

From the couch to the cuff: Time spent in front of a screen linked to high blood pressure

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A new study reveals that children who spend two hours or more in front of a screen (TV, computer, videogames etc.) have over 2.5 fold increase in their odds of having high blood pressure (BP). These odds are increased further by overweight and obesity. The study also showed that children with a low level of fitness had 3.4 times higher odds of high BP than those with a high level of fitness.

High BP in youth is associated with early markers of [cardiovascular disease](#) (CVD), and BP levels track from childhood to adulthood.

Although sedentary behaviours, physical inactivity and decreased fitness can predict high BP in adults, their relationship in [children](#) is not well established. Presented at the World Heart Federation's World Congress of Cardiology on Wednesday 7 May, this new study measured the relationship between physical inactivity, sedentary behaviours and fitness on blood pressure in eight to 10 year-old children at high risk of obesity.

Data were taken from a sample of 630 children aged 8 and 10 years, all of who had at least one obese parent. Five consecutive blood pressure readings were taken and [physical activity](#) was assessed for one week with an accelerometer, a device which measures movement. Children also filled out validated questionnaires, recording [physical inactivity](#) from TV viewing, computer use, [video game playing](#), studying and reading. Fitness was assessed using a standard incremental exercise test on an exercise bike. Height, weight and sexual maturation were measured

along with socio-economic background and children who had parents with a history of high BP were recorded to adjust the results.

"More than two hours per day of screen time was associated with a 2.7 fold increase in the odds of elevated diastolic [blood pressure](#). This association was more pronounced among overweight and obese youth. The study also emphasised that being physically active protects children from the risk of CVD. Physical activity prolongs lives regardless of inherited factors and protects against a vast number of health problems including cardiovascular disease." said Dr. Gilles Paradis, Chair of the Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Canada, lead author of the study.

This study adds to the evidence suggesting that if children are encouraged to be more physically active, it may be possible to reduce the number of CVD-related deaths. Physical inactivity is strongly linked to CVD and is in fact the fourth leading cause of mortality worldwide, attributable to approximately 3.2 million deaths a year. The World Health Organisation (WHO) recommends 60 minutes of moderate to vigorous intensity per day for children and 150 minutes of moderate-intensity activity for adults per week.

"Hypertension has earned its reputation as the silent killer and combating its early onset in children is absolutely vital. More needs to be done to combat sedentary behaviours developing at a young age, reducing this risk of mortality in future generations," commented Srinath Reddy, President of the World Heart Federation and of the Public Health Foundation of India.

Provided by World Heart Federation

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