

Measuring waist circumference would improve the detection of children and adolescents with cardiometabolic risk

January 28 2014

A study led by researchers from IMIM (Hospital del Mar Medical Research Institute) and published in the journal *Plos One* concludes that including waist circumference measurements in clinical practice, together with the traditional height and weight measurements, would make it easier to detect children and adolescents with cardiometabolic risk, i.e. those with a higher predisposition to suffer from arteriosclerosis or type 2 diabetes. This study is the first of its kind in Spain on abdominal obesity in children and adolescents, one of the most important risk factors associated to this disorder, which has increased in recent years.

Researchers analysed data from 1521 Spanish children and adolescents aged 6 to 17 that participated in the ENKID study on nutrition and [dietary habits](#) and measured the proportion of abdominal obesity both in children and adolescents with a [normal weight](#) and those who were overweight. To do this they measured the [waist circumference](#) and height, known as the waist-to-height ratio, an indicator that is totally independent from age and gender, which estimates that abdominal obesity exists when the result is equal or higher than 0.5.

According to Helmut Schröder, a researcher from the research group on cardiovascular risk and nutrition at IMIM and also a member of the CIBER on Epidemiology and Public Health, "In Spain, 21.3% of children aged 6 to 11 and 14.3% of adolescents aged 12 to 17 have

abdominal obesity. From the total of Spanish children with a normal weight or overweight, 7.5% of those with a normal weight had abdominal obesity, while from those overweight, 49.2% have abdominal obesity. None of them would have been identified using the traditional screening methods. The same is true for adolescents, where 1.8% have a normal weight and 44.1% are overweight and wouldn't have been detected either."

According to Lluís Serra-Majem, a researcher from the Department of Clinical Science at the University of Las Palmas de Gran Canaria and a member of the CIBER on the Physiopathology of Obesity and nutrition, contrary to what may be thought, "there are people, both adults and young people, whose weight is totally normal and yet have [abdominal obesity](#) and vice-versa; people who are overweight and with fat distributed in all their body who, therefore face a lower cardiometabolic risk". Abdominal fat is important when suffering from cardiovascular or metabolic diseases at an early age and it has been seen that, when using traditional measurements, a number of [children](#) and [adolescents](#) with this cardiometabolic risk go undetected.

The epidemic of child obesity is one of the biggest challenges for health policies. Based on the results of this study, researchers believe that it is necessary to include waist circumference measurements in routine [clinical practice](#). It is a measurement that is easy to take, with no additional costs, and would only take doctors a few minutes. This would allow a greater control of this risk group that currently goes undetected and would allow preventing future cardiometabolic events at an early age or later on in life.

More information: Prevalence of abdominal obesity in Spanish children and adolescents. Do we need waist circumference measurements in pediatric practice? Helmut Schröder, Lourdes Ribas, Corinna Koebnick, Anna Funtikova, Santiago F. Gomez , Montserrat

Fíto, Carmen Perez-Rodrigo and Lluís Serra-Majem. *Plos One*, 2014.

Provided by Hospital del Mar Medical Research Institute

Citation: Measuring waist circumference would improve the detection of children and adolescents with cardiometabolic risk (2014, January 28) retrieved 23 April 2024 from <https://medicalxpress.com/news/2014-01-waist-circumference-children-adolescents-cardiometabolic.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.