

# Insulin sensitivity is key renal marker in youth with T2DM

August 7 2014

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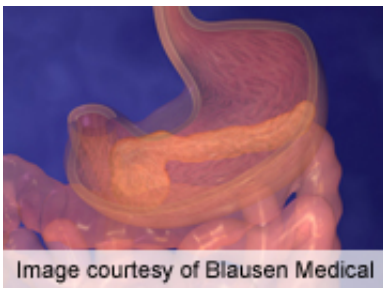


Image courtesy of Blausen Medical

(HealthDay)—Among adolescents with type 2 diabetes, insulin sensitivity is an important marker of renal health, according to research published online July 28 in *Diabetes Care*.

Petter Bjornstad, M.D., of the University of Colorado in Aurora, and colleagues measured glucose infusion rate (GIR) in [adolescents](#) stratified into groups according to type 2 diabetes (46 participants), obese (29 participants), and lean (19 participants). The authors assessed the association between measured insulin sensitivity (GIR) and early markers of diabetic nephropathy as indicated by estimated glomerular filtration rate (eGFR) and measured albumin-creatinine ratio (ACR).

The researchers found that, compared with obese or lean adolescents, adolescents with type 2 diabetes had significantly lower GIR, higher

eGFR, and higher ACR. About a third (34 percent) of adolescents with type 2 diabetes had albuminuria (ACR  $\geq 30$  mg/g) and 24 percent had hyperfiltration ( $\geq 135$  mL/min/1.73 m<sup>2</sup>). After adjustment for age, sex, Tanner stage, [body mass index](#), and HbA1c, adolescents with type 2 diabetes in the highest tertiles of ACR and eGFR had lower GIR than those in the mid and low tertiles (P = 0.02 and 0.04, respectively). After adjustment for sex and Tanner stage, only GIR, and not HbA1c, low-density lipoprotein cholesterol, or [systolic blood pressure](#), was associated with eGFR ( $\beta \pm SE$ :  $-2.23 \pm 0.87$ ; P = 0.02).

"To our knowledge, this report is one of the first to demonstrate an association between measured [insulin sensitivity](#) and early renal abnormalities in adolescents with type 2 diabetes," the authors write.

**More information:** [Abstract](#)

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Citation: Insulin sensitivity is key renal marker in youth with T2DM (2014, August 7) retrieved 19 April 2024 from

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