Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

R

Provide an integrated approach

Encourage physical activity

Consider self help programmes

Consider barriers to weight loss

Provide appropriate information

Consider behavioural interventions

Provide ongoing support

Work in conjunction with public health initiatives

Weight gain or no loss (or groups C or D)

Go to obesity - further management

Weight loss

Reinforce lifestyle advice and provide ongoing follow-up

IMPORTANT NOTE
Last reviewed refers to the date of completion of the most recent review process for a pathway. All pathways are reviewed regularly every twelve months, and on an ad hoc basis if required. Due for review refers to the date after which the pathway on this page is no longer valid for use. Pathways should be reviewed before the due for review date is reached.
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:


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
Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

- 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:

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
Obesity - initial treatment plan

Medicine > General medicine > Obesity in adults

• 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:

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/m^2 is an exception to this

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

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

References:

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:

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
• 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:

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:

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
• 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:
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.

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:

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
Obesity - initial treatment plan

• 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:

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
• 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:
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
3. Intervention node based on expert clinical opinion
4. Non-intervention node, not graded

Evidence grading:

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/m² | 1 | 55


IMPORTANT NOTE
Last reviewed refers to the date of completion of the most recent review process for a pathway. All pathways are reviewed regularly every twelve months, and on an ad hoc basis if required. Due for review refers to the date after which the pathway on this page is no longer valid for use. Pathways should be reviewed before the due for review date is reached.
Graded node titles that appear on this page

Obesity - initial treatment plan
Consider behavioural interventions
Risk stratification
Provide dietary advice

Evidence grade

Reference IDs

Obesity - initial treatment plan

Consider behavioural interventions

Evidence grade

Reference IDs

55
4, 10, 13, 22, 44, 55, 56, 62, 67, 88

Risk stratification

Evidence grade

Reference IDs

7, 27, 38, 55, 70

Provide dietary advice

Evidence grade

Reference IDs

1, 4, 6, 8, 21, 22, 35, 39, 40, 41, 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


ID Reference
### ID Reference

<table>
<thead>
<tr>
<th>ID</th>
<th>Reference</th>
</tr>
</thead>
</table>
ID Reference
http://www.icsi.org/obesity/prevention_and_management_of_obesity_mature_adolescents_and_adults_2.html


73 Schneider WL. Laparoscopic adjustable gastric banding for clinically severe (morbid) obesity. Edmonton, AL: Institute of Health Economics (IHE); 2000.


ID Reference
http://www.surgeons.org/asernip-s/publications_obesity.htm


http://www.mcgill.ca/tau/publications/

http://www.ahrq.gov/clinic/tb/obeshtp.htm

http://www.icsi.org/guidelines_and_more/technologyassessmentReports/technologyassessmentReports_-_Active/behavioral_therapy_programs_for_weight_loss_in_adults.html

http://www.icsi.org/guidelines_and_more/technologyassessmentReports/technologyassessmentReports_-_Active/gastric_restrictive_surgery_for_clinically_severe_obesity_in_adults.html

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

Disclaimers

NHS Institute for Innovation and Improvement
It is not the function of the NHS Institute for Innovation and Improvement to substitute for the role of the clinician, but to support the clinician in enabling access to know-how and knowledge. Users of the Map of Medicine are therefore urged to use their own professional judgement to ensure that the patient receives the best possible care. Whilst reasonable efforts have been made to ensure the accuracy of the information on this online clinical knowledge resource, we cannot guarantee its correctness or completeness. The information on the Map of Medicine is subject to change and we cannot guarantee that it is up-to-date.

BMJ Publishing Group Ltd
The updates supplied by the BMJ toward the Evidence Summary are prepared by systematically reviewing certain published medical research and guidelines relevant to the topics covered, as agreed with Map of Medicine Ltd. Readers should be aware that professionals in the field may have different opinions and not all studies are covered. Because of this fact and also because of regular advances in medical research, we strongly recommend that readers independently verify any information they choose to reply on. Ultimately it is the readers’ responsibility to make their own professional judgements. The BMJ Publishing Group Ltd does not independently verify the accuracy of the published research or guidelines and is not responsible for changes being made within the Map of Medicine as a result of the evidence. The updates to the Evidence Summaries are supplied on an "as is" basis without warranty of any kind express or implied and to the fullest extent permitted by law, accepts no liability for losses, injury or damage caused to any person or property (including under contract, by negligence, products liability or otherwise) whether they be direct or indirect, special, incidental or consequential, resulting from the application the information, errors or omissions in the updates supplied for Evidence Summary, the Evidence Summary, the Pathways covered by it or the research referred to in it.


IMPORTANT NOTE
Last reviewed refers to the date of completion of the most recent review process for a pathway. All pathways are reviewed regularly every twelve months, and on an ad hoc basis if required. Due for review refers to the date after which the pathway on this page is no longer valid for use. Pathways should be reviewed before the due for review date is reached.