

Lack of sleep leads to insulin resistance in teens

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A new study suggests that increasing the amount of sleep that teenagers get could improve their insulin resistance and prevent the future onset of diabetes.

"High levels of [insulin resistance](#) can lead to the development of diabetes," said lead author Karen Matthews, PhD, of the University of Pittsburgh Department of Psychiatry. "We found that if teens that normally get six hours of sleep per night get one extra hour of sleep, they would improve insulin resistance by 9 percent."

The study, appearing in the October issue of the journal *SLEEP*, tracked the sleep duration and insulin resistance levels of 245 healthy [high school students](#). Participants provided a fasting blood draw, and they kept a sleep log and wore a wrist [actigraph](#) for one week during the school year. Sleep duration based on actigraphy averaged 6.4 hours over the week, with school days significantly lower than weekends.

Results show that higher insulin resistance is associated with shorter sleep duration independent of race, age, gender, [waist circumference](#), and [body mass index](#). According to Matthews, the study is the only one in healthy adolescents that shows a relationship between shorter sleep and insulin resistance that is independent of obesity.

The authors concluded that interventions to promote metabolic health in adolescence should include efforts to extend nightly sleep duration. The American Academy of Sleep Medicine reports that most teens need a

little more than nine hours of sleep each night.

More information: "Sleep Duration and Insulin Resistance in Healthy Black and White Adolescents," *SLEEP*.

Provided by American Academy of Sleep Medicine

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