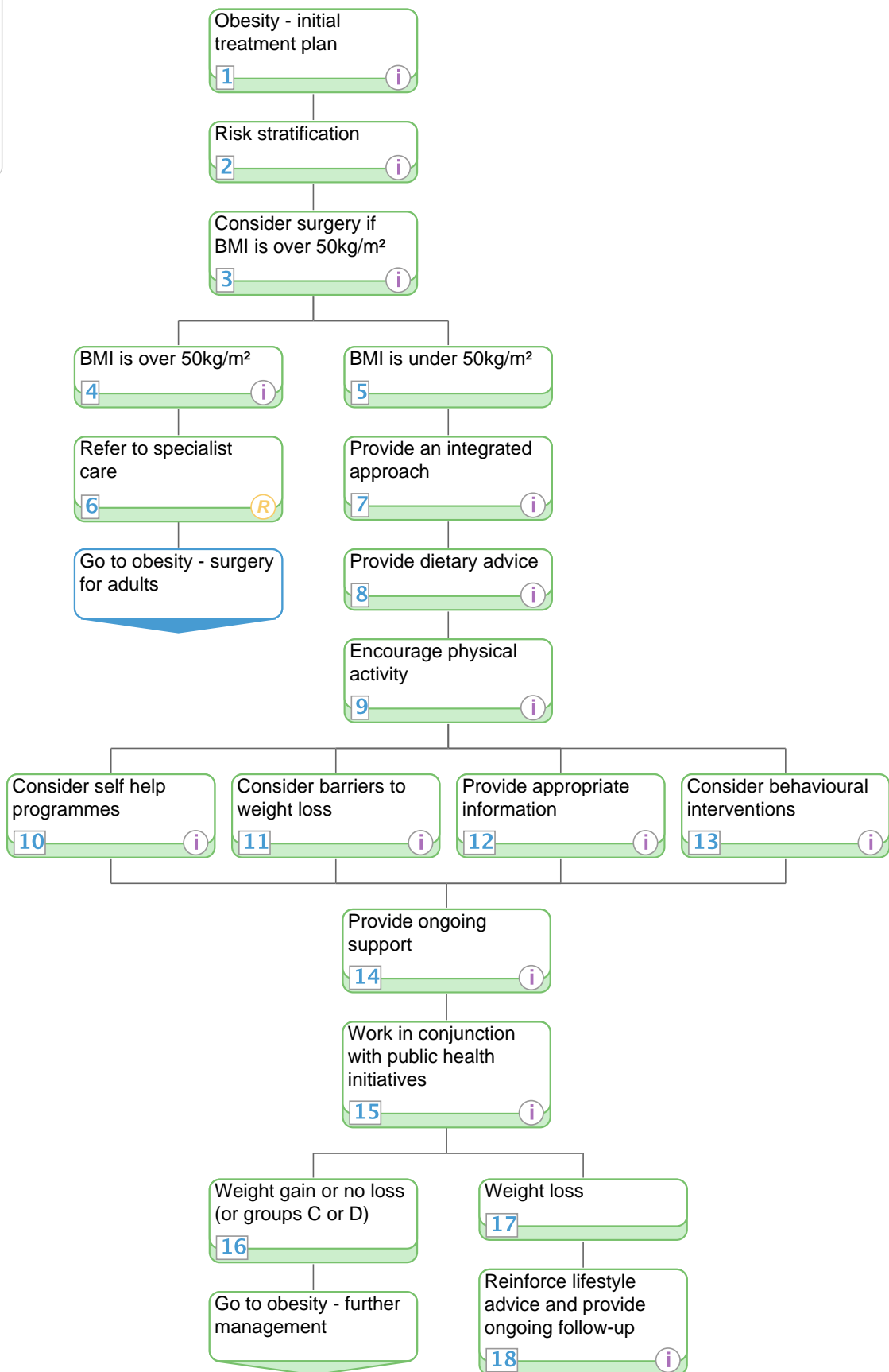


Obesity - initial treatment plan

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i Information
R Referral
L Local info
■ Note
■ Primary care
■ Secondary care



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Obesity - initial treatment plan

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1 Obesity - initial treatment plan

Quick info:

Scope:

- all aspects of the initial treatment plan for adults with obesity
- lifestyle advice is the most important component of initial treatment
- other considerations include:
 - identifying the individuals' barriers to weight loss
 - behavioural interventions
 - use of self help programmes
 - the provision of:
 - appropriate information
 - ongoing support
 - working in conjunction with public health initiatives
- those with an initial body mass index (BMI) over 50kg/m² may need specialist referral for the consideration of bariatric surgery
- see [BMI table](#)
- this page is relevant to those who are classified as being obese and those who are overweight

Covered on other pages of this pathway:

- anti-obesity drug therapy
- surgery

References:

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

2 Risk stratification

Quick info:

- risks from comorbidities (eg. heart disease, type 2 diabetes mellitus) are reduced with 5-10% weight loss
- use body mass index (BMI; see [BMI table](#) and [BMI calculator](#)) to assess obesity in adults
- interpret BMI with caution as it is not a direct measure of adiposity (particularly in highly muscular adults)
- in adults, obesity is defined as a BMI of:
 - 18.5-24.9kg/m² = healthy
 - 25-29.9kg/m² = overweight
 - 30-34.9kg/m² = obesity I
 - 35-39.9kg/m² = obesity II
 - 40 or more kg/m² = obesity III (morbidly obese)
- be aware that comorbidity risk factors are of concern at different BMIs for different population groups, eg. Asian adults may be at risk from cardiovascular events at a lower BMI than their white counterparts
- measure waist circumference (WC), in addition to BMI, in people with a BMI less than 35 kg/m²
- WC for men:
 - less than 94cm = low risk
 - 94-102cm = high risk
 - over 102cm = very high risk
- WC for women:
 - less than 80cm = low risk
 - 80-88cm = high risk
 - over 88cm = very high risk
- people can be classified into the following risk groups, with increasing risk suggesting the need for increasing intensity of intervention:
- Group A:
 - overweight body mass index (BMI) and a low waist circumference (WC)
- Group B:
 - overweight BMI + high WC
 - overweight BMI + very high WC
 - obesity I – BMI 30-34.9 kg/m² (with any WC measurement)
- Group C:
 - an overweight BMI + comorbidity

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- obesity I + comorbidity
- obesity II – BMI 35-39.9 kg/m² (with any WC measurement)
- Group D:
 - obesity II + comorbidity
 - obesity III – BMI 40 or more kg/m² (with any WC measurement)
 - obesity III + comorbidity
- measure WC, in addition to BMI, in people with a BMI less than 35 kg/m²
- National Institute for Health and Clinical Excellence (NICE) recommends targeting level of intervention as follows:
 - Group A – offer general advice on weight and lifestyle issues
 - Group B – offer specific advice on diet and physical activity
 - Group C – offer specific advice on diet and physical activity, and considering use of drugs
 - Group D – offering specific advice on diet and physical activity, and considering drugs or surgery as appropriate

References:

Mulrow CD, Chiquette E, Angel L et al. Dieting to reduce body weight for controlling hypertension in adults. Cochrane Database Syst Rev 2000; CD000484.

