



## Study: 20 minutes of daily vigorous exercise optimal for teens

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About 20 minutes of vigorous physical activity (VPA) each day is optimal for teens' cardiorespiratory fitness (CRF), according to a new study.

Authors suggested simplifying existing physical activity recommendations in light of the findings.

"Undertaking 20 minutes of daily VPA to improve CRF may provide the means for adolescents to improve their long-term health outcomes at scale," they wrote in "[Intensity and Duration of Physical Activity and Cardiorespiratory Fitness](#)," (Burden SJ, et al. *Pediatrics*. June 13, 2022).

The [World Health Organization](#) and [U.S. Department of Health and Human Services](#) (HHS) call for children and adolescents to get 60 minutes per day of moderate-to-vigorous physical activity. The HHS guidelines also spell out how much should be vigorous, muscle- and bone-strengthening. But surveys have found most adolescents don't meet these guidelines.

Authors in the United Kingdom set out to look more closely at physical activity and cardiorespiratory fitness among 339 adolescents ages 13 and 14 years. The teens wore accelerometers on their wrists for seven consecutive days to track their physical activity and participated in 20-meter shuttle runs at progressively faster speeds to measure their cardiorespiratory fitness.

The study showed cardiorespiratory fitness improved as the amount of time doing vigorous activity each day increased, up to 20 minutes, then it plateaued. There was no association between light or moderate physical activity and cardiorespiratory fitness.

Authors noted the study could not prove the vigorous physical activity caused the improved fitness and didn't rule out other potential benefits of light or moderate activity.

However, they suggested it might be beneficial to simplify physical activity guidelines to call for 20 minutes of vigorous activity. Because the current guidelines call for moderate-to-vigorous activity, some teens may focus on the moderate. By focusing on vigorous activity, the time needed is reduced from 60 minutes to 20 minutes.

"A shorter target of 20 minutes might be easier to schedule daily and a focus on VPA would simplify messages about the intensity of the activity that is likely to improve CRF," authors wrote.

Two experts weighed in in a [related commentary](#) saying families would need more education about what constitutes vigorous physical activity — sweating, a red face, feeling short of breath and being unable to talk. They suggested adolescents work up to this by doing several minutes of vigorous activity at a time like running up and down the stairs a few times. They also said physical activity shouldn't be looked at as "all or nothing."

"Some exercise is better than none, and extrapolating from adult data, the biggest benefit likely occurs when we can help our most sedentary and least fit patients become a bit more active, even if it falls short of currently recommended levels," they wrote.