Teens need vigorous physical activity and fitness to cut heart risk

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Vigorous activities include cycling, swimming and tennis. Credit: University of Exeter

Guidelines for teenagers should stress the importance of vigorous physical activity and fitness to cut the risk of heart disease, new research suggests.

Current NHS guidelines say people aged 5 to 18 should do at least 60 minutes of moderate to vigorous physical activity each day to improve their current and future health.

But in a study of adolescents aged 12 to 17, University of Exeter researchers found significant differences between the effects of moderate activity (such as brisk walking) and vigorous activity (activity that leaves people out of breath, such as team sports or running around a playground).
They found only vigorous activity had a significant effects on so-called "risk factors" that raise the chance of cardiovascular disease, such as body mass index (BMI) and waist size.

Poor cardiovascular fitness and muscular fitness – which are partly genetic but can be boosted by exercise – were linked more closely to risk factors for future heart problems than anything else the researchers tested.

The study, by researchers from numerous European countries, used data from the Healthy Lifestyle in Europe by Nutrition in Adolescence (HELENA) study.

"Many previous studies have put moderate and vigorous physical activity together when looking at potential health benefits, as this is what health guidelines are based on," said Dr. Alan Barker, from the University of Exeter.

"We wanted to separate these and see whether their effects varied.

"Moderate activity has many health benefits, but in specific terms of reducing risk factors for cardiovascular disease, it's vigorous activity that appears to make a difference."

Vigorous activity is defined as using at least six times the energy a person would use while at rest, while moderate activity means three times the resting level.

According to a report by the UK's Chief Medical Officers, vigorous activities include aerobic dancing, cycling, swimming and tennis.

Performing this type of activity is important for developing fitness, which the researchers identified as a key factor for cutting the risk of
heart disease.

The results also found a strong link between time spent watching TV and risk factors for developing diabetes or heart disease in later life.

Cardiovascular disease is a general term for all diseases of the heart and circulation, including coronary heart disease, angina, heart attack, congenital heart disease and stroke.

These cause more than a quarter of all deaths in the UK and, although they're extremely rare in young people, the process leading to them can "track all the way back to childhood", Dr. Barker said.

The findings are based on a cross-sectional study on 534 European adolescents (252 males, 282 females). The HELENA study was funded by the European Commission.

The paper, published in the International Journal of Cardiology, is titled "Physical activity, sedentary time, TV viewing, physical fitness and cardiovascular disease risk in adolescents: The HELENA study."


Provided by University of Exeter
