

2 Excluded studies

2.1 *Measures other than body mass index*

References were excluded from this review because they did not evaluate the utility of the measure of interest compared with body mass index (BMI), but compared with some other measure of overweight or obesity. For a full list of excluded references, please contact the Methods Team.

2.2 *Measures and morbidity in ethnic populations*

2.3 *Lifestyle interventions*

Study	Reason for exclusion
Bailes JR, Strow MT, Werthammer J, McGinnis RA, Elitsur Y (2003) Effect of low-carbohydrate, unlimited calorie diet on the treatment of childhood obesity: a prospective controlled study. <i>Metabolic Syndrome and Related Disorders</i> 1:221–225.	Less than 6 months study.
Balagopal P, Bayne E, Sager B, Russell L, Patton N, George D (2003) Effect of lifestyle changes on whole-body protein turnover in obese adolescents. <i>International Journal of Obesity and Related Metabolic Disorders</i> 27:1250–7.	Not only obese children as participants.
Ball SD, Keller KR, Moyer-Mileur LJ, Ding YW, Donaldson D, Jackson WD (2003) Prolongation of satiety after low versus moderately high glycemic index meals in obese adolescents. <i>Pediatrics</i> 111:488–94.	No weight outcomes reported.
Barbeau P, Gutin B, Litaker MS et al. (2003) Influence of physical training on plasma leptin in obese youths. <i>Canadian Journal of Applied Physiology</i> 28:382–96.	Weight outcomes were only reported at baseline.
Barbeau P, Litaker MS, Woods KF et al. (2002) Hemostatic and inflammatory markers in obese youths: effects of exercise and adiposity. <i>Journal of Pediatrics</i> 141:415–20	Only body fat percentage was reported.
Barbeau P (2002) Hemostatic and inflammatory markers in obese youths: effects of exercise and adiposity. <i>Journal of Pediatrics</i> 141(3)	No weight outcomes reported such as BMI, percentage overweight, or weight.
Becque MD, Katch VL, Rocchini AP, Marks CR, Moorehead C (1988) Coronary risk incidence of obese adolescents: reduction by exercise plus diet intervention. <i>Pediatrics</i> 81:605–12.	Less than 6 months (treatment and follow-up).
Berg-Smith SM, Stevens VJ, Brown KM et al. (1999) A brief motivational intervention to improve dietary adherence in adolescents. <i>Health Education Research, Vol. 14, No. 3, 399-</i>	Participants were not

Study	Reason for exclusion
410, June 1999	overweight/obese.
Bhargava A, Sachdev HS, Fall C et al. (2004) Relation of serial changes in childhood body-mass index to impaired glucose tolerance in young adulthood. <i>New England Journal of Medicine</i> 350.	Not children or adolescents.
Braet C, Mervielde I, Vandereycken W (1997) Psychological aspects of childhood obesity: a controlled study in a clinical and nonclinical sample. <i>Journal of Pediatric Psychology</i> 22 (1):59–71	No weight outcomes such as BMI, percentage overweight or weight were reported.
Braet C, Wydhooge K (2000) Dietary restraint in normal weight and overweight children. A cross-sectional study. <i>International Journal of Obesity</i> ;24: 314–318.	Not controlled study.
Brandou F, Dumortier M, Garandeau P, Mercier J, Brun JF (2003) Effects of a two-month rehabilitation program on substrate utilization during exercise in obese adolescents. <i>Diabetes and Metabolism</i> 29:20–7.	Less than 6 months duration (treatment and follow-up).
Cairella M (1991). Overweight and obesity: significance of diet therapy. <i>Clinica Terapeutica</i> ; 136 (6): 211-6.	Language other than English.
Davis K, Christoffel KK, Vespa H, Pierleoni MP, Papanastassiou R (1993) Obesity in preschool and school-age children. <i>Clinical Nutrition</i> 23:000	Only IBW measures.
Deforche B, Bourdeaudhuij I, Tanghe A, Debode P, Hills AP, Bouckaert J (2005) Post-treatment phone contact: a weight maintenance strategy in obese youngsters. <i>International Journal of Obesity</i> 29:543–6.	Less than 6 months study.
Deforche B, Bourdeaudhuij I, Tanghe A et al. (2003) Changes in fat mass, fat-free mass and aerobic fitness in severely obese children and adolescents following a residential treatment programme. <i>European Journal of Pediatrics</i> 162: 616–622.	Not controlled study.
Deforche B, Bourdeaudhuij I, Tanghe A, Debode P, Hills AP (2004) Changes in physical activity and psychosocial determinants of physical activity in children and adolescents treated for obesity. <i>Patient Education and Counseling</i> 55:407–415.	Not controlled study.
Dietz WH, Gortmaker SL (1985) Do we fatten our children at the TV set? Television viewing and obesity in children and adolescents. <i>Pediatrics</i> 75:000.	Cohort study.
Disc collaborative research group (1995). Dietary intervention study in children (DISC) with elevated low-density-lipoprotein cholesterol. <i>JAMA</i> . May 10;273(18):1429-35	Participants were not overweight/obese.

