

## Letters

# Implications of childhood obesity for adult health

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## Message on childhood obesity was missed

EDITOR We are concerned that Abbasi's website of the week review on the article by Wright et al may have left both health professionals and the public with the erroneous impression that obesity in (peripubescent) childhood does not predict obesity in later life and is not a cause for concern.<sup>1 2</sup>

The data of Wright et al show that body mass index in childhood and at age 50 is strongly associated for example, among children in the top quarter of weight at 9 years, 73% (59/81) become overweight or obese adults at age 50, whereas of those who are in the top quarter at 13, 82% (64/78) are overweight or obese at age 50. This is a highly significant association, and it is not true that thin children are just as likely to be fat adults. It is also important to remember that the childhood of this sample fell into a postwar environment where undernutrition and other stressors led to impaired growth, and adult obesity was not a public health issue. The environment has changed radically, to the extent that the prevalence of adult obesity in England has trebled in the past two decades, and so any associations in Wright et al's sample are all the more surprising.<sup>3</sup>

The prevalence of obesity in children is increasing, and it carries its own health risks irrespective of later adult morbidity.<sup>4 5</sup> Would health professionals in 40 years' time thank us for ignoring the public health implications of childhood obesity now? We think not.

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  4. Chinn S, Rona RR. Prevalence and trends in overweight and obesity in three cross sectional studies of British children, 1974-94. *BMJ* 2001; 322: 24-26[[Abstract/Free Full Text](#)].
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## Authors' reply

EDITOR We agree with Gibson et al that childhood body mass index tracks strongly with adult body mass index, a point we made clearly in our paper. However, our important and new observation was that childhood body mass index is a poor predictor of adult percentage body fat, suggesting that it is mainly build that tracks throughout life and not adiposity. Although we cannot be sure that body mass index in childhood was appropriately classified in all of the children in our study, the substantial differences between the results with body mass index and percentage body fat need to be understood.

Frank obesity during childhood was uncommon in our study, and we therefore could not analyse the fate of very obese children and did not purport to do so. Other studies suggest that they may indeed do badly. We were able to study whether plump (rather than obese) children should excite concern, and whether comparative thinness as a child offers protection either against obesity or risk of cardiovascular disease in adult life. We found consistent evidence that neither was true.

As we argued, our results were consistent with published studies. This research tends to be selectively quoted, apparently to support the paradigm that obesity has its origins in childhood, with the implication that by adulthood it is too late to do anything about it. For example, many studies, including ours, show that most obese adults were not fat children, but this is not generally known and is rarely mentioned when childhood obesity is discussed. Similarly, we found two previous studies similar to ours examining adult health consequences of childhood overweight.<sup>1 2</sup> The study that suggested a bad outcome is widely cited,<sup>1</sup> while the other much larger study, which was consistent with ours, was only recently rediscovered by one diligent reviewer and is seldom otherwise cited.<sup>2</sup>

We found no evidence that being a thin child is of long term health benefit. We thus argue that efforts to turn the tide of adult obesity will be misdirected if they are directed primarily at turning plump children into thin children. The target should be those who are truly at risk: inactive, overeating adults.

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