

[New study finds link between cardiovascular risk and hip fracture](#)

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A new study from Tulane University found that heart health may affect fracture risk after menopause, with women at a higher risk of cardiovascular disease more likely to experience hip and other major bone fractures. (Photo by iStock)

Postmenopausal women face a high risk of bone fractures. Due to declines in estrogen levels, which can lead to an increased risk of osteoporosis, even a low-impact fall can result in a serious hip, back or wrist injury. An estimated 1 in 3 women over 50 will experience a fracture due to bone loss in their lifetime.

A [new study](#) from Tulane University found that heart health may affect fracture risk after menopause, with women at a higher risk of cardiovascular disease more likely

to experience hip and other major bone fractures.

The association between cardiovascular disease risk and fractures was also stronger in women under 65, compared with women 65 and older.

In the study, published in [The Lancet Regional Health - Americas](#), researchers used the American Heart Association's recently developed [PREVENT score](#) to estimate a patient's 10-year risk of cardiovascular disease. Women in the study were grouped as low, borderline, intermediate or high risk.

"Taking care of your heart and bones should go hand in hand."

— Rafeka Hossain

The strongest link was seen with hip fractures. Women in the high cardiovascular risk group had a 93% higher risk of hip fracture than women in the low-risk group. Women in the intermediate-risk group had a 33% higher risk. Higher cardiovascular risk was also linked to a greater risk of fractures in weakened bones in major areas such as the hip, spine, forearm or shoulder.

The findings could indicate that the PREVENT score, developed by the AHA in 2024, may be a valuable tool in identifying patients who could benefit from a bone density screening or referral to a bone health specialist. Given the prevalence of both conditions and the economic burden they impose, reducing risk for both could improve the lives of older adults.

"While previous studies have suggested a link between cardiovascular disease and fracture risk, we were surprised by the magnitude associated with hip fracture risk," said lead author [Rafeka Hossain](#), a researcher with the Tulane University School of Medicine. "Both of these conditions are prevalent and costly, and reducing risk for both could improve the lives of older adults."

The study included data from more than 21,000 women in the Women's Health Initiative, one of the largest national women's health studies.

The findings add to growing evidence that heart health and bone health are closely connected. Researchers say several biological processes may help explain the link, including chronic inflammation, oxidative stress, changes in calcium regulation and

reduced blood flow to bone caused by atherosclerosis. Hormonal changes after menopause, especially declining estrogen levels, may also raise the risk of both heart disease and bone loss at the same time.

“Many of the same factors that protect your heart —regular physical activity, a balanced diet rich in calcium and vitamin D, not smoking and managing conditions like diabetes and high blood pressure —also help protect your bones,” Hossain said. “If you've been told you have intermediate or high cardiovascular risk, particularly if you are a postmenopausal woman, it may be worthwhile to talk to your doctor about bone health screening, given the many effective treatments available that reduce fracture risk.”

The study found that women in the high-risk group tended to experience fractures sooner than women in the low-risk group. For hip fractures, the median time to fracture was 15 years in the high-risk group versus nearly 20 years in the low-risk group.

The researchers caution that more work is needed before cardiovascular risk scores are added to standard fracture screening tools. But they say the findings suggest that women with intermediate or high cardiovascular risk may want to talk with their doctors about bone health, especially after menopause.

“Taking care of your heart and bones should go hand in hand,” Hossain said.