Screentime linked to greater diabetes risk among children

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[**Nicola Davis**](https://www.theguardian.com/profile/nicola-davis)

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Spending over three hours watching TV or playing computer games every day increases risk of type 2 diabetes in childhood, study says

[Children](https://www.theguardian.com/society/children) who are allowed more than three hours of screentime a day are at greater risk of developing diabetes, new research suggests.

The study found that children who were glued to their screens for three or more hours a day scored higher on measures of body fat and had higher levels of resistance to the hormone insulin than their peers who spent an hour or less watching TV, videos or playing computer games.

But the authors cautioned that the research does not show that increased screentime itself results in raised levels of risk factors for the disease.

“Screentime could be capturing something about your behaviours – how much sedentary time you have and how much you break that up [or] what your dietary habits [are], potentially,” said Claire Nightingale, a medical statistician at St George’s, University of London and co-author of the research.

Writing in the journal [Archives of Disease in Childhood](http://adc.bmj.com/lookup/doi/10.1136/archdischild-2016-312016), Nightingale and colleagues described how they sought to probe whether for children, as is known for adults, screentime is linked to an increase in risk factors for type 2 diabetes. To do so, they analysed data from the Child Heart and Health Study in England – a survey carried out between 2004 and 2007 of almost 4,500 children, aged between nine and 10, from primary schools in three UK cities: London, Birmingham and Leicester.

Among the questions asked, data was collected on the length of time the children spent watching TV, video games or playing computer games. A host of physical measurements were also taken including measures of the children’s body fat and resistance to insulin – a hormone that controls blood glucose levels. In addition, levels of physical activity were monitored for 2,031 of the children.

The results revealed that while 37% of children reported that they spent an hour or less watching TV or playing computer games a day, 18% reported spending three or more hours in front of a screen.

Comparing the groups, researchers found the children who reported three or more hours of screentime scored higher on various measures of body fat. What’s more, these children had 10.7% higher levels of insulin after fasting, 10.5% higher levels of estimated insulin resistance and 9.3% higher levels of leptin – a hormone involved in controlling appetite – all of which are risk factors for type 2 diabetes.

The associations held even when factors such as socioeconomic status and levels of physical activity were taken into account.However the study did not not follow up on the children to see whether they actually went on to develop diabetes.

While the data was collected a decade ago, before electronic devices such as smartphones became ubiquitous, the team believe the link between screentime and diabetes risk is likely to remain. But Nightingale said it is difficult to offer advice to parents. “Potential decreases in screentime could be beneficial, but we can’t really say a cut-off point,” she said.

Dan Howarth, head of care at [Diabetes](https://www.theguardian.com/society/diabetes) UK said that the study highlights a worrying trend.

“The rising number of type 2 diabetes in children is an alarming statistic and addressing the nation’s childhood obesity issues should be the responsibility of us all,” he said.

“Encouraging physical activity over a sedentary lifestyle, such as that relating to screen time, and a healthy balanced diet clearly plays a significant part.”