

Fracture risk up with prediabetes before menopause transition

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For women in midlife, prediabetes before the menopause transition

(MT) is associated with increased risk of incident fracture during and after the transition, according to a study published online May 23 in *JAMA Network Open*.

Albert Shieh, M.D., from the David Geffen School of Medicine at the University of California in Los Angeles, and colleagues examined whether prediabetes before the MT is associated with incident fracture during MT and after menopause. In a [cohort study](#) using data from an ongoing longitudinal study of the MT in diverse ambulatory, [women](#) in the U.S. Data (1996 to 2018) were included for 1,690 midlife women in premenopause or early perimenopause at study inception who did not have type 2 diabetes nor took bone-beneficial medications before the MT. Mean follow up was 12 years.

The researchers found that 13.3 percent of women had prediabetes at one or more study visits before MT. Overall, 11.1 and 7.6 percent of the 225 and 1,465 women with and without prediabetes, respectively, sustained a fracture.

Prediabetes before the MT was associated with more subsequent fractures after adjustment for confounding variables, including age, body mass index, [cigarette use](#), fracture before the MT, use of bone-detrimental medications, race and ethnicity, and study site, at the start of the MT (hazard ratio for fracture with prediabetes at all versus no pre-MT visits, 2.20). After controlling for bone mineral density at the start of the MT, this association was essentially unchanged.

"Because [midlife](#) fractures are associated with subsequent fractures in older age, future research could examine whether treating prediabetes before the MT reduces the risk of different fracture outcomes (e.g., hip, vertebral, nonvertebral, major osteoporotic) in later life," the authors write.

More information: Albert Shieh et al, Prediabetes and Fracture Risk Among Midlife Women in the Study of Women's Health Across the Nation, *JAMA Network Open* (2023). [DOI: 10.1001/jamanetworkopen.2023.14835](https://doi.org/10.1001/jamanetworkopen.2023.14835)

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