Study	Reason for exclusion
Ebbeling CB, Leidig MM, Sinclair KB, Hangen JP, Ludwig DS (2003) A reduced-glycemic load diet in the treatment of adolescent obesity. <i>Archives of Pediatrics and Adolescent Medicine</i> 157:773–9.	No age stratification for the participants.
Effective Public Health Practice Project (2004) Effective Public health Practice project 2004. http://library.umassmed.edu/ebpph/	Participants were not overweight/obese.
Emes C, Velde B (1990) An activity based weight control program. <i>Adapted Physical Activity Quarterly</i> 7.	Less than 6 months duration (treatment and follow-up).
Endo H, Tagaki Y, Nozue T, Kuwahata K, Uemasu F, Kobayashi A (1992) Beneficial effects of dietary interventions on serum lipid and apolipoprotein levels in obese children. <i>American Journal of Diseases of Children</i> 146:000.	Less than 6 months duration and no weight outcomes.
Epstein LH, McCurly J, Wing RR, Valoski A (1986). Family-based behavioral weight control in obese young children. <i>Journal of the American Dietetic Association</i> . Apr;86(4):481-4.	Not controlled study
Epstein (1996) Family-based behavioural intervention for obese children. <i>International Journal of Obesity Related Metabolic Disorders</i> . 1996 Feb;20 Suppl 1:S14-21	Narrative review.
Epstein LH, McCurly J, Wing RR, Valoski A (1990) Five-year follow-up of family-based behavioral treatments for childhood obesity. <i>Journal of Consulting and Clinical Psychology</i> 58(5):661–664.	No precise figures of changes in percentage overweight were reported.
Ewart CK, Young DR, Hagberg JM (1998) Effects of school-based aerobic exercise on blood pressure in adolescent girls at risk for hypertension. <i>American Journal of Public Health</i> 88:000.	Participants were not overweight/obese.
Faith MS, Berman N, Heo M et al. (2001) Effects of contingent television on physical activity and television viewing in obese children. <i>Pediatrics</i> 107:1043–8.	Less than 6 months duration (treatment and follow-up).
Fanaria P, Somazzi R, Nasrawi F et al. (1993) Haemorheological changes in obese adolescents after short-term diet. <i>International Journal of Obesity</i> 17:487.	Less than 6 months duration (treatment and follow-up).
Fernandez Paredes F, Sumano- Avendado S (1986). Obesity in childhood and adolescence: evaluation after 1 year of integrated treatment. <i>Boletin Medico del Hospital Infantil de Mexico</i> . 43(9):555-557.	Language other than English.
Foreyt J (1991) Cuidando El Corazon – a weight reduction intervention for Mexican Americans. <i>American Journal of Clinical Nutrition</i> 53:000.	No weight outcomes reported such as BMI, percentage

Study	Reason for exclusion
Foster GD, Wadden TA, Brownell KD (1985) Peer-led program for the treatment and prevention of obesity in the schools. <i>Journal of Consulting and Clinical Psychology</i> 53:538–40.	overweight or weight. Intervention delivered by non clinical professionals in non-clinical setting.
Frenn M, Malin S, Bansal NK (2003) Stage-based interventions for low-fat diet with middle school students. <i>Journal of Pediatric Nursing</i> 18:000.	Health promotion.
Gilbertson HR, Thorburn AW, Brand Miller JC, Chondros P, Werther GA (2003) Effect of low-glycemic-index dietary advice on dietary quality and food choice in children with type 1 diabetes. <i>American Journal of Clinical Nutrition</i> 77:000.	No weight outcomes reported.
Goldfield GS, Kalakanis LE, Ernst MM, Epstein LH (2000) Open-loop feedback to increase physical activity in obese children. <i>International Journal of Obesity and Related Metabolic Disorders</i> 24:888–92.	No weight outcomes reported.
Gortmaker SL (1999) Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. <i>Archives of Pediatrics and Adolescent Medicine</i> 153(4):000.	Non RCT with aim other than to treat childhood obesity.
Graf C, Sylvia VR, Benjamin K et al. (2005) Data from the StEP TWO programme showing the effect on blood pressure and different parameters for obesity in overweight and obese primary school children. <i>Cardiology in the Young</i> 15:291–8.	Not controlled study.
Gutin B (2002) Effects of exercise intensity on cardiovascular fitness, total body composition, and visceral adiposity of obese adolescents. <i>American Journal of Clinical Nutrition</i> 75(5):000.	Only body mass composition and fat mass were reported.
Hartmuller VW (1994) Creative approaches to cholesterol lowering used in the dietary intervention study in children. <i>Topics of Clinical Nutrition</i> 10:71.	Participants were not overweight/obese.
Hills AP, Parker AW (1988) Obesity management via diet and exercise intervention. <i>Child: Care, Health and Development</i> 14:409.	Less than 6 months duration (treatment and follow-up).
Hoerr SL, Nelson RA, Essex-Sorlie D (1988) Treatment and follow-up of obesity in adolescent girls. <i>J Adolesc Health Care</i> . 1988 Jan;9(1):28-37.	No comparison. No control group reported.
Hopper CA, Gruber MB, Munoz KD, Herb RA (1992) Effect of including parents in a school-based exercise and nutrition program for children. <i>Research Quarterly for Exercise and Sport</i> 63:000.	Intervention delivered by non-clinical professionals in non-clinical setting

Study	Reason for exclusion
Hunter GR, Weinsier RL, Bamman MM, Larson DE (1998) A role for high intensity exercise on energy balance and weight control. <i>International Journal of Obesity</i> 22:489.	Narrative review.
Isnard P, Michel G, Frelut ML et al. (2003) Binge eating and psychopathology in severely obese adolescents. <i>International Journal of Eating Disorders</i> 34:000.	Non-RCT with aim other than treatment of childhood obesity.
Johnson WG (1997) Dietary and exercise interventions for juvenile obesity: long-term effect of behavioral and public health models. <i>Obesity Research</i> 5: 257–261.	Less than 6 months duration intervention. Five year follow-up weight data was self-reported.
Lappe JM, Rafferty KA, Davies M, Lypaczewski G (2004) Girls on a high-calcium diet gain weight at the same rate as girls on a normal diet: a pilot study. <i>Journal of the American Dietetic Association</i> 104:1361.	Participants were not overweight or obese.
Lauer RM, Obarzanek E, Hunsberger S, Horn S (2000) Efficacy and safety of lowering dietary intake of total fat, saturated fat, and cholesterol in children with elevated LDL cholesterol. <i>American Journal of Clinical Nutrition</i> 72:000.	Participants were not overweight/obese.
Lazzer S, Boirie Y, Poissonier C et al. (2005) Longitudinal changes in activity patterns, physical capacities, energy expenditure, and body composition in severely obese adolescents during a multidisciplinary weight-reduction program. <i>International Journal of Obesity</i> 29:37–46.	Not controlled study.
Ludwig DS, Majzoub JA, Al Zahrani A, Dallal GE, Blanco I, Roberts SB (1999) High glycemic index foods, overeating, and obesity. <i>Pediatrics</i> 103:E26.	No weight outcomes reported.
Maffeis C, Schutz Y, Chini L, Grezzani A, Piccoli R, Tato L. Effects of dinner composition on postprandial macronutrient oxidation in prepubertal girls. <i>Obesity Research</i> 2004. 12(7):1128-35.	Weight outcomes only reported at baseline.
Matheson DM (2004) Children's food consumption during television viewing. <i>American Journal of Clinical Nutrition</i> 79(6):000.	Non-randomised trial with aim other than to treat childhood obesity.
Moon YI (2004) Effects of behavior modification on body image, depression and body fat in obese Korean elementary school children. <i>Yonsei Medical Journal</i> 45:61–67.	Only 8 weeks duration.
Mo-suwan L, Pongprapai S, Junjana C, Puetpaiboon A (1998) Effects of a controlled trial of a school-based exercise program on the obesity indexes of preschool children. <i>American Journal</i>	Intervention delivered by non-clinical

