

Sleep affects HOMA-IR in overweight, obese teens

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(HealthDay)—Overweight and obese adolescents have persistently higher homeostasis model assessment of insulin resistance (HOMA-IR), with significant contributors including total sleep time and sleep efficiency, according to research published in a supplement to the September issue of *Diabetes, Obesity and Metabolism*.

Elke Dorenbos, from Maastricht University in the Netherlands, and colleagues conducted a literature review to examine anthropometric and lifestyle characteristics associated with [insulin sensitivity](#) in overweight and obese adolescents. In addition, they included new data from 137 overweight and obese adolescents.

The researchers found that adolescents with unfavorable fat partitioning and family history of noninsulin-dependent diabetes mellitus were at risk for persistent [insulin resistance](#). In the new cohort, overweight and obese adolescents showed a higher HOMA-IR post-pubertally. Significant contributors included [body mass index](#) (BMI) z-score, age, pubertal stage and prepubertally total sleep time and sleep efficiency.

"Overweight and obese adolescents showed a persistently higher instead of transiently higher HOMA-IR during puberty, associated with BMI z-score, age, pubertal stage and prepubertally less total sleep time and sleep efficiency," the authors write.

More information: [Abstract](#)
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