

## Study finds some active video games count as legitimate exercise

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BYU exercise scientist Bruce Bailey encourages his son Dallin to play Wii Boxing for exercise - as long as he's standing up.

A study led by a Brigham Young University exercise scientist found that middle-schoolers playing active video games such as Wii Boxing and Playstation's Dance Dance Revolution experienced moderate to vigorous exercise consistent with current physical activity recommendations.

For example, by measuring the energy the kids burned, they found that playing Wii Boxing for 20 minutes is equivalent to walking a mile at a brisk pace.

The study appears online Monday in Archives of Pediatrics & Adolescent Medicine, one of the JAMA/Archives journals.



"Previous research looked at these exergames' value as simply replacing what is otherwise a sedentary activity," said Bruce Bailey, BYU assistant professor of exercise science. "But we wanted to see if we can actually increase physical fitness with these types of games – and we think we can."

But before parents green-light even more hours of video games for their kids in the name of <u>exercise</u>, Bailey reminds that not all games, or even levels within games, are equal. Wii Boxing, for example, requires much more movement than Wii Golf. And his subjects played DDR with a moderately fast-paced song.

"Kids are smart – if they don't like moving around, they figure out the minimum movements required to play," Bailey said. "They can be quite economical in their energy expenditure."

Bailey's 8-year-old son is allowed to play Wii as long as he plays standing up. "That alone roughly doubles the energy burned," Bailey said.

They study, which also evaluated commercial fitness-oriented games found at fitness centers, showed that all of the games boosted energy burned in a significant way. There were no differences between overweight kids and those not overweight.

The researchers also found that the kids had a high enjoyment level – no surprise, but important when trying to find physical activities that <u>kids</u> will actually participate in.

"These games are not going to cure the childhood obesity epidemic," Bailey said. "But they can be one useful tool, among many, in working toward that goal."

Bailey's co-author on the paper is Kyle McInnis of the University of



Massachusetts, Boston.

Below are the games tested, along with the average calories burned per minute of play.

Activity - calories burned per minute

Resting – 1.1 calories

Treadmill walking 3 mph – 4.4

<u>Wii</u> (Boxing) - 4.0

DDR (Thirteen) – 4.9

Cyber Trazer (Goalie Wars) – 5.5

Light Space (Bug Invasion) – 5.7

Sportwall – 6.2

Xavix (J-Mat) – 6.7

## Provided by Brigham Young University

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