Study	Reason for exclusion
<i>of Clinical Nutrition</i> 68:1006.	professionals in non-clinical setting.
Nelson G. Evaluation of a social problem-solving skills program for third and fourth grade students (1988) <i>American Journal of Community Psychology</i> 16(1):000.	Participants were not obese.
Nuutinen O (1991) Long-term effects of dietary counselling on nutrient intake and weight loss in obese children. <i>European Journal of Clinical Nutrition</i> 45:287.	Results from each group were combined. No clear conclusions can be drawn.
Nuutinen O, Knip M (1992) Long-term weight control in obese children: persistence of treatment outcome and metabolic changes. <i>International Journal of Obesity</i> 16:000.	Results from each group were combined. No clear conclusions can be drawn.
Nuutinen O, Knip M (1992) Predictors of weight reduction in obese children. <i>European Journal of Clinical Nutrition</i> 46:785–94.	
Obarzanek E (2001) Long-term safety and efficacy of a cholesterol-lowering diet in children with elevated low-density lipoprotein cholesterol: seven year results of the dietary intervention study in children (DISC). <i>Pediatrics</i> 107:256.	Participants were not overweight/obese.
Owens S, Gutin B, Allison J et al. (1999) Effect of physical training on total and visceral fat in obese children. <i>Medicine and Science in Sports and Exercise</i> 31:143–8.	Less than 6 months duration (treatment and follow-up).
Patrick K, James MS, Sallis JF et al. (2001) A multicomponent program for nutrition and physical activity change in primary care. <i>Archives of Pediatrics and Adolescent Medicine</i> 155:000.	Weight loss or reduction of BMI not reported.
Patrick K, Norman GJ, Calfas KJ et al. (2004) Diet, physical activity, and sedentary behaviors as risk factors for overweight in adolescence. <i>Archives of Pediatrics and Adolescent Medicine</i> 158:385–90.	Participants were not overweight/obese.
Pena M, Bacallao J, Barta L, Amador M, Johnston FE (1987) Fiber and exercise in the treatment of obese adolescents. <i>Journal of Adolescent Health Care</i> 10:30.	Less than 6 months duration (treatment and follow-up).
Robinson TN (1999) Behavioral treatment of childhood and adolescent obesity. <i>International Journal of Obesity</i> 23(2):000.	Narrative review.
Rocchini AP, Katch V, Anderson J et al. (1988) Blood pressure in obese adolescents: effect of weight loss. <i>Pediatrics</i> 82:16–23.	Less than 6 months duration (treatment and follow-up).
Rocchini AP, Katch V, Schork A, Kelch RP (1987) Insulin and blood pressure during weight loss in obese adolescents. <i>Hypertension</i> 10:267–73.	Less than 6 months duration (treatment and follow-up).
Rudolf MCJ, Greenwood DC, Cole TJ et al. (2004) Rising obesity and expanding waistlines in schoolchildren: a cohort	Cohort study.

Study	Reason for exclusion
study. <i>Archives of Disease in Childhood</i> 89:235.	
Sahota, P (2001) Evaluation of implementation and effect of primary school based intervention to reduce risk factors for obesity. <i>British Medical Journal</i> 323:000.	Health promotion programme.
Sahota, P (2001) Randomised controlled trial of primary school based intervention to reduce risk factors for obesity. <i>British Medical Journal</i> 323:000.	Health promotion programme.
Sallis JF, McKenzie TL, Alcaraz JE, Kolody B, Hovell MF, Nader PR (1993) Project SPARK. Effects of physical education on adiposity in children. <i>Annals of the New York Academy of Sciences</i> 699:127–36.	Intervention delivered by non-clinical professionals in non-clinical setting.
Sasaki J, Shindo M, Tanaka H, Ando M, Arakawa K (1987) A long-term aerobic exercise program decreases the obesity index and increases the high density lipoprotein cholesterol concentration in obese children. <i>International Journal of Obesity</i> 11:339.	Intervention delivered by non-clinical professionals in non-clinical setting.
Sondike SB, Copperman N, Jacobson MS (2003) Effects of a low-carbohydrate diet on weight loss and cardiovascular risk factor in overweight adolescents.[see comment]. <i>Journal of Pediatrics</i> 142:253–8.	Less than 6 months (treatment and follow-up).
Sothorn MS (1993) An effective multidisciplinary approach to weight reduction in youth. <i>Annals of the New York Academy of Sciences</i> 699:000.	No details of interventions.
Sothorn MS, Hunter S, Suskind RM, Brown R, Udall JR, Blecker U (1999) Motivating the obese child to move: the role of structured exercise in pediatric weight management. <i>Southern Medical Journal</i> 92:000.	Not comparing to any other intervention.
Sothorn MS, Udall JR, Suskind RM, Vargas A, Blecker U (2000) Weight loss and growth velocity in obese children after very low calorie diet, exercise, and behaviour modification. <i>Acta Paediatrica</i> 89:000.	Before and after study.
Stallings VA, Archibald EH, Pencharz PB, Harrison JE, Bell LE (1988) One-year follow-up of weight, total body potassium, and total body nitrogen in obese adolescents treated with the protein-sparing modified fast. <i>American Journal of Clinical Nutrition</i> 48:91–4.	Before and after study.
Sung RY, Yu CW, Chang SK, Mo SW, Woo KS, Lam CW (2002) Effects of dietary intervention and strength training on blood lipid level in obese children. <i>Archives of Disease in Childhood</i> 86:407–10.	Less than 6 months duration (treatment and follow-up).
Suskind RM, Sothorn MS, Farris P et al. (1993) Recent advances in the treatment of childhood obesity. <i>Annals of the New York</i>	Cohort study.

