

Study shows body mass index is strongly linked to adiposity for children aged 8 to 19 years

June 4 2024, by Elana Gotkine



For children aged 8 to 19 years, body mass index (BMI) is strongly related to high levels of adiposity, according to a study [published](#) online June 3 in *Pediatrics*.

David S. Freedman, Ph.D., from the U.S. Centers for Disease Control and Prevention in Atlanta, and colleagues examined the cross-sectional relation of BMI to adiposity from 2011 through 2018 among 6,923 8- to 19-year-olds in the National Health and Nutrition Survey. Participants underwent dual-energy X-ray absorptiometry. Adiposity was expressed as fat mass index (FMI) and percentage body fat (percentage fat).

The researchers found that 90 to 94 percent of the variability of FMI and lean mass index (LMI) were accounted for by age and BMI in each sex, while the associations with percentage fat were weaker. The screening abilities of a BMI \geq CDC 95th percentile for high levels of adiposity and LMI were examined; cut points were selected so that the prevalences of high values of these variables would be similar to that for high BMI.

Of participants with a high BMI, 88 and 76 percent had a high FMI and high percentage fat, respectively. Compared with those with lower BMIs, those with a high BMI were 29 times more likely to have a high FMI; the comparable relative risks were 12 and 14 for high percentage fat and high LMI, respectively.

"Our findings provide further evidence of the utility of BMI in research and [clinical care](#)," the authors write.

More information: David S. Freedman et al, Screening Accuracy of BMI for Adiposity Among 8- to 19-Year-Olds, *Pediatrics* (2024). [DOI: 10.1542/peds.2024-065960](https://doi.org/10.1542/peds.2024-065960)

Jaime M. Moore et al, BMI: Still Going Strong at Age 50, *Pediatrics* (2024). [DOI: 10.1542/peds.2024-066370](https://doi.org/10.1542/peds.2024-066370)

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

Citation: Study shows body mass index is strongly linked to adiposity for children aged 8 to 19 years (2024, June 4) retrieved 20 June 2024 from <https://medicalxpress.com/news/2024-06-body-mass-index-strongly-linked.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.