Aucott L, Poobalan A, Smith WC et al. Weight loss in obese diabetic and non-diabetic individuals and long-term diabetes outcomes – a systematic review. Diabetes Obes Metab 2004; 6: 85-94.

Anderson JW, Konz EC. Obesity and disease management: effects of weight loss on comorbid conditions. Obes Res 2001; 9 Suppl 4: 326S-34.

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

Brown TJ. Health benefits of weight reduction in postmenopausal women: A systematic review. J Br Menopause Soc 2006; 12: 164-71.

3 Consider surgery if BMI is over 50kg/m²

Quick info:

- in adults with a body mass index (BMI) of more than 50kg/m² who are fit for bariatric surgery, consider this as a first-line option, before lifestyle interventions or drug therapy
- otherwise, National Institute for Health and Clinical Excellence (NICE) guidance recommends bariatric surgery only if all of the following criteria are fulfilled:
 - at least 6 months attempt at all appropriate non-surgical approaches to weight loss
 - the person has either a:
 - BMI of 40kg/m² or more
 - BMI between 35-40kg/m² and significant comorbidities that are likely to improve with weight loss, eg. type 2 diabetes mellitus and high blood pressure (BP)
 - the person will receive intensive management from a specialist obesity service
 - the person is fit for anaesthesia and surgery
 - the person commits to long-term follow-up

Waiting times and specialist services may differ depending on location and availability.

4 BMI is over 50kg/m²

Quick info:

- consider bariatric surgery as a first-line option, before lifestyle interventions or drug treatment, in adults with a body mass index (BMI) of more than 50kg/m² who are fit for surgery
- apart from the above, National Institute for Health and Clinical Excellence (NICE) guidance recommends bariatric surgery only if all of the following criteria are fulfilled:
 - at least 6 months attempt at all appropriate non-surgical approaches
 - the person has either a:
 - BMI of 40kg/m² or more; or
 - BMI between 35 and 40kg/m² and significant comorbidity that is likely to improve with weight loss, eg. type 2 diabetes and high blood pressure
 - the person will receive intensive management from a specialist obesity service

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- the person is fit for anaesthesia and surgery
- the person commits to long term follow-up

Waiting times and specialist services may differ depending on location and availability.

References:

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

7 Provide an integrated approach

Quick info:

- interventions for obesity need to be multicomponent and include strategies to:
 - increase physical activity and decrease inactivity
 - improve eating behaviour
 - improve the quality of the person's diet
 - reduce energy intake
- take an integrated approach to weight loss including:
 - advice and support
 - counselling on diet, physical activity and behavioural strategies
- National Institute for Health and Clinical Excellence (NICE) recommends that drug treatment and surgery for obesity are only considered once lifestyle interventions have been tried for at least 3 months:
 - a person with a body mass index (BMI) over 50kg/m² is an exception to this

References:

CREST. Guidelines for the management of obesity in secondary care. Belfast: Clinical Resource Efficiency Support Team; 2005

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

PRODIGY. Obesity. Newcastle upon Tyne: PRODIGY; 2006

8 Provide dietary advice

Quick info:

- to prevent weight gain:
 - energy intake from food should not exceed energy expended each day
- to lose weight:
 - energy intake from food should be reduced
 - daily energy expenditure should be increased
- provide dietary advice:
 - obese people need to make long-term lifestyle change rather than follow short-term 'extreme' diets that cannot be maintained
 - provide information in terms of food rather than nutrients, eg. advise to reduce intake of fried food, rather than reduce fat
 - recommend regular meals
- advise people to:
 - eat breakfast
 - moderate the size of their meals and snacks
 - note how often they are eating in between meals and consider healthier alternatives, eg. piece of fruit
 - base their meals on starchy foods, eg. potatoes, bread, rice, pasta
 - eat plenty of fibre-rich foods, eg. oats, beans, peas, grains, seeds
 - eat at least five portions of fruit and vegetables each day
 - eat a low fat diet
- avoid:
 - fried food
 - take away and fast foods
 - foods high in sugar or saturated fats
 - drinks and confectionery high in added sugar
 - minimise alcohol intake
- be aware that:
 - return to normal body weight may be difficult
 - 10% weight loss can be an initial realistic goal
 - for some people, weight maintenance may be a more realistic goal
 - changing eating habits is challenging

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- start with two or three specific changes, eg.:
 - fruit instead of pudding
 - olive oil, corn oil or sunflower oil instead of butter
- as a guide, the Food Standards Agency suggest that daily intake should be roughly divided into:
 - one third fruit and vegetables
 - one third carbohydrates
 - one third consisting of:
 - milk and dairy
 - meat, fish and alternatives
 - fats and sugary food (smallest portion)

References:

CREST. Guidelines for the management of obesity in secondary care. Belfast: Clinical Resource Efficiency Support Team; 2005.

Thorogood M, Hillsdon M, Summerbell C. Cardiovascular disorders. Changing behaviour. Clin Evid 2004; 85-114.

Moore H, Summerbell C, Hooper L et al. Dietary advice for treatment of type 2 diabetes mellitus in adults. Cochrane Database Syst Rev 2004; CD004097.

Norris SL, Zhang X, Avenell A et al. Long-term non-pharmacological weight loss interventions for adults with prediabetes. Cochrane Database Syst Rev 2005; CD005270.

Avenell A, Brown TJ, McGee MA et al. What are the long-term benefits of weight reducing diets in adults? A systematic review of randomized controlled trials. J Hum Nutr Diet 2004; 17: 317-35.