Study	Reason for exclusion
<i>Academy of Sciences</i> 699:181.	
Suttapreyasri D, Kanpoem J, Suthontan N, Krainam J, Boonsuya C (1990) Weight-control training models for obese pupils in Bangkok. <i>Journal of the Medical Association of Thailand</i> 73:000.	Intervention delivered by non-clinical professionals in non-clinical setting.
Tucker LA (1986) The relationship of television viewing to physical fitness and obesity. <i>Adolescence</i> 21:000.	Non RCT with aim other than to treat childhood obesity.
Vandongen R, Jenner DA, Thompson C et al. (1995) A controlled evaluation of a fitness and nutrition intervention program on cardiovascular health in 10 to 12 year old children. <i>Preventive Medicine</i> 24:9.	Not overweight/obese children.
Warren JM, Henry CJ, Lightowler HJ, Bradshaw SM, Perwaiz S (2003) Evaluation of a pilot school programme aimed at the prevention of obesity in children. <i>Health Promotion International</i> 18:287–96.	Prevention of obesity in children.
Warren JM, Henry JK, Simonite V. Low-glycemic index breakfasts and reduced food intake in preadolescent children (2003) <i>Pediatrics</i> 112:414.	No weight outcomes reported.
Watts K, Beye P, Siafarikas A et al. (2004) Exercise training normalizes vascular dysfunction and improves central adiposity in obese adolescents. <i>Journal of the American College of Cardiology</i> 43:1823–7.	Less than 6 months duration.
Watts K, Beye P, Siafarikas A et al. (2004) Effects of exercise training on vascular function in obese children. <i>Journal of Pediatrics</i> 144:620–5.	Less than 6 months duration.
Zametkin XXX (2004) Psychiatric aspects of child and adolescent obesity: a review of the past 10 years. <i>Journal of the American Academy of Child and Adolescent Psychiatry</i> 43(2):000.	Narrative review.

2.4 Pharmacological interventions

We also scanned reference lists of other guidelines and reviews for additional studies and recommendations on both orlistat and sibutramine. These are listed below for completeness.

Study	Source	Reason
Barlow SE, Dietz WH (1998) Obesity evaluation and treatment: Expert Committee recommendations. The Maternal and Child Health Bureau, Health Resources and Services Administration and the Department of Health and	Searches	Drug treatment not mentioned.

Study	Source	Reason
Human Services. <i>Pediatrics</i> 102(3):E29.		
Batch JA, Baur LA (2005) Management and prevention of obesity and its complications in children and adolescents. <i>Medical Journal of Australia</i> 182(3):130–5.	Searches	No additional references.
Daniels, S (2001) Pharmacological treatment of obesity in paediatric patients. [Review] [33 refs]. <i>Paediatric Drugs</i> 3(6):405–410.	Searches	No additional references.
Daniels S (2005) Regulation of body mass and management of childhood overweight. <i>Pediatric Blood and Cancer</i> 44(7):15.	Searches	No additional references.
Daniels SDK, Arnett RH, Eckel SS et al. (2005) Overweight in children and adolescents: Pathophysiology, consequences, prevention, and treatment. <i>Circulation</i> 111(15):19.	Searches	No additional references.
Cuttler L JL, Whittaker XXX, Kodish ED (2005) The overweight adolescent: Clinical and ethical issues in intensive treatments for pediatric obesity. <i>Journal of Pediatrics</i> 146(4):2005.	Searches	No additional references.
Hayman LL. Hughes S (2004) Obesity: focus on prevention and policy. <i>Journal of Cardiovascular Nursing</i> 19(3):217–8.	Searches	No additional references.
Kolagotla L, Adams W (2004) Ambulatory management of childhood obesity. <i>Obesity Research</i> 12(2):275–83.	Searches	Drug treatment not mentioned.
Michaud PA, Suris JC, Viner R (2004) The adolescent with a chronic condition. Part II: healthcare provision. <i>Archives of Disease in Childhood</i> 89(10):943–9.	Searches	General healthcare for adolescents, not obesity.
Rudolf MCJ, Greenwood DC, Cole TJ et al. (2004) Rising obesity and expanding waistlines in schoolchildren: a cohort study. <i>Archives of Disease in Childhood</i> 89(3):235–7.	Searches	No additional references.
Speiser PW (2005) Childhood obesity. Consensus Development Conference. Guideline. Journal Article. Practice Guideline]. <i>Journal of Clinical Endocrinology and Metabolism</i> 90(3):1871–87.	Searches	No additional references.
Suris JC, Michaud PA, Viner R. The adolescent with a chronic condition. Part I: developmental issues. <i>Archives of Disease in Childhood</i> 2004; 89 (10):938–942.	Searches	General healthcare for adolescents, not obesity.
Trent ME, Laufer MR (2000) Obesity in adolescent girls – Emerging role of reproductive	Searches	No additional references.

Study	Source	Reason
health professionals. <i>Journal of Reproductive Medicine</i> 45(6):445–53.		
Vieweg WV (2005) Newer antipsychotic drugs and obesity in children and adolescents. How should we assess drug-associated weight gain? <i>Acta Psychiatrica Scandinavica</i> 111(3):177–84.	Searches	Not treatment of obesity, but link between antipsychotic drug treatment and weight gain.
Viner R (2005) Managing obesity in secondary care: a personal practice. <i>Archives of Disease in Childhood</i> 90; 385–90.	Searches	No additional references.
Yanovski JA (2003) Treatment of pediatric and adolescent obesity. <i>Journal of the American Medical Association</i> 9; 289(14):1851–3.	Searches	No additional references.

