



SIGN

Scottish Intercollegiate Guidelines Network

Part of NHS Quality Improvement Scotland



Quality
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Scotland

Management of Obesity

Quick Reference Guide



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INTRODUCTION

Obesity in Scotland has reached epidemic proportions and its prevalence is increasing. The impact on physical and mental well-being is now recognised at a national level.

This SIGN guideline provides evidence based recommendations on the prevention and treatment of obesity within the clinical setting, in children, young people and adults.

The guideline addresses:

- primary prevention of obesity in children, young people and adults
- treatment of overweight/obesity by diet and lifestyle interventions
- treatment of obesity by pharmacological therapy and bariatric surgery
- prevention of weight regain following treatment.

This quick reference guide provides a summary of the main recommendations contained in the guideline. Recommendations are arranged in the following sections.

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This Quick Reference Guide provides a summary of the main recommendations in **SIGN guideline 115: Management of Obesity**.

Recommendations are graded **A B C D** to indicate the strength of the supporting evidence.

Good practice points are provided where the guideline development group wishes to highlight specific aspects of accepted clinical practice.

Details of the evidence supporting these recommendations can be found in the full guideline, available on the SIGN website: www.sign.ac.uk

DIAGNOSING OVERWEIGHT AND OBESITY IN ADULTS

B	BMI should be used to classify overweight or obesity in adults.
C	Waist circumference may be used, in addition to BMI, to refine assessment of risk of obesity-related comorbidities.

BODY MASS INDEX THRESHOLDS IN ADULTS

BMI kg/m ²	Definition
< 18.5	Underweight
18.5- 24.9	Normal range
25 - 29.9	Overweight
30 - 34.9	Obesity I
35 - 39.9	Obesity II
≥ 40	Obesity III

PREVENTION OF OVERWEIGHT AND OBESITY IN ADULTS

B	<p>Individuals consulting about weight management should be advised to reduce:</p> <ul style="list-style-type: none"> ▪ intake of energy-dense foods (<i>including foods containing animal fats, other high fat foods, confectionery and sugary drinks</i>) by selecting low energy-dense foods instead (<i>for example wholegrains, cereals, fruits, vegetables and salads</i>) ▪ consumption of 'fast foods' (<i>eg 'take-aways'</i>) ▪ alcohol intake.
<input checked="" type="checkbox"/>	Healthcare professionals should emphasise healthy eating. The eatwell plate is the nationally recognised model representing a healthy, well balanced diet based on the five food groups. (www.eatwell.gov.uk)
B	Individuals consulting about weight management should be encouraged to be physically active and reduce sedentary behaviour, including television watching.
B	Adults consulting about weight management should be encouraged to undertake regular self weighing.

IDENTIFYING HIGH RISK GROUPS IN ADULTS

B	Healthcare professionals should offer weight management interventions to patients who are planning to stop smoking.
B	Weight management measures should be discussed with patients who are prescribed medications associated with weight gain.
B	Where relevant, patients should be advised that use of combined contraceptives or hormone replacement therapy is not associated with significant weight gain.

HEALTH BENEFITS OF WEIGHT LOSS IN ADULTS

Healthcare professionals should make patients aware of the following health benefits associated with sustained modest weight loss:

A	<ul style="list-style-type: none">▪ improved lipid profiles▪ reduced osteoarthritis-related disability.
B	<ul style="list-style-type: none">▪ lowered all-cause, cancer and diabetes mortality in some patient groups▪ reduced blood pressure▪ improved glycaemic control▪ reduction in risk of type 2 diabetes▪ potential for improved lung function in patients with asthma.
<input checked="" type="checkbox"/>	<p>The aim of weight loss and weight maintenance interventions should be to:</p> <ul style="list-style-type: none">▪ improve pre-existing obesity-related comorbidities▪ reduce the future risk of obesity-related comorbidities▪ improve physical, mental and social well-being.
<input checked="" type="checkbox"/>	<p>Weight loss targets should be based on the individual's comorbidities and risks, rather than their weight alone:</p> <ul style="list-style-type: none">▪ in patients with BMI 25-35 kg/m² obesity-related comorbidities are less likely to be present and a 5-10% weight loss (<i>approximately 5-10 kgs</i>) is required for cardiovascular disease and metabolic risk reduction.▪ in patients with BMI > 35 kg/m² obesity-related comorbidities are likely to be present therefore weight loss interventions should be targeted to improving these comorbidities; in many individuals a greater than 15-20% weight loss (<i>will always be over 10 kg</i>) will be required to obtain a sustained improvement in comorbidity. <p>Some patients do not fit these categories. Patients from certain ethnic groups (eg South Asians) are more susceptible to the metabolic effects of obesity and related comorbidity is likely to present at lower BMI cut-off points than in individuals of European extraction. The thresholds for weight loss intervention should reflect the needs of the individual.</p>
<input checked="" type="checkbox"/>	<p>Measurement of the success of the weight loss intervention should include a measurement of improvement in comorbidity as well as absolute weight loss.</p>

