

Fat distribution may influence bone strength in adolescence

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but for boys, there were no significant associations between VAT and SSI at the radius or tibia.

"These results that show a negative relationship between peripheral bone strength and VAT in girls, but greater total and central adiposity in boys, suggest these factors play a role in adequate acquisition of [bone](#) strength during adolescence," conclude the authors.

More information: [Abstract](#)
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(HealthDay)—Visceral adipose tissue (VAT) in girls and central adiposity in boys play a role in the acquisition of bone strength during adolescence, according to a study published online Oct. 30 in the *Journal of Bone and Mineral Research*.

Natalie A. Glass, Ph.D., from University of Iowa Hospitals & Clinics in Iowa City, and colleagues evaluated the longitudinal relationships among VAT, subcutaneous [adipose tissue](#) (SAT), and peripheral bone strength during adolescence among 182 girls and 167 boys aged 11 to 19 years.

The researchers found that [fat mass](#) and SAT were positively associated with strength-strain index (SSI), an indicator of peripheral bone strength, before but not after adjustment for lean mass in girls. In contrast, fat mass and SAT were negatively associated with radial SSI both before and after adjustment for lean mass in boys. Negative associations, in full models, were limited to VAT in girls and included radial and tibial SSI,

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