2.5 Surgery [reorder alphabetically?]

Study	Source	Reason
Yanovski A, Yanovski JA (2001) Intensive therapies for pediatric obesity. [Review] [62 refs] <i>Pediatric Clinics of North America</i> 48:1041–53.	Searches	Narrative review. No additional references.
Albanese CT (2005) The ‘skinny’ on adolescent bariatric surgery. <i>Journal of Laparoendoscopic and Advanced Surgical Techniques Part A</i> :15.	Searches	Narrative review. No additional references.
Alvarez-Leite JL (2004) Nutrient deficiencies secondary to bariatric surgery. [Review] [93 refs] <i>Current Opinion in Clinical Nutrition and Metabolic Care</i> 7:569–75.	Searches	Narrative review. No additional references.
Strauss BJ (2002) Gastric bypass surgery in adolescents with morbid obesity. <i>Nutrition in Clinical Practice</i> 17:43.	Searches	See Strauss 2001.
Rothschild B, Masheb R, Brody M, Toth C, Burke-Martindale C, Grilo C (2004) Childhood maltreatment in severely obese male and female bariatric surgery candidates. <i>Obesity Research</i> 12:A75.	Searches	Abstract only. See Grilo 2005.
Barlow SE (2004) Bariatric surgery in adolescents: for treatment failures or health care system failures? <i>Pediatrics</i> 114:252–3.	Searches	Narrative review. No additional references.
Grilo CM, Masheb RM, Brody M, Toth C, Burke-Martindale CH, Rothschild RS (2005) Childhood maltreatment in extremely obese male and female bariatric surgery candidates. <i>Obesity Research</i> 13:123–30.	Searches	Participants were not children or adolescents.

Study	Source	Reason
Daviglus ML, Pirzada A (2005) In the long run, healthcare costs appear to be related to overweight and obesity at younger ages. <i>Expert Review of Pharmacoeconomics and Outcomes Research</i> 000:5.	Searches	Not relevant to topic.
Fielding G (2004) Laparoscopic adjustable gastric banding as surgical treatment for severely obese adolescents – Initial experience with 44 children.	Searches	Abstract only. See Dolan 2004/2003.
Flodmark FE (2004) New insights into the field of children and adolescents' obesity: The European perspective. <i>International Journal of Obesity</i> 28:000.	Searches	Narrative review. Checked references. Added Hayr 2003 for assessment.
Garcia VF, Langford L, Inge TH. Application of laparoscopy for bariatric surgery in adolescents. [Review] [125 refs], <i>Current Opinion in Pediatrics</i> 2003;15:248–55.	Searches	Narrative review.
Greenstein RJ, Rabner JG (1995) Is adolescent gastric-restrictive antiobesity surgery warranted? <i>Obesity Surgery</i> 5:000.	Searches	Not clear when BMI and weight were measured in the follow-up period.
Haynes B (1959) Creation of a bariatric surgery program for adolescents at a major teaching hospital. <i>Pediatric Nursing</i> 31:21–22.	Searches	Case-study with no reports on weight loss values.
Hayr T, Widhalm K. Laparoscopic gastric banding in morbidly obese adolescents. <i>Ann Nutr Metab</i> 2003; 47: 427.	Searches	Abstract only. No published references found July 2005.
Ippisch H (2004) Does gastric bypass surgery decrease cardiac risk factors in morbidly obese young patients? Abstract of the Section on Cardiology and Cardiac Surgery of the American Academy of Pediatrics National Conference and Exhibition	Searches	Abstract only.
Kaur H (2003) Childhood overweight: an expanding problem. <i>Treatments in Endocrinology</i> 2:000.	Searches	Narrative review. No additional references.
Klish WJ, Brandt ML, Helmuth MA (2004) Obesity surgery in pediatrics. <i>Journal of Pediatric Gastroenterology and Nutrition</i> 39:2–4.	Searches	Narrative review.
Yap N, Frydenberg H (2004) Obesity in adolescence – Is surgery a good option. <i>Obesity Surgery</i> 14:931.	Searches	Abstract only.
Reichard K (2004) Bariatric surgery in morbidly	Searches	Narrative review. No

Study	Source	Reason
obese adolescents. <i>Maryland Medicine</i> 5:16–18.		additional references.
Rigg CA (1975) Proceedings: Jejunoileal bypass by morbidly obese adolescent. <i>Acta Paediatrica Scandinavica</i> Suppl:62–4.	Searches	Comment.
Rodgers BM (2004) Bariatric surgery for adolescents: a view from the American Pediatric Surgical Association. <i>Pediatrics</i> 114:255–6.	Searches	No clear values on weight loss.
Sugerman HJ, Sugerman EL, DeMaria EJ et al. (2003) Bariatric surgery for severely obese adolescents. <i>Journal of Gastrointestinal Surgery</i> 7:102–107.	Searches	Gastroplasty, distal gastric bypass, and long-limb gastric bypass.
Inge TH, Donnelly LF, Vierra M, Cohen AP, Daniels SR, Garcia VF (2005) Managing bariatric patients in a children's hospital: Radiologic considerations and limitations, <i>Journal of Pediatric Surgery</i> 40:000.	Searches	Narrative review.
White J, Cheek D, Haller AJ (1974) Small bowel bypass is applicable for adolescents with morbid obesity. <i>American Surgeon</i> 40:000.	Searches	Small bowel bypass procedure.

2.6 Harms

Study	Reason for exclusion
Dae A, Robinson P, Lawson M, Turpin JA, Gregory B, Tobias JA (2002). Psychologic and physiologic effects of dieting in adolescents". <i>Southern Medical Journal</i> , Sep;95(9):1032-41	Not professionally delivered weight loss program
Faith MS, Scanlon KS, Birch LL, Francis LA and Sherry B(2004). Parent-Child Feeding Strategies and Their Relationships to Child Eating and Weight Status". <i>Obesity Research</i> . Nov; 12(11):1711-22.	Not professionally delivered weight loss program
Field AE, Camargo CA Jr, Taylor CB, Berkley CS and Colditz GA (1999). Relation of peer and media influences to the development of purging behaviours among preadolescent and adolescent girls. <i>Archives of Pediatric and Adolescent Medicine</i> , Nov; 153(11):1184-9.	Not professionally delivered weight loss program