Avenell A, Brown TJ, McGee MA et al. What interventions should we add to weight reducing diets in adults with obesity? A systematic review of randomized controlled trials of adding drug therapy, exercise, behaviour therapy or combinations of these interventions. J Hum Nutr Diet 2004; 17: 293-316.

Dubnov G, Brzezinski A, Berry EM. Weight control and the management of obesity after menopause: the role of physical activity. Maturitas 2003; 44: 89-101.

Poston WS, Haddock CK, Dill PL et al. Lifestyle treatments in randomized clinical trials of pharmacotherapies for obesity. Obes Res 2001; 9: 552-63.

Astrup A. The role of dietary fat in the prevention and treatment of obesity. Efficacy and safety of low-fat diets. Int J Obes Relat Metab Disord 2001; 25 Suppl 1: S46-50.

Ross R, Janssen I. Physical activity, total and regional obesity: dose-response considerations. Med Sci Sports Exerc 2001; 33: S521-27.

Astrup A, Ryan L, Grunwald GK et al. The role of dietary fat in body fatness: evidence from a preliminary meta-analysis of ad libitum low-fat dietary intervention studies. Br J Nutr 2000; 83 Suppl 1: S25-32.

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

Royal Pharmaceutical Society of Great Britain. Practice guidance: obesity. London: Royal Pharmaceutical Society of Great Britain; 2005.

PRODIGY. Obesity. Newcastle upon Tyne: PRODIGY; 2006.

Institute for Clinical Systems Improvement. Prevention and management of obesity (mature adolescents and adults). Bloomington, MN: Institute for Clinical Systems Improvement; 2006

National Heart LaBI, National Institute of Diabetes and Digestive and Kidney Diseases. Clinical guidelines on the identification, evaluation and treatment of overweight and obesity in adults. The evidence report. Bethesda, MD: National Heart, Lung and Blood Institute; 1998.

9 Encourage physical activity

Quick info:

Encourage people to increase their activity levels:

- advise building activity into normal daily life:
 - walking to work
 - walking to the station or bus stop
 - using stairs instead of the lift
 - walking at lunchtime
- advise taking up enjoyable activities such as cycling, swimming, aqua aerobics, gardening
- advise avoiding sedentary activities, such as sitting for a long time watching television
- explain that even if increased physical activity does not result in weight loss, it can reduce the risk of type 2 diabetes mellitus and cardiovascular disease (CVD)
- encourage people to do at least 30 minutes of moderate physical activity (eg. brisk walking) 5 days per week
- advise that to prevent obesity, 45-60 minutes of moderate-intensity activity a day is necessary

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- advise people that have been obese and lost weight, 60-90 minutes of physical activity per day is necessary to avoid regaining weight

References:

Rissanen A, Fogelholm M. Physical activity in the prevention and treatment of other morbid conditions and impairments associated with obesity: current evidence and research issues. *Med Sci Sports Exerc* 1999; 31: S635-45.

Wing RR. Physical activity in the treatment of the adulthood overweight and obesity: current evidence and research issues. *Med Sci Sports Exerc* 1999; 31: S547-52.

Fogelholm M. Walking for the management of obesity. *Dis Manage Health Outcomes* 2005; 13: 9-18.

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

Royal Pharmaceutical Society of Great Britain. Practice guidance: obesity. London: Royal Pharmaceutical Society of Great Britain; 2005.

National Heart LaBI, National Institute of Diabetes and Digestive and Kidney Diseases. Clinical guidelines on the identification, evaluation and treatment of overweight and obesity in adults. The evidence report. Bethesda, MD: National Heart, Lung and Blood Institute; 1998.

Shaw K, Gennat H, O'Rourke P et al. Exercise for overweight or obesity. *Cochrane Database Syst Rev* 2006; CD003817.

Miller WC, Kocaja DM, Hamilton EJ. A meta-analysis of the past 25 years of weight loss research using diet, exercise or diet plus exercise intervention. *Int J Obes Relat Metab Disord* 1997; 21: 941-47.

10 Consider self help programmes

Quick info:

Only recommend people to self help, commercial and community weight management programmes that:

- assess the person's weight and decide on a realistic target weight (5-10% loss of original weight is appropriate)
- advocate a maximum weekly weight loss of 0.5-1kg
- focus on long-term lifestyle changes not a short-term quick-fix
- offer a variety of different approaches to address both diet and activity
- use a balanced, healthy eating approach
- recommend regular physical exercise while offering safe advice about being more active
- include behaviour change techniques, such as keeping a diary and advice on how to cope with 'lapses' and 'high-risk' situations
- recommend ongoing support

References:

Ayyad C, Andersen T. Long-term efficacy of dietary treatment of obesity: a systematic review of studies published between 1931 and 1999. *Obes Rev* 2000; 1: 113-19.

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

11 Consider barriers to weight loss

Quick info:

- discuss the range of weight management options available and help the person to choose those that:
 - best suits their circumstances
 - they will be able to sustain in the long term
- explore and address factors that may influence the individual's ability to lose weight, such as:
 - lack of knowledge about:
 - healthy food
 - appropriate portion sizes
 - cooking
 - how diet and exercise affect health
 - cost and availability of healthy foods
 - opportunities for exercise
 - safety concerns, eg.:
 - shortness of breath on exercising
 - traffic on the road when cycling
 - lack of time
 - personal tastes
 - family and social influences

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- current poor fitness, eg. feeling short of breath after walking only a short distance
- low self esteem
- lack of assertiveness
- tailor advice for different groups, eg.:
 - people going through a life event that is associated with increased risk of weight gain, such as:
 - smoking cessation
 - pregnancy
 - menopause
 - people on low incomes
 - those who hold cultural beliefs that view obesity as more valuable or attractive than a healthy weight
- when an overweight or obese person is trying to give up smoking:
 - provide information on services that provide advice on the prevention and management of obesity
 - encourage increased physical activity
 - provide advice on long-term weight management
- if a person is reluctant to change their lifestyle at this time:
 - re-emphasise the health risks that are associated with obesity
 - explain that advice and support are available whenever they need it
 - provide contact details so that they are able to make contact when they are ready

References:

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

12 Provide appropriate information

Quick info:

- provide targeted information for each individual; this information should give consideration to the person's:
 - age
 - gender
 - cultural needs and sensitivities
 - ethnicity
 - social and economic family circumstances
 - physical and mental disabilities
- provide relevant information on:
 - obesity in general (including related health risks)
 - realistic targets for weight loss, usually:
 - maximum weekly weight loss of 0.5-1kg
 - target weight of 5-10% less than original weight
 - the importance of losing weight at a maintainable rate, eg. not too fast
 - the difference between losing weight and preventing weight gain (the change from losing weight to maintenance usually happens after 6-9 months)
 - increasing physical exercise and choosing healthier eating options
 - treatment options (if appropriate)
 - contact details for voluntary organisations and support groups

References:

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

13 Consider behavioural interventions

Quick info:

- deliver any behavioural intervention with the support of an appropriately trained professional
- consider the possibility of underlying psychological disorders before any behavioural therapy programmes start:
 - such individuals may not be appropriate for behavioural therapy and require alternative psychological intervention
- consider behavioural interventions appropriate for the individual, such as:
 - setting goals
 - self monitoring of behaviour and progress
 - identifying environmental cues, eg. stimulus control
 - eating slowly
 - finding social support, eg. support groups

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- identifying problems and looking for solutions to them
- assertiveness
- modifying thoughts, eg. cognitive restructuring
- reinforcing changes
- considering how to prevent relapse
- strategies for dealing with weight regain
- as with all interventions suggested on this pathway, behavioural interventions are more effective when combined with dietary and exercise strategies

References:

Thorogood M, Hillsdon M, Summerbell C. Cardiovascular disorders. Changing behaviour. Clin Evid 2004; 85-114.

Shaw K, O'Rourke P, Del Mar C et al. Psychological interventions for overweight or obesity. Cochrane Database Syst Rev 2005; CD003818.

Greenberg I, Perna F, Kaplan M et al. Behavioral and psychological factors in the assessment and treatment of obesity surgery patients. Obes Res 2005; 13: 244-49.

Avenell A, Brown TJ, McGee MA et al. What interventions should we add to weight reducing diets in adults with obesity? A systematic review of randomized controlled trials of adding drug therapy, exercise, behaviour therapy or combinations of these interventions. J Hum Nutr Diet 2004; 17: 293-316.

Ayyad C, Andersen T. Long-term efficacy of dietary treatment of obesity: a systematic review of studies published between 1931 and 1999. Obes Rev 2000; 1: 113-19.

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

National Obesity Forum. Guidelines on the management of adult obesity and overweight in primary care. London: National Obesity Forum; 2006.

National Heart LaBI, National Institute of Diabetes and Digestive and Kidney Diseases. Clinical guidelines on the identification, evaluation and treatment of overweight and obesity in adults. The evidence report. Bethesda, MD: National Heart, Lung and Blood Institute; 1998.

Lang A, Froelicher ES. Management of overweight and obesity in adults: behavioral intervention for long-term weight loss and maintenance. Eur J Cardiovasc Nurs 2006; 5: 102-14.

Institute for Clinical Systems Improvement. Behavioral therapy programs for weight loss in adults. Bloomington, MN: Institute for Clinical Systems Improvement; 2005.

14 Provide ongoing support

Quick info:

- provide ongoing support in person or by phone, mail or internet
- arrange targeted follow-up for interventions as part of a long-term plan
- provide continuity of care through a multidisciplinary team
- maintain good record keeping
- ensure that the professionals providing long-term follow-up are appropriately trained

References:

Ayyad C, Andersen T. Long-term efficacy of dietary treatment of obesity: a systematic review of studies published between 1931 and 1999. Obes Rev 2000; 1: 113-19.

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

15 Work in conjunction with public health initiatives

Quick info:

National Institute for Health and Clinical Excellence (NICE) guidance recommends that:

- primary care should not work alone to treat and manage obesity
- health service providers need to work in conjunction with public health initiatives
- public health recommendations apply to:
 - the public
 - the NHS
 - local authorities and partners in the community
 - workplaces
 - self help, commercial and community programmes

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- examples of initiatives include (but are not limited to):
 - creation and management of more safe spaces for incidental and planned physical activity – addressing as a priority any concerns about safety, crime and inclusion
 - primary care staff consultation with target communities to determine how best to deliver interventions
 - health professionals working with supermarkets, restaurants, cafes and voluntary community services to promote healthy eating choices that are consistent with existing good practice guidance
 - workplaces to provide opportunities for staff to eat a healthy diet and be physically active during the working day

References:

National Institute for Health and Clinical Excellence (NICE). Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: NICE; 2006.

Pieracci FM, Barie PS, Pomp A. Critical care of the bariatric patient. Crit Care Med 2006; 34: 1796-804.

18 Reinforce lifestyle advice and provide ongoing follow-up

Quick info:

- to prevent weight gain:
 - energy intake from food should not exceed energy expended each day
- to lose weight:
 - energy intake from food should be reduced
 - daily energy expenditure should be increased
- provide dietary advice:
 - obese people need to make long-term lifestyle change rather than follow short-term 'extreme' diets that cannot be maintained
 - provide information in terms of food rather than nutrients, eg. advise to reduce intake of fried food, rather than reduce fat
 - recommend regular meals
- advise people to:
 - eat breakfast
 - moderate the size of their meals and snacks
 - note how often they are eating in between meals and consider healthier alternatives, eg. piece of fruit
 - base their meals on starchy foods, eg. potatoes, bread, rice, pasta
 - eat plenty of fibre-rich foods, eg. oats, beans, peas, grains, seeds
 - eat at least five portions of fruit and vegetables each day
 - eat a low fat diet
- avoid:
 - fried food
 - take away and fast foods
 - foods high in sugar or saturated fats
 - drinks and confectionery high in added sugar
 - minimise alcohol intake
- be aware that:
 - a return to normal body weight may be difficult
 - a 10% weight loss can be an initial realistic goal
 - for some people, weight maintenance may be a more realistic goal
 - changing eating habits is challenging
- start with two or three specific changes eg.:
 - fruit instead of pudding
 - olive oil, corn oil or sunflower oil instead of butter
- as a guide, the Food Standards Agency suggest that daily intake should be roughly divided into:
 - one third fruit and vegetables
 - one third carbohydrates
 - one third consisting of:
 - milk and dairy
 - meat, fish and alternatives
 - fats and sugary food (smallest portion)

Encourage people to increase their activity levels:

- advise building activity into normal daily life:
 - walking to work
 - walking to the station or bus stop
 - using stairs instead of the lift
 - walking at lunchtime

