

Study links active video gaming with higher energy expenditure in children

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Compared with rest and sedentary video game play, active video gaming with dancing and boxing were associated with increased heart rate, oxygen uptake and energy expenditure in a study of 18 school children in England, according to a report published Online First by *Archives of Pediatrics & Adolescent Medicine*.

Low levels of physical activity have been linked to obesity. Active [video game](#) playing compared with traditional sedentary video game playing encourages more movement and could help children increase their physical activity levels, according to the study background.

Stephen R. Smallwood, M.Sc., and colleagues from the University of Chester, England, examined the physiologic responses and energy expenditure of active video gaming using a video game with a webcam-style sensor device and software technology that allows the player to interact directly without the need for a game controller, the authors explain in the background. The study included 10 boys and eight girls ages 11 to 15 years.

"Significant increases were observed in [heart rate](#), VO₂ [[oxygen uptake](#)] and energy expenditure during all gaming conditions compared with both rest and sedentary [game play](#)," the authors comment.

The games, Dance Central and Kinect Sports Boxing, increased energy expenditure by 150 percent and 263 percent, respectively, above resting values and were 103 percent and 194 percent higher than traditional

video gaming, according to the study.

"Although it is unlikely that active video game play can single-handedly provide the recommended amount of physical activity for children or expend the number of calories required to prevent or reverse the obesity epidemic, it appears from the results of this study that Kinect active game play can contribute to children's physical activity levels and [energy expenditure](#), at least in the short term," the authors conclude.

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