



Kids Feel the Burn With Virtual Exercise

Children Burn Calories, Boost Heart Rate by Playing Virtual Exercise Games

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May 30, 2008 (Indianapolis) -- They're still no substitute for outdoor sports, but active video games like Nintendo Wii can help your kids break a sweat and burn calories.

That's the bottom line of two new studies presented at the 55th Annual Meeting of the American College of Sports Medicine.

"If your kids are going to play a video game, and you know they will, these physically active games are better for their health than just moving their thumbs with traditional joysticks," says Gregory Brown, PhD, associate professor of exercise science at the University of Nebraska at Kearney.

And because the virtual exercise platforms meet gamers in the comfort of their own homes, they can actually be helpful in encouraging shy children to exercise, he tells WebMD.

Brown notes that the findings come at a time when nearly one in five school-aged children and teens are obese .

"Anything we can do to fight the epidemic helps," he says. Obesity in childhood and adolescence has been linked to obesity and an increased risk of cardiovascular disease in adulthood.

Wii Games Burn Calories

Brown and colleagues studied 25 youngsters whose average age was 11. The kids burned two to three times as many calories when playing Wii Boxing and Wii Tennis than when engaging in traditional handheld video games.

Their average heart rate shot up from 80 to 120 beats per minute -- "about what you'd expect when walking or doing a slow dance," Brown says.

Brown thought the kids would burn even more calories when playing Dance Dance Revolution, where participants stand in front of the television and boogie in step to instructions and graphics on the screen. But that didn't prove to be the case; all three games proved equally beneficial.

Video Games Improve Heart Rates

Researcher Viki Penpraze, a PhD candidate and instructor at the University of Glasgow in Scotland, conducted a similar study, comparing two active games to a handheld game and watching a Simpsons DVD. Participants included 13 children, all around the age of 10.

When the children watched a DVD or played the traditional hand-control video game, they didn't burn off any more calories than they would by reading a book, she says.

But it was a different story when they played Dance Mat Mania and Eye Toy Boxing, where players simulate boxers.

Their heart rates jumped from 80 to up to 160 beats per minutes, the equivalent of brisk walking or even jogging . And they burned two to three times as many calories as during the sedentary activities.

Not All Games Equal

A third study from the Netherlands suggests that not all active games are created equal.

The research team studied six gaming systems: Dance Dance Revolution, Wii Tennis, Eye Toy Beach Volleyball, Xerbike, Lasersquash, and Apartgame.

Results showed that kids didn't burn as many calories when playing Wii Tennis and Eye Toy Beach Volleyball as when playing the other games.

Nevertheless, "any active game is going to be better for your child than a handheld one," says researcher Sanne de Vries, MS, of TNO Prevention and Health in Leiden.

Not a Substitute for "Real" Sports

Commenting on the research, Edward J. Mendelsohn, MD, says, "There's no question that these newer, active video games help to burn calories."

Mendelsohn, an attending physiatrist at St. Vincent's Hospital in New York, says that after a few rounds of Wii Boxing with his 7-year-old son, he often breaks into a sweat.

"Nothing replaces being outside and engaging in active sports with your friends," he tells WebMD. "But if it's raining, this is a fun, easy way to incorporate some fitness into your kids' lives."

SOURCES: 55th American College of Sports Medicine Annual Meeting, Indianapolis, May 28-31, 2008. Gregory Brown, PhD, associate professor of exercise science, University of Nebraska, Kearney. Viki Penpraze, University of Glasgow, Scotland. Sanne de Vries, MS, TNO Prevention and Health, Leiden, Netherlands. Edward J. Mendelsohn, MD, attending physiatrist, St. Vincent's Hospital, New York.