Study	Reason for exclusion
Field AE, Austin SB, Taylor CB, Malspeis S, Rosner B, Rockett, HR, Gillman, MW and Colditz GA (2003). Relation between dieting and weight change among preadolescents and adolescents. <i>Pediatrics</i> . Oct; 112(4):900-6.	Not professionally delivered weight loss program
Hill AJ (2004). Does dieting make you fat? <i>British Journal of Nutrition</i> . 2004 Aug; 92 Suppl 1:S15-8.	Review. References checked
Irving LM and Neumark-Sztainer D(2002). Integrating the prevention of eating disorders and obesity: feasible or futile? <i>Preventive Medicine</i> . 2002 Mar; 34(3):299-309.	Narrative review on prevention of eating disorders.
Keller C and Stevens SR (1996). Assessment, etiology, and intervention in obesity in children. <i>Nurse Practitioner</i> , Sep; 21(9):31-6, 38, 41-2.	Narrative review.
Lowe MR and Timko CA (2004). Dieting: really harmful, merely ineffective or actually helpful? <i>British Journal Nutrition</i> . 2004 Aug; 92 Suppl 1:S19-22.	Review. References checked
Neumark-sztainer D, Wall M, Story M, Fulkerson JA (2004). Are family meal patterns associated with disordered eating behaviors among adolescents? <i>Journal of Adolescent Health</i> , Nov; 35(5):350-9.	Not professionally delivered weight loss program
Neumark-Sztainer D, Wall M, Story M, Fulkerson JA (2002). Weight-related concerns and behaviors among overweight and non-overweight adolescents: implications for preventing weight-related disorders. <i>Archives of pediatrics and Adolescent Medicine</i> , 156.	Not relevant
Patton et al (1999). Onset of adolescent eating disorders in overweight and obese adults: population based cohort study over 3 years. <i>BMJ</i> , 318.	Not professionally delivered weight loss program
Pesa J (1999). Psychosocial factors associated with dieting behaviors among female adolescents". <i>Journal of School Health</i> , May; 69(5):196-201.	Not professionally delivered weight loss program
Pugliese MT, Lifshitz F, Grad G, Fort P, Marks-Katz M(1983). Fear of obesity. A cause of short stature and delayed puberty. <i>New England Journal of Medicine</i> . Sep 1; 309(9):513-8.	Not effect of weight management programme – underweight children with fear of obesity as a cause of short stature or delayed puberty.

Study	Reason for exclusion
Reilly JJ (2003). Health consequences of obesity. Archives of Disease in Childhood, Sep; 88(9):748-52.	Not relevant systematic review. References checked.
Stice E, Cameron RP, Killen JD, Hayward C, Taylor CB (1999). Naturalistic weight-reduction efforts prospectively predict growth in relative weight and onset of obesity among female adolescents. Journal of consulting and clinical psychology, Dec;67(6):967-74	Not professionally delivered weight loss program
Stice E, Presnell K, Groesz L, Shaw H (2005). Effects of a weight maintenance diet on bulimic symptoms in adolescent girls: an experimental test of the dietary restraint theory. Health Psychology, Jul; 24(4):402-12.	Participants were not overweight or obese.
White JH (2000). Eating disorders in elementary and middle school children: risk factors, early detection, and prevention". Journal of School Nursing, Apr;16(2):28-35; quiz 36	Literature review. References checked.

2.7 *Update searches excluded studies*

Study	Reason for exclusion
Anderson ZJ, Anderson ZJ. Childhood obesity: assessing the cost. [Review] [6 refs]. J Okla State Med Assoc 2004; 97(10):418-421.	Narrative review
Bacchini D, Duval M, Valerio P, Pasanisi F, Bacchini D, Duval M et al. Eating disorder variables and self image in Italian girls attending a weight control clinic. Eat Weight Disord 2005; 10(2):125-132.	Less than 6 months
Barton SB, Walker LL, Lambert G, Gately PJ, Hill AJ, Barton SB et al. Cognitive change in obese adolescents losing weight. Obes Res 2004; 12(2):313-319.	Non-clinical setting
Berkel LA, Poston WS, Reeves RS, Foreyt JP, Berkel LA, Poston WSC et al. Behavioral interventions for obesity. [Review] [29 refs]. J Am Diet Assoc 2005; 105(5 Suppl 1):S35-S43	Narrative review. References checked.
Berry D, Galasso P, Melkus G, Grey M, Berry D, Galasso P et al. Obesity in	Narrative review. References checked.

youth: implications for the advanced practice nurse in primary care. [Review] [84 refs]. J Am Acad Nurse Pract 2004; 16(8):326-334.	
Berry D, Sheehan R, Heschel R, Knafl K, Melkus G, Grey M. Family-Based Interventions for Childhood Obesity: A Review. Journal of Family Nursing, Nov 2004, vol 10, no 4, p 429 449 , ISSN : 1074 8407 Publisher : Sage Publications , US, http ://www sagepublications com / 2004.	Narrative review
Boyd GS, Koenigsberg J, Falkner B, Gidding S, Hassink S. Effect of obesity and high blood pressure on plasma lipid levels in children and adolescents. Pediatrics 2005; 116(2 Part 1):442-446.	Retrospective case-control.
Brownell KD. Fast Food and Obesity in Children. Pediatrics 2004; 113(1 I):132	Narrative review
Chartier K, Chartier K. The economic impact of childhood obesity. Nephrol News Issues 2004; 18(11):40-41	Narrative review
Clemmens D, Hayman LL, Clemmens D, Hayman LL. Increasing activity to reduce obesity in adolescent girls: a research review. [Review] [39 refs]. J Obstet Gynecol Neonatal Nurs 2004; 33(6):801-808.	Not overweight/ obese participants
Deforche B, Bourdeaudhuij ID, Tanghe A, Hills AP, Bode PD. Changes in physical activity and psychosocial determinants of physical activity in children and adolescents treated for obesity. Patient Education & Counseling 2004; 55(3):407-415.	Not controlled study.
Deforche B, Bourdeaudhuij I, Tanghe A, Debode P, Hills AP, and Bouckaert J. Post-treatment phone contact: a weight maintenance strategy in obese youngsters. International Journal of Obesity 2005, 29 (5): 543-6.	Non-clinical setting.
Deforche B, Bourdeaudhuij ID, Tanghe A, Debode P, Hills AP, Bouckaert J. Role of physical activity and eating behaviour in weight control after treatment in severely obese children and adolescents. Acta paediatrica 2005; 94: 464-470.	Different groups based on perceptions of the participants towards physical activity and diet, and not actually different treatment procedures.
Denzer C, Reithofer E, Wabitsch M, Widhalm K, Denzer C, Reithofer E et al. The outcome of childhood obesity	Not controlled study

