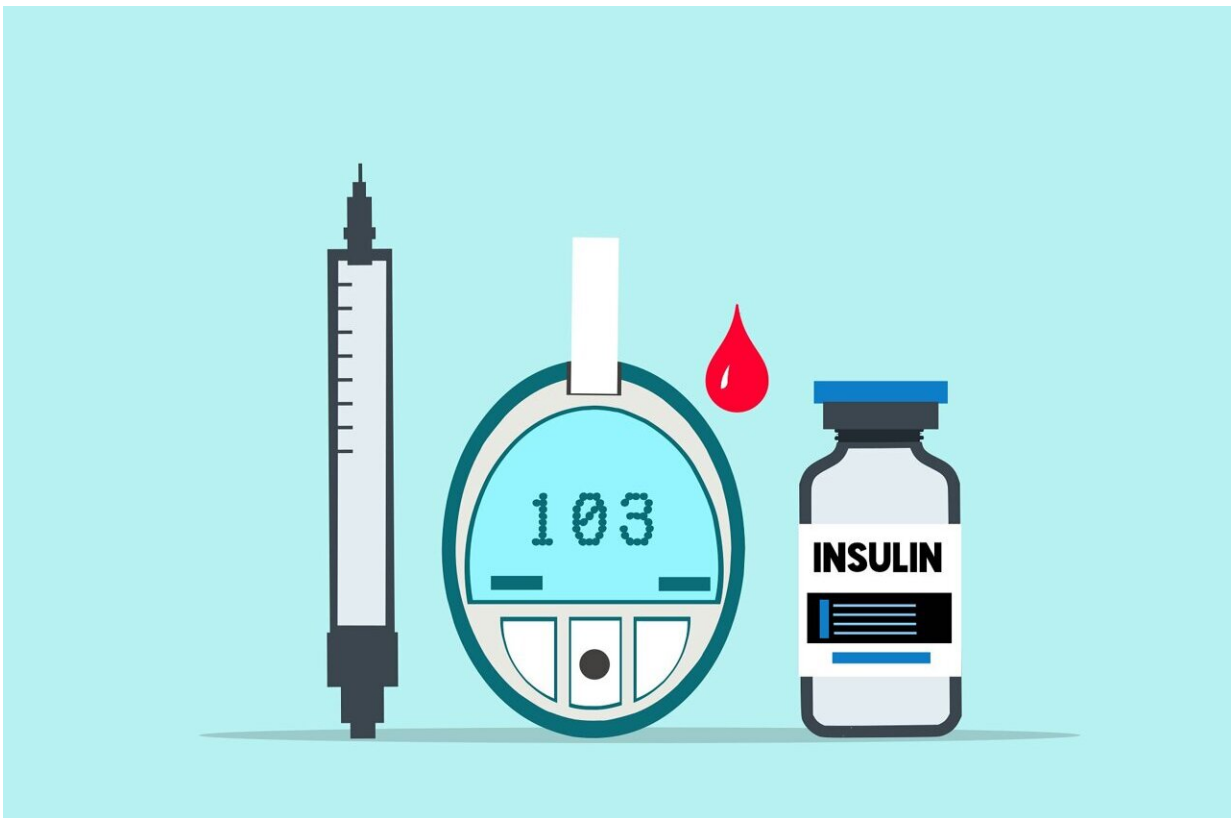


# Increased fracture risk in patients using insulin compared to metformin

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Patients with type 2 diabetes have an increased risk for fractures, despite their normal-to-high bone mineral density, according to research being presented Saturday, June 11 at ENDO 2022, the Endocrine Society's

annual meeting in Atlanta, Ga.

"Patients using insulin or sulfonylurea are at a high risk of fractures compared to metformin-only users, and the risk could be higher in non-obese and well-controlled [diabetic patients](#)," said Sung Hye Kong, M.D., of Seoul National University Bundang Hospital in Seongnam, South Korea.

Kong and colleagues acknowledge that anti-diabetic medications have long been suspected for an increased risk for fractures among this patient population. However, after investigating longitudinal comparative studies, they learned that evidence of these effects are limited.

For their study, the researchers included 6,694 patients aged  $\geq 50$  years from the common data model (CDM) database between 2008 and 2011, who used the same anti-diabetic medications for over a year.

They analyzed risks of major osteoporotic fractures and hip [fractures](#) in each group using the Cox proportional hazards model compared with a metformin group as a reference.

"From real-world data using the common data model, we found that insulin users were at elevated risk of major osteoporotic and hip fracture compared to metformin users, which was attenuated in [users](#) with a combination of insulin and [metformin](#)," Kong said.

This increased fracture risk among people who used insulin was exaggerated among people who are not obese and those with well-controlled diabetes. These findings suggest a need for routine fracture risk assessments in patients with diabetes.

Provided by The Endocrine Society

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