

# Sleep restriction tied to negative cognitive effects in teens with overweight, obesity

May 23 2024, by Lori Solomon

---



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.

**More information:** Lindsay M. Stager et al, Effect of Sleep Restriction on Adolescent Cognition by Adiposity, *JAMA Neurology* (2024). [DOI: 10.1001/jamaneurol.2024.1332](https://doi.org/10.1001/jamaneurol.2024.1332)

Copyright © 2024 [HealthDay](#). All rights reserved.

Citation: Sleep restriction tied to negative cognitive effects in teens with overweight, obesity (2024, May 23) retrieved 16 June 2024 from <https://medicalxpress.com/news/2024-05-restriction-negative-cognitive-effects-teens.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.