

Estrone levels predict incident type 2 diabetes in men

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(HealthDay)—Levels of estrone are associated with increased risk of incident type 2 diabetes in a cohort of community-dwelling men, according to a study published online May 20 in *Diabetes Care*.

Guneet Kaur Jasuja, Ph.D., from Boston University, and colleagues examined the correlation between circulating estradiol and estrone levels and diabetes risk for 1,458 men participating in the [Framingham Heart Study](#) generation 2. Correlations between [hormone levels](#) at examination 7 (1998 to 2001) and incident diabetes at examination 8 (6.8 years later) were assessed prospectively. Fasting glucose >125 mg/dL, medication use, or both were used to define [type 2 diabetes](#).

The researchers found that, per cross-sectional doubling of estrone and estradiol levels, men with raised estrone and estradiol had 40 and 62 percent increased likelihoods of existing diabetes, respectively. At examination 7, free estrone was significantly associated with impaired fasting glucose (cross-sectional odds ratio, 1.28). With increasing quartiles of total and free estrone and estradiol there was an increase in risk for existing diabetes, and increasing quartiles of estrone levels

were associated with an increase in risk of incident diabetes. In multivariate longitudinal analyses, a two-fold increase in total or free estrone levels at examination 7 correlated with 77 and 93 percent increases, respectively, in the odds of incident diabetes at examination 8.

"Although both estradiol and estrone exhibit cross-sectional associations with diabetes in men, in longitudinal analyses estrone is a more sensitive marker of [diabetes risk](#) than estradiol," the authors write.

More information: [Abstract](#)
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