Adolescents with overweight or obesity may be more vulnerable to negative cognitive effects following sleep restriction, according to a
study published online May 20 in *JAMA Neurology*.

Lindsay M. Stager, from University of Alabama at Birmingham, and colleagues examined the effects of adiposity and sleep on adolescent cognitive function. The analysis included 61 adolescents (mean age, 16.3 years; 31 with healthy weight and 30 with overweight or obesity) who completed two sleep conditions: adequate (mean duration, eight hours, 54 minutes) and restricted (mean duration, four hours, 12 minutes).

The researchers found that restricted sleep predicted poorer global cognition scores (restricted mean, 98.0 versus adequate mean, 103.2), fluid cognition scores (restricted mean, 94.5 versus adequate mean, 102.0), and cognitive flexibility scores (restricted mean, 84.8 versus adequate mean, 92.8) for adolescents with overweight or obesity.

Among adolescents with healthy weight, there were no differences. Following restricted sleep, adolescents with overweight or obesity also had poorer attention scores (mean, 80.0) versus adolescents with healthy weight (mean, 88.4). Following adequate sleep, there were no differences. Similar findings were seen for total body fat percentage.

"Improved sleep hygiene and duration in this group may positively impact their cognitive health," the authors write.

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