients with which the vitamin C is ingested are important. For this reason, the

observed increase in risk does not apply to a normal [dietary intake](#) of vitamin C from fruit and vegetables. In Sweden, the RDI for vitamin C is 75 mg; the vitamin C content of supplements is commonly 1,000 mg per tablet, which is a considerably higher dose than which is obtained through food.

"As with all research, the results should be corroborated by other studies for us to be really sure," says study leader Agneta Åkesson, Associate Professor at Karolinska Institutet's Institute of [Environmental Medicine](#). "Nor can we say anything about whether women run the same risk as men. But given that there are no well-documented benefits of taking high doses of vitamin C in the form of [dietary supplements](#), the wisest thing might be not to take them at all, especially if you have suffered [kidney stones](#) previously."

**More information:** 'Ascorbic acid supplements and kidney stone incidence among men: A prospective study', Laura D K Thomas, Carl-Gustaf Elinder, Hans-Göran Tiselius, Alicja Wolk, Agneta Åkesson, *JAMA Internal Medicine*, online first publication, 4 January 2013.

Provided by Karolinska Institutet

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