



Title	Interventions to Prevent Obesity. A Systematic Review
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Aim

To evaluate the scientific evidence on the effects of interventions to prevent obesity in children/adolescents and adults.

Conclusions and results

Children/adolescents: The report includes 39 studies on 34 000 individuals. In 41% of studies and 40% of participants, prevention had a statistically significant positive effect on weight trends compared to the control groups. No negative results for intervention were found. Given the large number of studies it is improbable that random chance could skew the results in such a positive direction (p-value 0.000061). It is concluded that school-based interventions can reduce weight gain and the development of obesity in children and adolescents (Evidence Grade 1). The fact that many studies fail to demonstrate a positive effect may reflect the difficulty of achieving lifestyle changes through school-based interventions alone that do not include the home environment, free time, and the community at large.

Adults: The report includes 31 studies on 64 000 individuals. Interventions have included counseling on diets low in energy and fat and high in fiber. Most often, recommendations have been added to increase physical activity, to lower consumption of alcohol, and to stop smoking. We found that 45% of the studies reported a positive result in the intervention group as compared to controls, and it is improbable that the results occurred by chance (p-value 0.0128). It is concluded that obesity can be prevented in adults (Evidence Grade 2). The lack of effect in many studies reflects the difficulty of changing lifestyles through rather limited interventions.

Methods

Literature was searched in PubMed, Cochrane Library, and NHS EED up to May 2004 using search terms regarding overweight, obesity, and prevention. Reference lists of relevant articles and other reviews were also scrutinized. The studies had to address prevention (not

treatment) and include a control group (RCT/CCT), followup of at least 12 months, and a relevant weight outcome. Study quality was assessed, and the total evidence was rated on 3-grade scale.

Further research/reviews required

Mass interventions to promote good eating habits and increased physical activity are needed. All interventions must be sustained and goal oriented. Weight trends in the population must be monitored and related to the various efforts undertaken.