ASSESSMENT IN ADULTS

- When assessing patients with obesity, comorbidities and coexistent risk factors should be taken into account in the history and examination with further investigation as appropriate.
- Tests of liver function should be considered in patients with obesity.

ASSESSING MOTIVATION FOR BEHAVIOUR CHANGE

- D Healthcare professionals should discuss willingness to change with patients and then target weight loss interventions according to patient willingness around each component of behaviour required for weight loss, eg specific dietary and/or activity changes.**
- The Healthy Living Readiness Ruler is recommended to facilitate discussions with patients contemplating weight loss behaviours.
(See full guideline Annex 4).

WEIGHT CYCLING

- Patients should be encouraged to make sustainable lifestyle changes and given support to avoid weight cycling.
- Weight history, including previous weight loss attempts, should be part of the assessment of patients with obesity.

BINGE-EATING DISORDER

- C Healthcare professionals should be aware of the possibility of binge-eating disorder in patients who have difficulty losing weight and maintaining weight loss.**
- Weight management programmes should not exclude patients with binge-eating disorder.

WEIGHT MANAGEMENT PROGRAMMES AND SUPPORT FOR WEIGHT LOSS MAINTENANCE IN ADULTS

- All practitioners delivering weight management services should be appropriately trained and qualified to deliver the specific interventions and have ongoing specialist supervision where relevant.
- A Weight management programmes should include physical activity, dietary change and behavioural components.**
- Reducing inactivity should be a component of weight management programmes.
- B Delivery of evidence based weight management programmes through the internet should be considered as part of a range of options for patients with obesity.**

DIETARY INTERVENTIONS IN ADULTS

- A Dietary interventions for weight loss should be calculated to produce a 600 kcal/day energy deficit. Programmes should be tailored to the dietary preferences of the individual patient.**
- When discussing dietary change with patients, healthcare professionals should emphasise achievable and sustainable healthy eating.
- D Where very low calorie diets are indicated for rapid weight loss, these should be conducted under medical supervision.**

PHYSICAL ACTIVITY IN ADULTS

A Overweight or obese individuals should be supported to undertake increased physical activity as part of a multicomponent weight management programme.

B Overweight and obese individuals should be prescribed a volume of physical activity equal to approximately 1,800-2,500 kcal/week. This corresponds to approximately 225-300 min/week of moderate intensity physical activity (which may be achieved through five sessions of 45-60 minutes per week, or lesser amounts of vigorous physical activity).

