The use of measures of obesity in childhood for predicting obesity and the development of obesity-related diseases in adulthood: a systematic review and meta-analysis

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Plain English summary

Predicting obesity and development of obesity-related diseases in adulthood

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Plain English summary

Obesity in adults increases the risk of health problems such as diabetes, heart disease and cancer. It is unclear whether or not being obese as a child is also linked to these adult diseases. It is also unclear if body mass index (BMI) is the best way of assessing whether or not a child is a healthy weight.

Our research investigated how useful it is to assess whether or not a child is obese. We also investigated if there was any evidence that using other measures, such as waist-to-hip ratio or waist circumference, might be better than BMI. We also assessed how accurate BMI and other measures are in children.

We performed systematically conducted reviews of the medical literature to find all the best research evidence to address these questions.

Our research found that obesity frequently persists from childhood to adulthood and that BMI is a reasonably accurate measure of obesity in children, which can help identify children who are likely to be obese in adulthood and who may benefit from losing weight. However, it does not identify the many healthy-weight children who will become obese or develop obesity-related diseases in adulthood. Most obesity-related diseases occur in adults who were of healthy weight in childhood.

There is a lack of evidence to help determine whether or not any other measure is better or worse than BMI for assessing childhood weight status. Children, parents and nurses found BMI was generally acceptable and easy to use.

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