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- advise taking up enjoyable activities such as cycling, swimming, aqua aerobics, gardening
- advise avoiding sedentary activities, such as sitting for a long time watching television
- explain that even if increased physical activity does not result in weight loss, it can reduce the risk of type 2 diabetes mellitus and cardiovascular disease (CVD)
- encourage people to do at least 30 minutes of moderate physical activity (eg. brisk walking) 5 days per week
- advise that to prevent obesity, 45-60 minutes of moderate-intensity activity a day is necessary
- advise people that have been obese and lost weight, 60-90 minutes of physical activity per day is necessary to avoid regaining weight
- provide ongoing follow-up including:
 - ongoing support in person or by phone, mail or internet
 - targeted follow-up of interventions as part of a long-term plan
 - continuity of care through a multidisciplinary team
 - maintaining good record keeping
 - appropriate training of health professionals involved in long-term care

References:

Ayyad C, Andersen T. Long-term efficacy of dietary treatment of obesity: a systematic review of studies published between 1931 and 1999. *Obes Rev* 2000; 1: 100-19.

NICE. Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: National Institute for Health and Clinical Excellence; 2006.

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Key Dates

Due for review: 28-Feb-2009

Last reviewed: 31-Jul-2008, by International

Updated: 31-Oct-2008

Accreditations

The editorial process used to create this pathway is accredited by:

NHS Institute for Innovation and Improvement:

Accreditation attained: 31-Jul-2007

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Certifications

The evidence for this pathway is certified by:

BMJ Publishing Group Ltd:

Certification attained: 31-Oct-2008

Due for review: 31-Oct-2009

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Evidence summary for Obesity - initial treatment plan

The pathway is based on our interpretation of the following guidelines (1, 2, 55, 58, 60, 62). All of these guidelines have been assessed for quality and prioritised for inclusion based on their methodological quality. All intervention nodes (i.e. those concerning therapy and therapeutic advice) have been graded for the quality of the evidence underlying them. Supporting resources for key non-interventional nodes have also been listed, but non-interventional nodes have not been graded. This pathway has undergone external peer review.

This pathway was updated based on NICE guideline 90 in August 2008.

Search date: Mar-2007

Evidence grades:

- 1** Intervention node supported by level 1 guidelines or systematic reviews
- 2** Intervention node supported by level 2 guidelines
- E** Intervention node based on expert clinical opinion
- U** Non-intervention node, not graded

Evidence grading:

Graded node titles that appear on this page

Graded node titles that appear on this page	Evidence grade	Reference IDs
Provide an integrated approach	1	1, 55, 58
Encourage physical activity	1	46, 47, 48, 52, 55, 57, 58, 60, 62, 64
Consider self help programmes	1	44, 55
Consider barriers to weight loss	1	55
Provide appropriate information	1	55
Provide ongoing support	1	44, 55
Work in conjunction with public health initiatives	1	55, 69
Reinforce lifestyle advice and provide ongoing follow-up	1	44, 55
BMI is over 50kg/m#	1	55

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Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

Graded node titles that appear on this page

Obesity - initial treatment plan

Consider behavioural interventions

Risk stratification

Provide dietary advice

Evidence grade

U

1

U

U

Reference IDs

55

4, 10, 13, 22, 44, 55, 56, 62, 68

7, 27, 38, 55, 70

1, 4, 6, 8, 21, 22, 35, 39, 40, 45, 55, 57, 58, 60, 62

References

This is a list of all the references that have passed critical appraisal for use in the pathway Obesity in adults

ID Reference

- 1 CREST. Guidelines for the management of obesity in secondary care. Belfast: Clinical Resource Efficiency Support Team; 2005.
<http://www.crestni.org.uk/obesity-guidelines-report.pdf>
- 2 Snow V, Barry P, Fitternam N et al. Pharmacologic and surgical management of obesity in primary care: a clinical practice guideline from the American College of Physicians. *Ann Intern Med* 2005; 142: 525-531.
<http://www.annals.org/cgi/reprint/142/7/525.pdf>
- 3 Arterburn D, DeLaet D, Schauer DP. Obesity. *Clin Evid* 2006; 15: 861-874.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=16135277&query_hl=7&itool=pubmed_docsum
- 4 Thorogood M, Hillsdon M, Summerbell C. Cardiovascular disorders. Changing behaviour. *Clin Evid* 2004; 85-114.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=15865632&query_hl=7&itool=pubmed_docsum
- 5 Colquitt J, Clegg A, Sidhu M et al. Surgery for morbid obesity. *Cochrane Database Syst Rev* 2003; CD003641.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=12804481&query_hl=7&itool=pubmed_docsum
- 6 Moore H, Summerbell C, Hooper L et al. Dietary advice for treatment of type 2 diabetes mellitus in adults. *Cochrane Database Syst Rev* 2004; CD004097.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=15266517&query_hl=7&itool=pubmed_docsum
- 7 Mulrow CD, Chiquette E, Angel L et al. Dieting to reduce body weight for controlling hypertension in adults. *Cochrane Database Syst Rev* 2000; CD000484.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=10796721&query_hl=7&itool=pubmed_docsum
- 8 Norris SL, Zhang X, Avenell A et al. Long-term non-pharmacological weight loss interventions for adults with prediabetes. *Cochrane Database Syst Rev* 2005; CD005270.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=15846748&query_hl=7&itool=pubmed_docsum
- 9 Padwal R, Li SK, Lau DC. Long-term pharmacotherapy for obesity and overweight. *Cochrane Database Syst Rev* 2004; CD004094.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=15266516&query_hl=7&itool=pubmed_docsum
- 10 Shaw K, O'Rourke P, Del Mar C et al. Psychological interventions for overweight or obesity. *Cochrane Database Syst Rev* 2005; CD003818.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=15846683&query_hl=7&itool=pubmed_docsum
- 11 Pittler MH, Schmidt K, Ernst E. Adverse events of herbal food supplements for body weight reduction: systematic review. *Obes Rev* 2005; 6: 93-111.
- 12 Sabin J, Fanelli R, Flaherty H et al. Best practice guidelines on informed consent for weight loss surgery patients. *Obes Res* 2005; 13: 250-253.
- 13 Greenberg I, Perna F, Kaplan M et al. Behavioral and psychological factors in the assessment and treatment of obesity surgery patients. *Obes Res* 2005; 13: 244-249.
<http://www.nature.com/oby/index.html>
- 14 Saltzman E, Anderson W, Apovian CM et al. Criteria for patient selection and multidisciplinary evaluation and treatment of the weight loss surgery patient. *Obes Res* 2005; 13: 234-243.
- 15 Kelly J, Tarnoff M, Shikora S et al. Best practice recommendations for surgical care in weight loss surgery. *Obes Res* 2005; 13: 227-233.