management depends highly upon patient compliance. Eur J Pediatr 2004; 163(2):99-104	
Dietrich S, Widhalm K. A multidisciplinary therapy program for morbidly obese children and teenagers: results after 7 months. International Pediatrics 2004; 19 (2): 83- 88.	Not controlled study
Dorsey KB, Wells C, Krumholz HM, Concato JC, Dorsey KB, Wells C et al. Diagnosis, evaluation, and treatment of childhood obesity in pediatric practice. Arch Pediatr Adolesc Med 2005; 159(7):632-638.	Medical records review
Durant N, Cox J. Current treatment approaches to overweight in adolescents. Current Opinion in Pediatrics 2005; 17(4):454-459.	Narrative review
Faith MS, Berkowitz RI, Stallings VA, Kerns J, Storey M, Stunkard AJ. Parental feeding attitudes and styles and child body mass index: Prospective analysis of a gene-environment interaction. Pediatrics 2004; 114(4):e429-e436.	Not controlled study
Flodmark CE, Lissau I, Moreno LA, Pietrobelli A, Widhalm K, Flodmark CE et al. New insights into the field of children and adolescents' obesity: the European perspective. [Review] [65 refs]. Int J Obes Relat Metab Disord 2004; 28(10):1189-1196	Narrative Review.
Gately PJ, Barth JH, Radley D, Cooke CB. Acute physiological outcomes of a children's weight-loss camp using exercise and dietary therapy. American Journal of Recreation Therapy 2005; 4(2):13-20.	Less than 6 months.
Gelbrich G, Reich A, Muller G, Kiess W, Gelbrich G, Reich A et al. Knowing more by fewer measurements: about the (In)ability of bioelectric impedance to enhance obesity research in children. J Pediatr Endocrinol 2005; 18(3):265-273.	Did not modify any of the recommendations.
Gillis L, McDowell M, Bar-Or O. Relationship between summer vacation weight gain and lack of success in a pediatric weight control program. Eating Behaviors 2005; 6(2):137-143.	Retrospective study
Graf C, Rost SV, Koch B, Heinen S,	Not relevant to KCQs'

Falkowski G, Dordel S et al. Data from the StEP TWO programme showing the effect on blood pressure and different parameters for obesity in overweight and obese primary school children. <i>Cardiol Young</i> 2005; 15(3):291-298.	
Herrera EA, Johnston CA, Steele RG. A comparison of cognitive and behavioral treatments for pediatric obesity. <i>Children's Health Care</i> 2004; 33(2):151-167.	Narrative review. References checked.
Horn LV, Obarzanek E, Friedman LA, Gernhofer N, Barton B. Children's adaptations to a fat-reduced diet: The Dietary Interventions Study in Children (DISC). <i>Pediatrics</i> 2005; 115: 1723-1733.	Children no overweight/obese
Hydrie MZI, Basit A, Hakeem R, Ahmadani MY, Masood MQ. Comparison of fasting glucose, insulin levels and lipid profile in normal and overweight children. <i>Journal of Postgraduate Medical Institute</i> 2001;(1):8-13	Participants did not undergo weight management programme.
Janssen I, Katzmarzyk PT, Srinivasan SR, Chen W, Malina RM, Bouchard C et al. Combined influence of body mass index and waist circumference on coronary artery disease risk factors among children and adolescents. <i>Pediatrics</i> 2005; 115(6):1623-1630.	Not controlled study
Kanda A, Kamiyama Y, Kawaguchi T, Kanda A, Kamiyama Y, Kawaguchi T. Association of reduction in parental overweight with reduction in children's overweight with a 3-year follow-up. <i>Prev Med</i> 2004; 39(2):369-372.	Not controlled study
Kirk S, Zeller M, Claytor R, Santangelo M, Khoury PR, Daniels SR et al. The relationship of health outcomes to improvement in BMI in children and adolescents. <i>Obes Res</i> 2005; 13(5):876-882.	Not controlled study
Kolagotla L, Adams W, Kolagotla L, Adams W. Ambulatory management of childhood obesity. <i>Obes Res</i> 2004; 12(2):275-283.	Not controlled study
Lau PWC, Yu CW, Lee A, Sung RYT. The physiological and psychological effects of resistance training on Chinese obese adolescents. <i>Journal of Exercise</i>	Less than 6 months duration

Science and Fitness 2004; 2(2):115-120.	
Lazzer S, Boirie Y, Montaurier C, Vernet J, Meyer M, Vermorel M et al. A weight reduction program preserves fat-free mass but not metabolic rate in obese adolescents. <i>Obes Res</i> 2004; 12(2):233-240.	Not controlled study
Lazzer S, Boirie Y, Poissonnier C, Petit I, Duche P, Taillardat M et al. Longitudinal changes in activity patterns, physical capacities, energy expenditure, and body composition in severely obese adolescents during a multidisciplinary weight-reduction program. <i>International Journal of Obesity</i> 2005; 29(1):37-46.	Not controlled study
Lazzer S, Boirie Y, Bitar A, Petit I, Meyer M, Vermorel M. Relationship between percentage of VO ₂ max and type of physical activity in obese and non-obese adolescents. <i>J Sports Med Phys Fitness</i> 2005; 45(1):13-19. (40) Li S, Liu X, Okada T, Iwata F, Hara M, Harada K et al. Serum lipid profile in obese children in China. <i>Pediatr Int</i> 2004; 46(4):425-428	Less than 6 months duration
Luke A, Philpott J, Brett K, Cruz L, Lun V, Prasad N et al. Physical inactivity in children and adolescents. <i>Clin J Sport Med</i> 2004; 14(5):261-266.	Narrative review
Macey L, Sternberg A, and Muzumbar H. The Downstart Program: A Hospital-based weight-loss program. <i>Ethnicity and disease</i> 2005, volume 15, 58-59.	Less than 6 months
Maffeis C, Zaffanello M, Pellegrino M, Banzato C, Bogoni G, Viviani E et al. Nutrient oxidation during moderately intense exercise in obese prepubertal boys. <i>Journal of Clinical Endocrinology & Metabolism</i> 2005; 90(1):231-236.	Not controlled study
Malecka-Tendera E, Klimek K, Matusik P, Olszanecka-Glinianowicz M, Lehingue Y, the Polish Childhood Obesity Study Group. et al. Obesity and overweight prevalence in Polish 7- to 9-year-old children. <i>Obes Res</i> 2005; 13(6):964-968.	Not controlled study.
Marshall SJ, Biddle SJ, Gorely T, Cameron N, Murdey I, Marshall SJ et al. Relationships between media use, body fatness and physical activity in children	Not only overweight/ obese participants. No group stratification.

