

## Study: Youths fail to meet physical activity guidelines

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While most of the time youths spent engaging in physical activity occurred at school, they were inactive for the vast majority of the school day, according to a new study that used accelerometers and GPS devices to track adolescents.

Children and adolescents should spend at least an hour a day participating in physical activities, and most of the activity should be of moderate-to-vigorous intensity, according to the *2008 Physical Activity Guidelines for Americans* (<http://health.gov/paguidelines/pdf/paguide.pdf>). However, only about 8% of youths meet those recommendations, according to objective data.

Knowing where youths are — and are not — physically active can help when designing interventions to improve activity rates, according to the authors of the study “Locations of Physical Activity as Assessed by GPS in Young Adolescents” (Carlson JA, et al. *Pediatrics*. Dec. 8, 2015, [www.pediatrics.org/cgi/doi/10.1542/peds.2015-2430](http://www.pediatrics.org/cgi/doi/10.1542/peds.2015-2430)).

Researchers analyzed data from the Teen Environment and Neighborhood (TEAN) study conducted from 2009-'11 to determine how many minutes per day youths were physically active and the proportion of time spent being physically active at home, at school, near home, near school and at other locations.

The study included a subsample of 549 TEAN participants ages 12-16 years who wore GPS trackers and accelerometers for a mean of seven days.

Results showed youths participated in an average of 39.4 minutes of moderate-to-vigorous activity per day. Older teens spent less time being active than younger teens, and girls were less active than boys. Participants' race/ethnicity and their parents' level of education were not associated with time spent being physically active.

Results also showed the following:

- Overall, 42.4% of activity occurred at school, 18.7% at home, 18.3% at other locations, 15% near home and 5.6% near school.
- Participants spent 10 more minutes being physically active on school days compare to non-school days (42 vs. 32 minutes).
- While most physical activity on school days occurred at school, it made up only 4.8% of the school day compared to 9.5% of time spent near home and 10.4% of time spent near school.

“Although a large amount of youth’s overall physical activity occurred at-school, the low proportion of at-school time spent physically active suggests considerable room for improvement through implementation of evidence-based school-focused strategies,” the authors stated.

They also listed several limitations to the study, including that GPS signals sometimes are inaccurate when indoors. Therefore, participants' locations could have been misclassified. In addition, because the study was observational, no conclusions can be drawn regarding whether spending more or less time in a location would result in an increase in physical activity.

A coordinated approach is needed so youths get the recommended 60 minutes a day of moderate-to-vigorous physical activity, the authors concluded. Health care providers can advocate for facilities and physical activity programs in all settings.

### **Resources**

- [AAP policy statement "The Built Environment: Designing Communities to Promote Physical Activity in Children"](#)
- [National Physical Activity Plan](#)
- [Bright Futures guidelines on promoting physical activity](#)
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