Last reviewed: 31-Jul-2008 Due for review: 28-Feb-2009 Printed on: 28-Dec-2008 © Map of Medicine Ltd

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Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

ID Reference

- 16 Buchwald H, Avidor Y, Braunwald E et al. Bariatric surgery: a systematic review and meta-analysis. *JAMA* 2004; 292: 1724-1737.
<http://jama.ama-assn.org/cgi/content/full/292/14/1724>
- 17 Manterola C, Pineda V, Vial M et al. Surgery for morbid obesity: selection of operation based on evidence from literature review. *Obes Surg* 2005; 15: 106-113.
- 18 Hutton B, Fergusson D. Changes in body weight and serum lipid profile in obese patients treated with orlistat in addition to a hypocaloric diet: a systematic review of randomized clinical trials. *Am J Clin Nutr* 2004; 80: 1461-1468.
<http://www.ajcn.org/cgi/content/full/80/6/1461>
- 19 Orzano AJ, Scott JG. Diagnosis and treatment of obesity in adults: an applied evidence-based review. *J Am Board Fam Pract* 2004; 17: 359-369.
- 20 Grant P, Newcombe M. Emergency management of the morbidly obese. *Emerg Med Australas* 2004; 16: 309-317.
<http://www.blackwell-synergy.com/doi/abs/10.1111/j.1742-6723.2004.00614.x?journalCode=emm>
- 21 Avenell A, Brown TJ, McGee MA et al. What are the long-term benefits of weight reducing diets in adults? A systematic review of randomized controlled trials. *J Hum Nutr Diet* 2004; 17: 317-335.
http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&list_uids=15250842&dopt=AbstractPlus
- 22 Avenell A, Brown TJ, McGee MA et al. What interventions should we add to weight reducing diets in adults with obesity? A systematic review of randomized controlled trials of adding drug therapy, exercise, behaviour therapy or combinations of these interventions. *J Hum Nutr Diet* 2004; 17: 293-316.
http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&dopt=AbstractPlus&list_uids=15250841
- 23 Arterburn DE, Crane PK, Veenstra DL. The efficacy and safety of sibutramine for weight loss: a systematic review. *Arch Intern Med* 2004; 164: 994-1003.
<http://archinte.ama-assn.org/cgi/reprint/164/9/994.pdf>
- 24 Pittler MH, Ernst E. Dietary supplements for body-weight reduction: a systematic review. *Am J Clin Nutr* 2004; 79: 529-536.
- 25 Chapman AE, Kiroff G, Game P et al. Laparoscopic adjustable gastric banding in the treatment of obesity: a systematic literature review. *Surgery* 2004; 135: 326-351.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&list_uids=14976485&cmd=Retrieve&indexed=google
- 26 O'Meara S, Riemsma R, Shirran L et al. A systematic review of the clinical effectiveness of orlistat used for the management of obesity. *Obes Rev* 2004; 5: 51-68.
- 27 Aucott L, Poobalan A, Smith WC et al. Weight loss in obese diabetic and non-diabetic individuals and long-term diabetes outcomes--a systematic review. *Diabetes Obes Metab* 2004; 6: 85-94.
<http://www.blackwell-synergy.com/doi/full/10.1111/j.1462-8902.2004.00315.x>
- 28 McTigue KM, Harris R, Hemphill B et al. Screening and interventions for obesity in adults: summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med* 2003; 139: 933-949.
- 29 Nisoli E, Carruba MO. A benefit-risk assessment of sibutramine in the management of obesity. *Drug Saf* 2003; 26: 1027-1048.
- 30 O'Brien PE, Dixon JB. Lap-band: outcomes and results. *J Laparoendosc Adv Surg Tech A* 2003; 13: 265-270.
- 31 Clegg A, Colquitt J, Sidhu M et al. Clinical and cost effectiveness of surgery for morbid obesity: a systematic review and economic evaluation. *Int J Obes Relat Metab Disord* 2003; 27: 1167-1177.
<http://eprints.soton.ac.uk/45425/>
- 32 Kim SH, Lee YM, Jee SH et al. Effect of sibutramine on weight loss and blood pressure: a meta-analysis of controlled trials. *Obes Res* 2003; 11: 1116-1123.
- 33 Werneke U, Taylor D, Sanders TA et al. Behavioural management of antipsychotic-induced weight gain: a review. *Acta Psychiatr Scand* 2003; 108: 252-259.
- 34 Leung WY, Neil Thomas G, Chan JC et al. Weight management and current options in pharmacotherapy: orlistat and sibutramine. *Clin Ther* 2003; 25: 58-80.
- 35 Dubnov G, Brzezinski A, Berry EM. Weight control and the management of obesity after menopause: the role of physical activity. *Maturitas* 2003; 44: 89-101.
<http://cat.inist.fr/?aModele=afficheN&cpsid=14531276>
- 36 Sharma AM, Golay A. Effect of orlistat-induced weight loss on blood pressure and heart rate in obese patients with hypertension. *J Hypertens* 2002; 20: 1873-1878.
- 37 Gentileschi P, Kini S, Catarci M et al. Evidence-based medicine: open and laparoscopic bariatric surgery. *Surg Endosc* 2002; 16: 736-744.
<http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&uid=11997813&cmd=showdetailview&indexed=google>

Last reviewed: 31-Jul-2008 Due for review: 28-Feb-2009 Printed on: 28-Dec-2008 © Map of Medicine Ltd

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Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