and youth: a meta-analysis. [Review] [76 refs]. <i>Int J Obes Relat Metab Disord</i> 2004; 28(10):1238-1246.	
McElroy SL, Kotwal R, Malhotra S, Nelson EB, Keck-Paul-E-Jr, Nemeroff CB. Are Mood Disorders and Obesity Related? A Review for the Mental Health Professional. <i>Journal of Clinical Psychiatry</i> , May 2004, vol 65 , no 5, p 634 651 , ISSN : 0160 6689 Publisher : Physicians Postgraduate Press, US, http://www.psychiatrist.com/2004	Did not undertake weight management programme.
McGarvey E, Keller A, Forrester M, Williams E, Seward D, Suttle DE. Feasibility and benefits of a parent-focused preschool child obesity intervention. <i>American Journal of Public Health</i> 2004; 94 (9): 1490- 1495.	Participants were not overweight.
Mohn A, Catino M, Capanna R, Giannini C, Marcovecchio M, Chiarelli F. Increased oxidative stress in prepubertal severely obese children: effect of a dietary restriction-weight loss program. <i>The Journal of Clinical Endocrinology and Metabolism</i> 2005; 90 (5): 2653-2658.	Control group does not report weight parameters at follow-up.
Nagai N, Moritani T, Nagai N, Moritani T. Effect of physical activity on autonomic nervous system function in lean and obese children. <i>Int J Obes Relat Metab Disord</i> 2004; 28(1):27-33.	Less than 6 months duration
Norman AC, Drinkard B, Mcduffie JR, Ghorbani S, Yanoff LB, Yanovski JA. Influence of excess adiposity on exercise fitness and performance in overweight children and adolescents. <i>Pediatrics</i> 2005; 115: 690-696.	Did not report changes in regard to weight parameters.
Ramos dM, V, Almeida RM, Pereira RA, Azevedo Barros MB, Ramos de Marins VM, Almeida RMVR et al. The relationship between parental nutritional status and overweight children/adolescents in Rio de Janeiro, Brazil. <i>Public Health</i> 2004; 118(1):43-49.	Not controlled study.
Reinehr T, Kiess W, Andler W. Insulin sensitivity indices of glucose and free fatty acid metabolism in obese children and adolescents in relation to serum	Participants did not undertake weight management programme.

lipids. <i>Metabolism: Clinical & Experimental</i> 2005; 54(3):397-402.	
Reybrouck T, Vinckx J, Gewillig M. Assessment of oxygen deficit during exercise in obese children and adolescents. <i>Pediatric Exercise Science</i> 2005; 17(3):291-300.	Less than 6 months duration
Rooney BL, Gritt LR, Havens SJ, Mathiason MA, Clough EA. Growing Healthy Families: family use of pedometers to increase physical activity and slow the rate of obesity. <i>Wisconsin Medical Journal</i> 2005; 104 (5): 54- 60.	Non-clinical setting.
Ribeiro MM, Silva AG, Santos NS, Guazzelle I, Matos LNJ, Trombetta IC et al. Diet and exercise training restore blood pressure and vasodilatory responses during physiological maneuvers in obese children. <i>Circulation</i> 1915; 111(15):15-1923.	Less than 6 months duration
Rudolf MCJ, Hochberg Z, Speiser P. Perspectives on the development of an international consensus on childhood obesity. <i>Archives of Disease in Childhood</i> 2005; 90(10):994-996.	Narrative review. References checked.
Sabia, RV, Santos JE and Ribeiro RPPR. Effect of physical associated with nutritional orientation for obese adolescents: comparison between aerobic and anaerobic exercise. <i>Revista Brasileira de Medicina do Esporte</i> 2004; 10 (5): 356 – 360.	Less than 6 months
Sung RYT, Yu CW, So RCH, Lam PKW, and Hau KT. Self-perception of physical competences in preadolescent overweight Chinese children. <i>European Journal of Clinical Nutrition</i> 2005; 59: 101-106.	Not controlled study.
Tennefors C, Forsum E, Tennefors C, Forsum E. Assessment of body fatness in young children using the skinfold technique and BMI vs body water dilution. <i>Eur J Clin Nutr</i> 2004; 58(3):541-547.	Less than 2 year olds.
Tudor-Locke C, Pangrazi RP, Corbin CB, Rutherford WJ, Vincent SD, Raustorp A et al. BMI-referenced standards for recommended pedometer-determined	Secondary analysis of cross sectional data.

steps/day in children. <i>Prev Med</i> 2004; 38(6):857-864.	
Vila G, Zipper E, Dabbas M, Bertrand C, Robert JJ, Ricour C et al. Mental disorders in obese children and adolescents. <i>Psychosom Med</i> 2004; 66(3):387-394.	Did not undertake weight management program.
White MA, Martin PD, Newton RL, Walden HM, York-Crowe EE, Gordon ST et al. Mediators of weight loss in a family-based intervention presented over the internet. <i>Obes Res</i> 2004; 12(7):1050-1059	Not clinical approach
Williamson DA, Davis MP, White MA, Newton R, Walden H, York CE et al. Efficacy of an internet-based behavioral weight loss program for overweight adolescent African-American girls. <i>Eating and Weight Disorders</i> 2005; vol. 10, no. 3, p. 193-203. ISSN: 1590-1262. Publisher: Editrice Kurtis, Italy, http://www.kurtis.it.:193-203 .	Not clinical approach
Yin TJ WFLYY. Effects of a weight-loss program for obese children: a "mix of attributes" approach. <i>The journal of nursing research: JNR</i> 2005; 13(1):21-30.	School-based study
Yoshinaga M, Sameshima K, Miyata K, Hashiguchi J, Imamura M, Yoshinaga M et al. Prevention of mildly overweight children from development of more overweight condition. <i>Prev Med</i> 2004; 38(2):172-174	Not clear length of study
Young KL. Treating overweight children and adolescents in the clinic. <i>Clinical Pediatrics</i> 2005; 44(8):647-653.	Narrative review