

Prevention of childhood obesity- Why start young?

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Childhood obesity is a serious problem and recent evidence suggests that most obesity is established during the preschool years and, because one in five obese 4-year olds will become obese adults, this has major implications for public health. The causes of obesity in preschool children are complex and multifactorial. Although 30-50% of the predisposition towards obesity in preschool children can be explained by genetic factors, environmental influences also play a crucial role.

Nutrition in infancy, a critical period for human development, can influence obesity. Supporting evidence comes from epidemiological studies, animal models and experimental interventions in humans. The mechanism is proposed to operate through nutritional influences on growth. Rapid infant growth increases the propensity to obesity and other major components of the metabolic syndrome (glucose intolerance, raised blood pressure and dyslipidaemia), the clustering of risk factors which predispose to cardiovascular morbidity and mortality.

Beyond infancy, the preschool period is a pivotal time during which long-term dietary and physical activity habits are established with potential lifelong effects on health. Evidence therefore suggests that the primary prevention should begin early in life and interventions aimed to improve diet, increase physical activity and achieve behavioural change are urgently sought to help prevent childhood obesity. The Trim Tots Healthy Lifestyle programme is one such intervention that has been shown to reduce obesity in preschool children. A reduction in BMI z-score was reported in children completing the 6 month intervention compared with controls. Longer term follow-up found the effect on BMI to be sustained.