ID Reference

- 38 Anderson JW, Konz EC. Obesity and disease management: effects of weight loss on comorbid conditions. *Obes Res* 2001; 9 Suppl 4: 326S-334S.
<http://www.nature.com/oby/index.html>
- 39 Poston WS, Haddock CK, Dill PL et al. Lifestyle treatments in randomized clinical trials of pharmacotherapies for obesity. *Obes Res* 2001; 9: 552-563.
- 40 Astrup A. The role of dietary fat in the prevention and treatment of obesity. Efficacy and safety of low-fat diets. *Int J Obes Relat Metab Disord* 2001; 25 Suppl 1: S46-S50.
<http://www.nature.com/ijo/journal/v25/n1/s/pdf/0801698a.pdf>
- 41 Ross R, Janssen I. Physical activity, total and regional obesity: dose-response considerations. *Med Sci Sports Exerc* 2001; 33: S521-S527.
- 42 O'Meara S, Riemsma R, Shirran L et al. A rapid and systematic review of the clinical effectiveness and cost-effectiveness of orlistat in the management of obesity. *Health Technol Assess* 2001; 5: 1-81.
- 43 Lucas KH, Kaplan-Machlis B. Orlistat--a novel weight loss therapy. *Ann Pharmacother* 2001; 35: 314-328.
- 44 Ayyad C, Andersen T. Long-term efficacy of dietary treatment of obesity: a systematic review of studies published between 1931 and 1999. *Obes Rev* 2000; 1: 113-119.
<http://www.ingentaconnect.com/content/bsc/obr/2000/00000001/00000002/art00006jsessionid=1kt4pj2msk4gt.alice?format=print&token=00511b24ae524cc11474e26634a492f2530332976335a666f3a7b2f2d407b765e206321587846d03f>
- 45 Astrup A, Ryan L, Grunwald GK et al. The role of dietary fat in body fatness: evidence from a preliminary meta-analysis of ad libitum low-fat dietary intervention studies. *Br J Nutr* 2000; 83 Suppl 1: S25-S32.
<http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&uid=10889789&cmd=showdetailview&indexed=google>
- 46 Rissanen A, Fogelholm M. Physical activity in the prevention and treatment of other morbid conditions and impairments associated with obesity: current evidence and research issues. *Med Sci Sports Exerc* 1999; 31: S635-S645.
- 47 Wing RR. Physical activity in the treatment of the adulthood overweight and obesity: current evidence and research issues. *Med Sci Sports Exerc* 1999; 31: S547-S552.
- 48 Miller WC, Koceja DM, Hamilton EJ. A meta-analysis of the past 25 years of weight loss research using diet, exercise or diet plus exercise intervention. *Int J Obes Relat Metab Disord* 1997; 21: 941-947.
- 49 Pittler MH, Ernst E. Complementary therapies for reducing body weight: A systematic review. *Int J Obes* 2005; 29: 1030-1038.
- 50 Karmali S, Shaffer E. The battle against the obesity epidemic: Is bariatric surgery the perfect weapon?. *Clin Invest Med* 2005; 28: 147-156.
- 51 Maggard MA, Shugarman LR, Suttorp M et al. Meta-analysis: Surgical treatment of obesity. *Ann Intern Med* 2005; 142: 547-559.
- 52 Fogelholm M. Walking for the management of obesity. *Dis Manage Health Outcomes* 2005; 13: 9-18.
<http://www.ingentaconnect.com/content/adis/dmho/2005/00000013/00000001/art00002>
- 53 Allison DB, Casey DE. Antipsychotic-induced weight gain: A review of the literature. *J Clin Psychiatry* 2001; 62: 22-31.
http://www.ncbi.nlm.nih.gov/sites/entrez?cmd=Retrieve&db=PubMed&list_uids=11346192&dopt=AbstractPlus
- 54 Taylor DM, McAskill R. Atypical antipsychotics and weight gain - A systematic review. *Acta Psychiatr Scand* 2000; 101: 416-432.
- 55 NICE. Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE clinical guideline 43. London: National Institute for Health and Clinical Excellence; 2006.
<http://www.nice.org.uk/CG043>
- 56 National Obesity Forum. Guidelines on the management of adult obesity and overweight in primary care. London: National Obesity Forum; 2006.
http://nationalobesityforum.org.uk/pre-dns-change.com/images/stories/W_M_guidelines/NOF_Adult_Guidelines_Feb_06.pdf
- 57 Royal Pharmaceutical Society of Great Britain. Practice guidance: obesity. London: Royal Pharmaceutical Society of Great Britain; 2005.
<http://www.rpsgb.org.uk/pdfs/obesityguid.pdf>
- 58 PRODIGY. Obesity. Newcastle upon Tyne: PRODIGY; 2006.
http://www.prodigy.nhs.uk/obesity/view_whole_guidance
- 59 Brigham and Women's Hospital. Obesity in women. A guide to assessment and management. Boston, MA: Brigham and Women's Hospital; 2007.
- 60 Institute for Clinical Systems Improvement. Prevention and management of obesity (mature adolescents and adults). Bloomington, MN: Institute for Clinical Systems Improvement; 2006.

Last reviewed: 31-Jul-2008 Due for review: 28-Feb-2009 Printed on: 28-Dec-2008 © Map of Medicine Ltd

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Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

