

# Drinking more milk as a teenager does not lower risk of hip fracture later

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Drinking more milk as a teenager apparently does not lower the risk of hip fracture as an older adult and instead appears to increase that risk for men, according to a study published by *JAMA Pediatrics*.

While drinking milk during adolescence is recommended to achieve peak [bone mass](#), milk's role in hip fractures later in life has not been established. Drinking more milk is associated with attaining greater [height](#), which is a risk factor for hip fracture, according to the study background.

Diane Feskanich, Sc.D., of Brigham and Women's Hospital and Harvard University, Boston, and colleagues examined the association between remembered teenage milk consumption and risk of hip fracture at older ages in a study of more than 96,000 men and women with a follow-up of more than 22 years. During the follow-up, 1,226 hip fractures were reported by women and 490 by men.

Study findings indicate teenage milk consumption (between the ages of 13-18 years) was associated with an increased risk of hip fractures in men, with each additional glass of milk per day as a teenager associated with a 9 percent higher risk. Teenage milk consumption was not associated with hip fractures in women. The association between drinking milk and hip fractures in men was partially influenced by height, according to the study

"We did not see an increased risk of hip fracture with teenage milk

consumption in women as we did in men. One explanation may be the competing benefit of an increase in bone mass with an adverse effect of greater height. Women are at higher risk for osteoporosis than men, hence the benefit of greater bone mass balanced the increased risk related to height," the authors comment.

Cheese intake during teenage years was not associated with the risk of hip fracture in either men or women.

The authors suggest that further research needs to be done to examine the roles of early milk consumption and height in preventing hip fractures in older adults.

"Dietary Guidelines for Americans, 2010 recommends the consumption of three cups of milk or equivalent dairy foods per day to promote maximal bone mass in adolescents. In this investigation, higher milk consumption at this age did not translate into a lower risk of [hip fracture](#) for older adults, and a positive association was observed among men," the study concludes.

In a related editorial, Connie M. Weaver, Ph.D., of Purdue University, West Lafayette, Ind., writes: "A main tenet of Feskanich and colleagues is that [milk consumption](#) in teens may have led to an increase in height as an adult. Height has been identified as a risk factor for osteoporosis. It is not clear why this would be true in men but not women, and especially given that men experience about one-fourth the hip fractures that [women](#) do."

"The investigators could have tested the contribution of other dietary protein sources (eggs, meat) to height and subsequent fracture risk to help confirm the impact of dietary protein more generally," Weaver continues.

"Practically speaking, does the study by Feskanich and colleagues offer a solution to osteoporosis? Without dairy, dietary quality is compromised. If milk intake in teens contributes to height, and therefore fracture risk in older men, who among [men](#) aspire to be shorter?" Weaver concludes.

**More information:** *JAMA Pediatr.* Published online November 18, 2013. [DOI: 10.1001/jamapediatrics.2013.3821](https://doi.org/10.1001/jamapediatrics.2013.3821)  
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