GOOD PRACTICE IN PHYSICAL ACTIVITY INTERVENTIONS

- Clear and realistic activity goals should be set and individuals should be encouraged to use relevant support mechanisms in order to increase their chances of maintaining their activity on a long term basis (eg regular interactions with appropriately trained professionals, the opportunity to participate in group sessions, and support from family members and others undertaking the exercise programme).
Overweight and obese individuals should be made aware of the significant health benefits associated with an active lifestyle, many of which are independent of weight loss (eg *decreased risk of cardiovascular disease, enhanced social opportunities, improved self efficacy and confidence*).
- It is important to ensure that individuals have no contraindications to exercise before commencing a physical activity programme. The physical activity readiness questionnaire (PAR-Q) provides a quick and validated mechanism for determining whether individuals should undergo further screening investigations prior to embarking on a programme of increased physical activity.
- Moderate intensity physical activity increases the rate of breathing and body temperature, but conversation is comfortable at this pace. Heart rate is in the range 55-70% of age-predicted maximum (220 minus age). For obese, sedentary individuals, brisk walking (ie walking at faster than normal pace) often constitutes moderate intensity physical activity.
 - Energy is expended at a faster rate during vigorous activity compared with moderate intensity activity, which means that the same energy can be expended in a shorter period of time. In vigorous intensity physical activity, conversation is harder, but still possible. Heart rate is 70-90% of age-predicted maximum. Some individuals may prefer this approach, as it is less time consuming, but vigorous exercise is probably not appropriate for the very obese (BMI > approximately 35 kg/m²).
- Physical activity can be accumulated over the course of the day in multiple small sessions (of at least 10 minutes duration each) and does not need to be performed in a single session.
- Sedentary individuals should build up to their physical activity targets over several weeks, starting with 10-20 minutes of physical activity every other day during the first week or two of the programme, to minimise potential muscle soreness and fatigue. Individuals choosing to incorporate vigorous intensity activity into their programme should do this gradually and after an initial 4-12 week period of moderate intensity activity.
- Walking is an excellent form of physical activity for overweight and obese people. Walking one kilometre (0.62 miles) on flat ground burns approximately 60 kcal for a 70 kg person and 90 kcal for a 100 kg person. Such weight-bearing physical activity may be difficult for some individuals with BMI over approximately 35 kg/m², particularly for those with joint problems. In these individuals, gradually increasing non-weight-bearing moderate intensity physical activities (eg cycling, swimming, water aerobics, etc) should be encouraged.

PSYCHOLOGICAL/BEHAVIOURAL INTERVENTIONS IN ADULTS

A	Individual or group based psychological interventions should be included in weight management programmes.
<input checked="" type="checkbox"/>	Psychological interventions should be tailored to the individual and their circumstances.
<input checked="" type="checkbox"/>	The range of appropriate psychological interventions and strategies includes: <ul style="list-style-type: none">▪ self monitoring of behaviour and progress▪ stimulus control (where the patient is taught how to recognise and avoid triggers that prompt unplanned eating)▪ cognitive restructuring (modifying unhelpful thoughts/thinking patterns)▪ goal setting▪ problem solving▪ assertiveness training▪ slowing the rate of eating▪ reinforcement of changes▪ relapse prevention▪ strategies for dealing with weight regain.

PHARMACOLOGICAL TREATMENT IN ADULTS

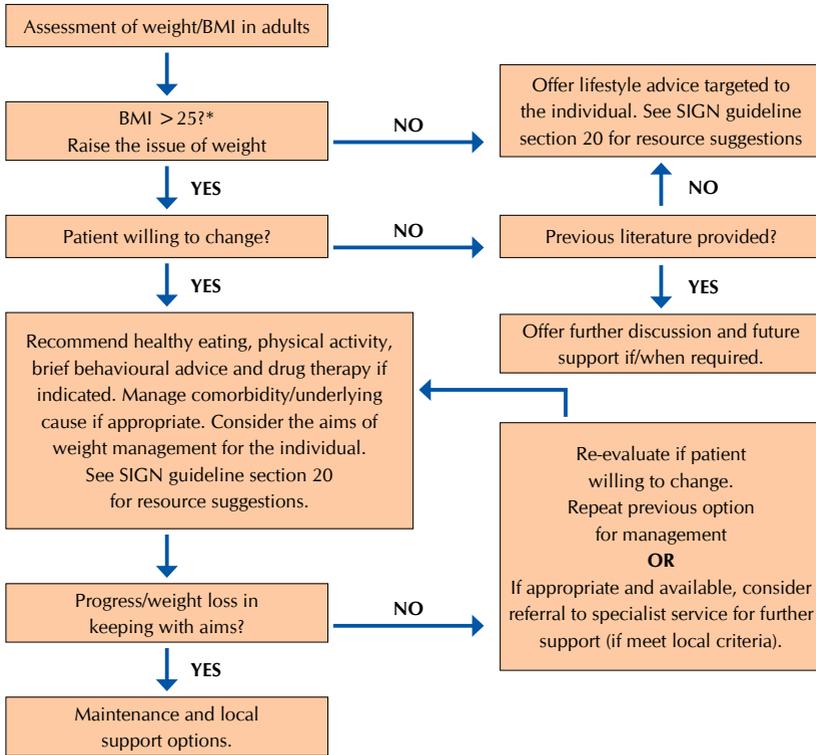
<input checked="" type="checkbox"/>	Orlistat should only be used where diet, physical activity and behavioural changes are supported.
A	Orlistat should be considered as an adjunct to lifestyle interventions in the management of weight loss. Patients with BMI ≥ 28 kg/m² (with comorbidities) or BMI ≥ 30 kg/m² should be considered on an individual case basis following assessment of risk and benefit.
<input checked="" type="checkbox"/>	Therapy with orlistat should be continued beyond 12 weeks only if the patient has lost at least 5% of their initial body weight since starting drug treatment. Therapy should then be continued for as long as there are clinical benefits (eg prevention of significant weight re-gain). This may involve medication use outside current licence. Ongoing risks and benefits should be discussed with patients.

