

# New findings on how diabetes impacts bone health

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In addition to causing blood sugar imbalances, type 1 diabetes can contribute to nerve damage and sensory abnormalities—a condition called neuropathy—and has been linked to a higher risk of bone fractures. A

new study published in the *Journal of Bone and Mineral Research* has examined the effects of type 1 diabetes and diabetic neuropathy on the skeleton.

Investigators found that type 1 diabetes and [diabetic neuropathy](#) have various impacts on bone structure, but these effects do not fully explain the higher fracture risk in patients with type 1 diabetes.

The results suggest that the increase in the risk of fractures in type 1 diabetes is multifactorial, with both skeletal and non-[skeletal features](#) involved.

"It is important to investigate what leads to an increased risk of fractures in type 1 diabetes. Our results suggest that in addition to bone features, balance and [muscle strength](#) also play a role," said lead author Tatiane Vilaca, MD, Ph.D., of the University of Sheffield, in the U.K. "These findings could help improve approaches to fracture prevention."

**More information:** Tatiane Vilaca et al, The Effects of Type 1 Diabetes and Diabetic Peripheral Neuropathy on the Musculoskeletal System: A Case–Control Study, *Journal of Bone and Mineral Research* (2021). [DOI: 10.1002/jbmr.4271](https://doi.org/10.1002/jbmr.4271)

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