ID Reference

- http://www.icsi.org/obesity/prevention_and_management_of_obesity_mature_adolescents_and_adults_2.html
- 61 Society of American Gastrointestinal Endoscopic Surgeons. Guidelines for the clinical application of laparoscopic bariatric surgery. Los Angeles, CA: Society of American Gastrointestinal Endoscopic Surgeons; 2003.
- 62 National Heart Lung and Blood Institute, National Institute of Diabetes and Digestive and Kidney Diseases. Clinical guidelines on the identification, evaluation and treatment of overweight and obesity in adults. The evidence report. Bethesda, MD: National Heart, Lung and Blood Institute; 1998.
http://www.nhlbi.nih.gov/guidelines/obesity/prctgd_c.pdf
- 63 Taylor CJ, Layani L. Laparoscopic adjustable gastric banding in patients > or =60 years old: is it worthwhile?. *Obes Surg* 2006; 16: 1579-1583.
- 64 Shaw K, Gennat H, O'Rourke P et al. Exercise for overweight or obesity. *Cochrane Database Syst Rev* 2006; CD003817.
- 65 Pannala R, Kidd M, Modlin IM. Surgery for obesity: panacea or Pandora's box?. *Dig Surg* 2006; 23: 1-11.
- 66 Pieracci FM, Barie PS, Pomp A. Critical care of the bariatric patient. *Crit Care Med* 2006; 34: 1796-1804.
- 67 Lang A, Froelicher ES. Management of overweight and obesity in adults: behavioral intervention for long-term weight loss and maintenance. *EUR J CARDIOVASC NURS* 2006; 5: 102-114.
- 68 Abell TL, Minocha A. Gastrointestinal complications of bariatric surgery: diagnosis and therapy. *Am J Med Sci* 2006; 331: 214-218.
<http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&uid=16617237&cmd=showdetailview&indexed=google>
- 69 Katz DL, O'Connell M, Yeh MC et al. Public health strategies for preventing and controlling overweight and obesity in school and worksite settings: a report on recommendations of the Task Force on Community Preventive Services. *MMWR Recomm Rep* 2005; 54: 1-12.
<http://www.cdc.gov/MMWR/preview/mmwrhtml/rr5410a1.htm>
- 70 Brown TJ. Health benefits of weight reduction in postmenopausal women: A systematic review. *J Br Menopause Soc* 2006; 12: 164-171.
http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&list_uids=17178018&cmd=Retrieve&indexed=google
- 71 Fernandes M, Atallah AN, Soares BGO et al. Intra-gastric balloon for obesity. *Cochrane Database Syst Rev* 2007; 1: CD004931.
<http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD004931/frame.html>
- 72 Australian Safety and Efficacy Register of New Interventional Procedures - Surgical. A systematic review of laparoscopic adjustable gastric banding in the treatment of obesity. Melbourne, VIC: Royal Australasian College of Surgeons (ASERNIP-S); 2000.
<http://www.surgeons.org/asernip-s/>
- 73 Schneider WL. Laparoscopic adjustable gastric banding for clinically severe (morbid) obesity. Edmonton, AL: Institute of Health Economics (IHE); 2000.
- 74 Guo B, Harstall C. Laparoscopic adjustable gastric banding for the treatment of clinically severe (morbid) obesity in adults: an update. Edmonton, AL: Institute of Health Economics (IHE); 2005.
<http://www.inahta.org/Publications/Briefs-Checklist-Impact/20052/Laparoscopic-Adjustable-Gastric-Banding-for-the-Treatment-of-Clinically-Severe-Morbid-Obesity-in-Adults-An-Update/>
- 75 Smartt P. Evidence based review of weight loss medicines: a report commissioned by the New Zealand Accident Compensation Corporation (ACC). Christchurch: New Zealand Accident Compensation Corporation; 2004.
<http://nzhta.chmeds.ac.nz/publications/weightloss.pdf>
- 76 Blue Cross Blue Shield Association. Newer techniques in bariatric surgery for morbid obesity: laparoscopic adjustable gastric banding, biliopancreatic diversion, and long-limb gastric bypass. Chicago, IL: Blue Cross Blue Shield Association; 2005.
http://www.bcbs.com/betterknowledge/tec/vols/20/20_05.html
- 77 Hassen-Khodja R, Lance J-MR. Surgical treatment of morbid obesity: an update. Montreal, QC: Agence d'valuation des technologies et des modes d'intervention en sant# (AETMIS); 2005.
<http://www.aetmis.gouv.qc.ca/>
- 78 Allison C. Intra-gastric balloons: a temporary treatment for obesity. *Issues Emerg Health Technol* 2006; 79: 1-4.
- 79 Blue Cross Blue Shield Association. Laparoscopic gastric bypass surgery for morbid obesity. Chicago, IL: Blue Cross Blue Shield Association; 2006.
- 80 NHS Quality Improvement Scotland. The use of sibutramine (Reductil) to treat obesity in adults. Edinburgh: NHS Quality Improvement Scotland; 2001.
<http://www.nhshealthquality.org/>

Last reviewed: 31-Jul-2008 Due for review: 28-Feb-2009 Printed on: 28-Dec-2008 © Map of Medicine Ltd

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Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

ID Reference

- 81 Chapman A, Game P, O'Brien P et al. A systematic review of laparoscopic adjustable gastric banding for the treatment of obesity (update and re-appraisal). Melbourne, VIC: Royal Australasian College of Surgeons (ASERNIP-S); 2002.
http://www.surgeons.org/asernip-s/publications_obesity.htm
- 82 Institute for Clinical Systems Improvement. Pharmacological approaches to weight loss in adults. Bloomington, MN: Institute for Clinical Systems Improvement; 2003.
- 83 Blue Cross Blue Shield Association. Special report: the relationship between weight loss and changes in morbidity following bariatric surgery for morbid obesity. Chicago, IL: Blue Cross Blue Shield Association; 2003.
- 84 Blue Cross Blue Shield Association. Newer techniques in bariatric surgery for morbid obesity. Chicago, IL: Blue Cross Blue Shield Association; 2003.
- 85 Medical Services Advisory Committee. Laparoscopic adjustable gastric banding for morbid obesity. Canberra, NSW: Medical Services Advisory Committee; 2003.
- 86 Chen J, McGregor M. The gastric banding procedure: an evaluation. Montreal, QC: McGill University Health Centre; 2004.
<http://www.mcgill.ca/tau/publications/>
- 87 Shekelle PG, Morton SC, Maglione MA et al. Pharmacological and surgical treatment of obesity. Rockville, MD: Agency for Healthcare Research and Quality; 2004.
<http://www.ahrq.gov/clinic/tp/obesphtp.htm>
- 88 Institute for Clinical Systems Improvement. Behavioral therapy programs for weight loss in adults. Bloomington, MN: Institute for Clinical Systems Improvement; 2005.
http://www.icsi.org/guidelines_and_more/technology_assessment_reports/technology_assessment_reports_-_active/behavioral_therapy_programs_for_weight_loss_in_adults.html
- 89 Institute for Clinical Systems Improvement. Gastric restrictive surgery for clinically severe obesity in adults. Bloomington, MN: Institute for Clinical Systems Improvement; 2005.
http://www.icsi.org/guidelines_and_more/technology_assessment_reports/technology_assessment_reports_-_active/gastric_restrictive_surgery_for_clinically_severe_obesity_in_adults.html
- 90 National Institute for Health and Clinical Excellence (NICE). Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children. Clinical guideline 43. London: NICE; 2008.
<http://www.nice.org.uk/guidance/index.jsp?action=byID&o=11000>
- 91 Medicine and Healthcare products Regulatory Agency (MHRA). New advice concerning the use of Acomplia (rimonabant) for weight loss in patients taking antidepressants or those with major depression. MHRA; 2007.
<http://www.mhra.gov.uk/Safetyinformation/Safetywarningsalertsandrecalls/Safetywarningsandmessagesformedicines/CON2031809>

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