BARIATRIC SURGERY IN ADULTS

<input checked="" type="checkbox"/>	Bariatric surgery should be included as part of an overall clinical pathway for adult weight management.
<input checked="" type="checkbox"/>	Bariatric surgery should be part of a programme of care that is delivered by a multidisciplinary team including, surgeons, dietitians, nurses, psychologists and physicians. There should be close communication between health professionals for effective management of patients' comorbidities as weight loss occurs.
<input checked="" type="checkbox"/>	Specialist psychological/psychiatric opinion should be sought as to which patients require assessment/treatment prior to or following surgery.
C	Bariatric surgery should be considered on an individual case basis following assessment of risk/benefit in patients who fulfil the following criteria: <ul style="list-style-type: none">▪ BMI ≥ 35 kg/m²▪ presence of one or more severe comorbidities which are expected to improve significantly with weight reduction (eg severe mobility problems, arthritis, type 2 diabetes).
	AND
<input checked="" type="checkbox"/>	<ul style="list-style-type: none">▪ evidence of completion of a structured weight management programme involving diet, physical activity, psychological and drug interventions, not resulting in significant and sustained improvement in the comorbidities.

C	Binge-eating disorder, dysfunctional eating behaviour, past history of intervention for substance misuse, psychological dysfunction or depression should not be considered absolute contraindications for surgery.
<input checked="" type="checkbox"/>	Dietary counselling should be provided before and after surgery. A standard dose of a multivitamin and micronutrient supplement could be considered post malabsorptive bariatric procedures.
<input checked="" type="checkbox"/>	Healthcare professionals should undertake the following in all patients post bariatric surgery: <ul style="list-style-type: none"> ▪ simple clinical assessments of micronutrient status (<i>eg ask about hair loss, neuropathic symptoms, skin and oral lesions, muscle weakness</i>) and ▪ simple blood tests (<i>eg full blood count, calcium, magnesium, phosphate and albumin</i>). Only patients with abnormalities should be considered for formal biochemical measurements of micronutrient status.
<input checked="" type="checkbox"/>	Calcium and vitamin D supplements (<i>800 IU per day cholecalciferol</i>) should be considered for all patients undergoing bariatric surgery. Baseline calcium and vitamin D should be measured to avoid iatrogenic hypercalcaemia.
<input checked="" type="checkbox"/>	Patients should be supported to increase their physical activity in a sustainable manner post surgery.
<input checked="" type="checkbox"/>	Policies on the criteria for receiving plastic surgery post bariatric surgery should be developed. These should be based on both BMI and consideration of long term benefit balanced against risks for the individual patient. Patients should be made aware of these policies as part of their informed consent for bariatric surgery.
<input checked="" type="checkbox"/>	Plastic surgery should be delayed until weight loss post bariatric surgery has reached a plateau.
REFERRAL AND SERVICE PROVISION IN ADULTS	
<input checked="" type="checkbox"/>	Health Boards should develop explicit care pathways offering a range of weight management interventions which may be targeted at the various subgroups of the population. Implementation should include a continuous improvement approach integrating ongoing audit and evaluation.
<input checked="" type="checkbox"/>	Consideration should be given to the establishment of a National Managed Clinical Network for treatment of severe and complex obesity.

