

# Low vitamin B12 levels increase the risk of fractures in older men

December 11 2013

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Older men who have low levels of vitamin B12 have a higher risk of having fractures. These are the findings of researchers at the Sahlgrenska Academy as a part of an international study of a total of 1000 older men.

Osteoporosis is one of the world's most widespread diseases, and intensive research is under way worldwide to identify its causes and to be able to prevent [fractures](#).

In an extensive study, researchers at the Sahlgrenska Academy at the University of Gothenburg can now show that low levels of [vitamin B12](#) in the blood increases the risk of fractures in [older men](#).

This study is a part of an international research project initiated by the National Institutes of Health (NIH) in the US and comprises 11,000 men in total. In their part of the study, the Gothenburg researchers studied 1,000 Swedish men, MrOS Sweden, with an average age of 75, and used various methods to analyze the blood concentrations of the B vitamins B12 and folate, which are found in our food naturally.

The results show that the risk of suffering a fracture six years later was higher among men who had low B12 levels at the beginning of the study than men with normal B12 levels. In the quartile with the lowest B12 content, the risk was elevated by approximately 70 percent compared with the others. The risk increase pertained primarily to fractures in the lumbar region, where the risk increase was up to 120 percent.

"The higher risk also remains when we take other risk factors for fractures into consideration, such as age, smoking, BMI, BMD ([bone mineral density](#)), previous fractures, physical activity, the D-vitamin content in the blood and calcium intake," says Catharina Lewerin, researcher at the Sahlgrenska Academy.

Does this mean that older men can prevent fractures by eating more vitamin B12?

"It has not been scientifically established, but such studies are under way, including one large Dutch study where older individuals over the age of 65 are treated with both vitamin B12, folic acid and vitamin D to investigate the occurrence of fractures.

"Right now, there is no reason to eat more vitamin B12, but rather treatment shall only be applied in confirmed cases of deficiencies and in some cases to prevent deficiencies. For anyone who wants to strengthen their bones and prevent fractures, [physical activity](#) 30 minutes a day and quitting smoking is good self care," says Catharina Lewerin.

In this study, the researchers used a relatively new method called holotranscobalamin, which measures the amount of vitamin that is taken up in the cells, which is considered to be a more sensitive test for B12 deficiency.

Provided by University of Gothenburg

Citation: Low vitamin B12 levels increase the risk of fractures in older men (2013, December 11) retrieved 3 July 2023 from <https://medicalxpress.com/news/2013-12-vitamin-b12-fractures-older-men.html>

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