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## Levels of physical activity and screen time usage - Preliminary analysis from the Irish National Children's Food Consumption Survey II

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### Abstract

Being physically active is associated with fundamental health benefits and assists with the maintenance of normal weight in children. The current World Health Organizations' recommendation is for children to accumulate 60 minutes of physical activity (PA) per day to obtain such benefits. Conversely, time spent in sedentary behaviours including watching screens (ST) are positively associated with the risk of overweight and obesity in young people. The aim of this research was to estimate PA levels and ST usage of Irish children and to examine the relationship with body fat.

This analysis was based on data collected from a nationally representative sample of Irish children aged 5–12-years (n = 591, 50% female) from The National Children's Food Consumption Survey II ([www.iuna.net](http://www.iuna.net)). The Child/Youth Physical Activity Questionnaires (C-PAQ/Y-PAQ) were used to measure PA and ST in 5–8 and 9–12-year-olds respectively. Both questionnaires were self-administered, recall instruments that assessed the frequency/duration of activities participated in over the previous 7-day period. The MET minutes (metabolic cost of the activity multiplied by the duration in minutes) of the PA's were calculated per child. Percentage body fat (%BF) was measured by a Tanita BC420MA device and participants were classified into categories based on their %BF, age and gender. Independent t-tests and ANOVA (post-hoc DunnettT-3) were used to assess differences between gender and %BF category.

Overall, children spent 93 mins/d being physically active with 69% meeting the > 1hr recommendation. There was a significant difference in the time spent undertaking PA between boys (99 mins/d) and girls (88 mins/d)  $p = 0.020$ . Children spent 107 mins/d watching screens with 68% meeting the < 2hr guidance. Girls spent significantly less time watching screens (89 mins/d) than boys (124 mins/d)  $p \leq 0.001$ . Children who had a normal %BF accumulated more PA MET mins/day compared to those who were classified as obese, which was significant in the total population ( $p = 0.007$ ), for boys ( $p \leq 0.001$ ), but not girls ( $p = 0.929$ ).

This preliminary analysis indicates that a high proportion of Irish children are meeting the PA and ST recommendations, with boys being more physically active and spending more time watching screens compared to girls. However, results should be interpreted with caution as PA and ST usage were self-reported by participants. The association between PA MET minutes and %BF suggest that advice to encourage PA participation to combat excess adiposity in Irish children is justified. Future work should examine the role of other potential determinants of obesity in this cohort.

### Conflict of Interest

There is no conflict of interest.