SUGGESTED PRIMARY CARE PATHWAY FOR ADULTS WITH OVERWEIGHT AND OBESITY



Assessment

- **BMI**
- **Waist circumference**
- **Eating and physical activity**
- **Emotional/psychological issues**
- **Social history** (including alcohol and smoking)
- **Family history**, eg diabetes, CHD
- **Medication causes**, eg drugs associated with diabetes or mental health

Consider

- **Associated comorbidity**, eg diabetes, hypertension, CHD, sleep apnoea, respiratory problems, non-alcoholic fatty-liver disease
- **Underlying causes**, eg hypothyroidism

* South Asian, Chinese and Japanese individuals may be considered overweight at BMI > 23 and obese at BMI > 27.5

HEALTH CONSEQUENCES OF CHILDHOOD OBESITY

- Healthcare professionals should make parents aware that the following risk factors for cardiovascular disease and diabetes are relatively common in obese children and adolescents:
 - increased blood pressure
 - adverse lipid profiles
 - changes in left ventricular mass
 - hyperglycaemia and hyperinsulinaemia.
- Obese children showing signs of distress should be considered for referral for psychological assessment and treatment.

DIAGNOSIS OF OVERWEIGHT AND OBESITY IN CHILDREN AND YOUNG PEOPLE

- C** BMI centiles should be used to diagnose overweight and obesity in children.
- C** Waist circumference should not be used to diagnose overweight and obesity in children.
- D** International obesity task force cut-offs should not be used to diagnose overweight and obesity in children.

EPIDEMIOLOGICAL AND CLINICAL USE OF BMI CENTILE

- The UK 1990 reference data for BMI in childhood are recommended for clinical and epidemiological practice in the UK. BMI should be plotted at the correct age on a sex appropriate chart.
- For clinical use, overweight children are those with a BMI $\geq 91^{\text{st}}$ centile of the UK 1990 reference chart for age and sex.
- D** For clinical use, obese children are those with a BMI $\geq 98^{\text{th}}$ centile of the UK 1990 reference chart for age and sex.
- Severe obesity defines those children with a BMI $\geq 99.6^{\text{th}}$ centile of the UK 1990 reference chart for age and sex, very severe obesity defines those children with a BMI > 3.5 SD above the mean of the UK 1990 reference chart for age and sex, and extreme obesity defines those children with a BMI > 4 SD above the mean of the UK 1990 reference chart for age and sex.
- For public health use (eg surveillance):
 - overweight should be defined as BMI $\geq 85^{\text{th}}$ centile of the 1990 reference data
 - obesity should be defined as BMI $\geq 95^{\text{th}}$ centile of the 1990 reference data for age and sex.

PREVENTION OF OVERWEIGHT AND OBESITY IN CHILDREN AND YOUNG PEOPLE

- C** Sustainable school based interventions to prevent overweight and obesity should be considered by and across agencies. Parental/family involvement should be actively facilitated.

TREATMENT OF OBESITY IN CHILDREN AND YOUNG PEOPLE

LIFESTYLE INTERVENTIONS

B Treatment programmes for managing childhood obesity should incorporate behaviour change components, be family based, involving at least one parent/carer and aim to change the whole family's lifestyle. Programmes should target decreasing overall dietary energy intake, increasing levels of physical activity and decreasing time spent in sedentary behaviours (*screen time*).

All staff involved with management of childhood obesity should undertake training on the necessary lifestyle changes and in the use of behavioural modification techniques.

TREATMENT GOALS

D In most obese children ($BMI \geq 98^{th}$ centile) weight maintenance is an acceptable treatment goal.

D For children with a $BMI \geq 99.6^{th}$ centile a gradual weight loss to a maximum of 0.5–1.0 kg per month is acceptable.

The benefits of weight maintenance (*or modest weight loss in older children*) should be demonstrated to families by charting weight over time on the BMI centile chart.

D Weight maintenance and/or weight loss can only be achieved by sustained behavioural changes, eg:

- healthier eating, and decreasing total energy intake
- increasing habitual physical activity (*eg brisk walking*). In healthy children, 60 minutes of moderate-vigorous physical activity/day is recommended
- reducing time spent in sedentary behaviour (*eg watching television and playing computer games*) to < 2 hours/day on average or the equivalent of 14 hours/week.

D In overweight children (91^{st} to < 98^{th} BMI centile) weight maintenance is an acceptable goal. Annual monitoring of BMI centile may be appropriate to help reinforce weight maintenance and reduce the risk of overweight children becoming obese.

REFERRAL

D The following groups should be referred to hospital or specialist paediatric services before treatment is considered:

- children who may have serious obesity-related morbidity that requires weight loss (*eg benign intracranial hypertension, sleep apnoea; obesity hypoventilation syndrome, orthopaedic problems and psychological morbidity*)
- children with a suspected underlying medical (*eg endocrine*) cause of obesity including all children under 24 months of age who are severely obese ($BMI \geq 99.6^{th}$ centile).

