

# More Data on Fracture Risk with Thiazolidinediones

*Risk was particularly elevated among older women.*

A growing body of evidence has linked thiazolidinediones (TZDs; i.e., rosiglitazone and pioglitazone) to fracture risk. This adverse effect is plausible: Receptors for TZDs are expressed in bone, and rosiglitazone therapy affects bone turnover and reduces bone-mineral density ([JW Gen Med Apr 24 2007](#)).

The latest contribution to this literature is a retrospective study of 19,000 patients with type 2 diabetes who received oral antidiabetic drugs while enrolled in a Michigan health maintenance organization; 24% of these patients were prescribed TZDs. In multivariate analyses that were adjusted for numerous potentially confounding variables, women who used TZDs had significantly elevated risk for fractures compared with nonusers (hazard ratio, 1.57). The excess risk emerged after 1 year of treatment and was especially striking in older women (age, >65; HR, 1.72). Elevated fracture risk was not observed in men.

**Comment:** Randomized trials and observational studies have shown elevated fracture rates with TZD therapy, especially in women. This adverse effect provides another reason — along with the concerns about cardiovascular adverse events associated with TZDs — to avoid these drugs.

— [Allan S. Brett, MD](#)

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