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Teenagers with a low muscular strength have a higher risk of dying early from heart disease

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Teenagers with a low muscular strength have a 30% higher risk of committing suicide before the age of 55 years, and a 65% higher risk of developing psychiatric diseases such as depression or schizophrenia. In addition, a low muscular strength during childhood and adolescence is a strong predictor of early death –i.e. before 55 years of age– from cardiovascular disease. A low muscular strength is as powerful a predictor as obesity and high blood pressure.

This was the conclusion drawn in a study recently published in the *Medical Journal* –a world-leading medical journal– by researchers at the University of Granada (Spain), the Karolinska Institutet in Stockholm (Sweden) and the University of Helsinki (Finland).

To carry out this study, the authors took a large sample of more than one million (1,142,599) Swedish male teenagers aged between 16 and 19 years, who were followed-up for a 24-month period.

Strength: An indicator of Health Status

Previous studies have demonstrated that muscular strength level during childhood and adolescence is a strong indicator of health status at these ages, and it is associated with disease risk factors in adulthood. Specifically, muscular strength is a powerful predictor of early mortality.

According to the principal researcher of this study, Francisco B. Ortega –a researcher at the School of Sports Sciences at the University of Granada and Karolinska Institutet– muscular strength can be measured through such simple tests as the grip strength test (handgrip dynamometric force) or the leg extension test (alternatively, jumping with the feet together).

The results of this study have many potential applications since we provide reference charts that can be used at school, sports and clinic centers to identify abnormally low strength in individuals, Professor Ortega states. Once they are identified, these individuals should be encouraged to participate in physical exercise programs to improve their fitness status and muscular strength to prevent the development of diseases in the future.

Provided by University of Granada

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