

New generation electronic games boosts kids' physical activity at home

July 1 2013

Most electronic games are no better than watching TV in terms of the body movement and energy expenditure involved, say the authors. Kids in developed countries spend an estimated 38 to 90 minutes a day playing these games.

But what has not been clear is whether the newer generation "active" games, such as Sony PlayStation EyeToy and Move, dance mats, and Microsoft Xbox Kinect, are any better.

The Australian researchers compared the impact of removing traditional electronic games, involving a game pad, from the home or replacing them with more active newer generation versions among 56 ten to twelve year olds over a total of three years (2007-2010).

They wanted to see if either approach boosted kids' daily [physical activity levels](#) and/or curbed the amount of sedentary time they spent in front of a screen.

For a period of 8 weeks, the daily use of electronic games at home was banned, while levels of moderate to [vigorous physical activity](#) were measured using a portable device ([accelerometer](#)) worn on the hip.

This was followed by two identical periods of time during which the children were given daily access to traditional sedentary electronic games or active versions.

The children also kept 7-day diaries of the main activities they did for each 30 minute period during [waking hours](#).

The diaries showed that they spent a daily average of 1.5 hours on active leisure and transport and 4.5 hours on all sedentary leisure, of which screen time made up more than half.

Watching TV made up the largest chunk of [screen time](#), at an average of 107 minutes every day, followed by sedentary electronic games at an average of 44 minutes, and non-gaming computer use (24 minutes).

Levels of physical activity across the week didn't vary much for any of the three periods. But compared with after school access to traditional electronic games, removal of all devices increased daily moderate to vigorous physical activity by almost 4 (3.8) minutes and decreased sedentary time by almost 5 (4.7) minutes.

Giving the children access to active electronic games after school also significantly boosted daily physical activity levels by just over 3 minutes and reduced sedentary time by just over 6 minutes.

These differences may seem small, say the authors, and are unlikely to have any clinical impact by themselves. But they are significant, because of the rapidly increasing levels of exposure children have to electronic gaming on computers, tablets and smart phones, in addition to internet surfing and social media, they say.

"Therefore small changes across a variety of these platforms could result in a more substantial clinical impact," they write, adding: "While our study focused on the home setting, school offers another opportunity for more active technologies...such as sit-stand desks or active-input electronic media as part of lessons."

Furthermore, substituting older style [electronic games](#) with newer generation active versions may be easier for both kids and their parents to sustain than an outright ban, they conclude.

More information: [www.bmjopen.bmj.com/lookup/doi ...
/bmjopen-2013-002629](http://www.bmjopen.bmj.com/lookup/doi.../bmjopen-2013-002629)

Provided by British Medical Journal

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