Ten-year follow-up of physical activity among adolescents

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A study from the University of Gothenburg, Sweden, shows that the drop in boys' physical activity during the teenage years levels off in early adulthood.

In 2000, about 1000 children aged 6-14 from southeast Sweden participated in an international study on physical activity, body constitution and physical self-perception.

The new study is a follow-up study on a sample of the 12-year-olds in the original study. The researchers followed and reassessed the group at age 15, 17 and 22. As in the first study, they measured physical activity using a pedometer.

The results indicate a reduction in total daily physical activity from the early teenage years to early adulthood. The boys show a dramatic drop between the ages of 12 and 15. Girls are on average more active than boys at both 17 and 22.

The activity pattern – the question of whether the most active children are also the most active as adults – is maintained only to a low extent. However, those who were deemed insufficiently active at age 12 seemed to maintain their activity pattern to a larger extent as adults.

'This is a problem. But low-activity children can be identified with simple methods like using a pedometer. They could then be targeted in school and through intervention programmes,' says Anders Raustorp,

Senior Lecturer at the Department of Food and Nutrition, and Sport Science, University of Gothenburg, and one of the researchers behind the new study.

While many previous studies have looked at what happens to adolescents' exercise habits, this study also explores their overall levels of daily physical activity. Studies including objective measures of physical activity over the course of a whole decade in this age span are extremely rare.

Raustorp has previously published global steps-per-day recommendations for both children (2004 and 2011) and adults (2008). He has also introduced the pedometer in Swedish research and as a useful method in physiotherapy, and has become an authority within pedometer research.

His and his colleagues' step-per-day recommendations for children and adolescents published in *International Journal of Behavioral Nutrition and Physical Activity* are in frequent use.

Objective measurements based on validated pedometers and accelerometers offer new opportunities to measure and communicate physical activity as number of steps per day. This simple measure continues to gain respect and popularity among both researchers and practitioners as an acceptable way to assess total daily physical activity.

More information: The study Tracking of pedometer determined physical activity. A 10 years follow-up study from adolescence to adulthood in Sweden was published online in December by *Journal of Physical Activity & Health*