Suspect an underlying medical cause of obesity if a child is obese and also short for their age.

ROLE OF SECONDARY CARE

Patients should be assessed for possible medical causes of obesity and existing comorbidities. Where these exist, weight loss is indicated, and specialist referral may be appropriate.

Where there is no underlying medical cause of obesity, patients should be referred back to primary care with the weight maintenance message reinforced.

PHARMACOLOGICAL TREATMENT IN YOUNG PEOPLE

- D** **Orlistat should only be prescribed for severely obese adolescents** (*those with a BMI \geq 99.6th centile of the UK 1990 reference chart for age and sex*) **with comorbidities or those with very severe to extreme obesity** (*BMI \geq 3.5 SD above the mean of the UK 1990 reference chart for age and sex*) **attending a specialist clinic. There should be regular reviews throughout the period of use, including careful monitoring for side effects.**

SURGICAL TREATMENT IN YOUNG PEOPLE

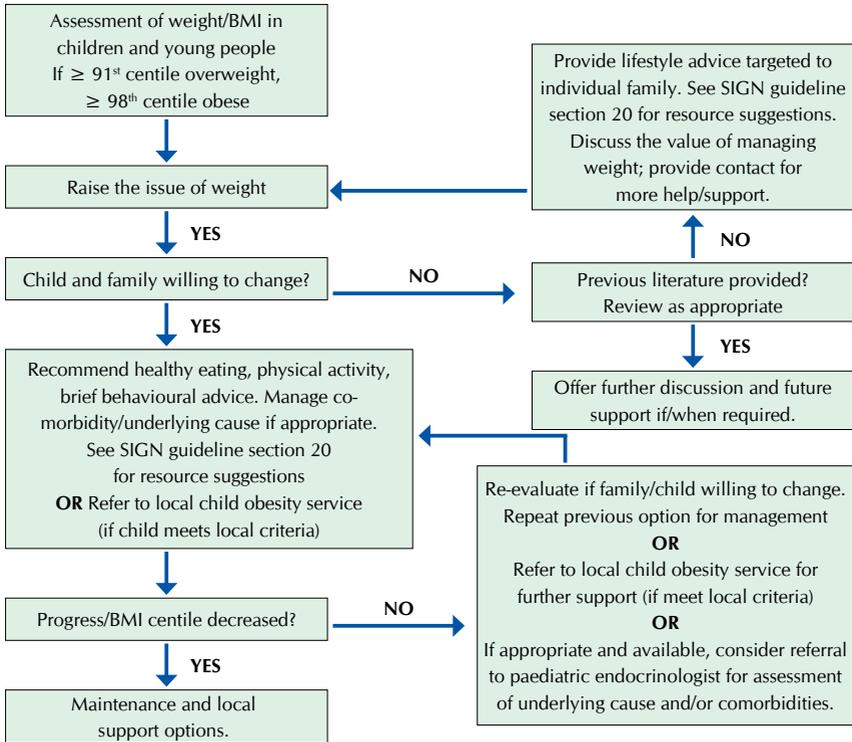
- D** **Bariatric surgery can be considered for post pubertal adolescents with very severe to extreme obesity** (*BMI \geq 3.5 SD above the mean on 1990 UK charts*) **and severe comorbidities.**

- Where surgery is being considered, the possible complications from the surgery and the long term commitment to clinical follow up needs to be clearly communicated to and discussed with both the patient and their parents.

Bariatric surgery should only be undertaken by a highly specialised surgical team within the framework of a multidisciplinary team.

Centres undertaking bariatric surgery in patients under 18 years of age should collect relevant data and should use appropriate statistical testing and present meaningful outcomes such as changes in mean or median BMI, BMI SD, BMI, weight and height.

SUGGESTED PRIMARY CARE PATHWAY FOR CHILDREN AND YOUNG PEOPLE WITH OVERWEIGHT AND OBESITY



Assessment

- Eating habits, physical activity patterns, sedentary behaviours, eg TV viewing
- BMI – plot on centile chart
- Emotional/psychological issues
- Social and school history
- Level of family support
- Stature of close family relatives (for genetic and environmental information)
- Family history, eg obesity/diabetes
- Non-medical symptoms, eg exercise intolerance, discomfort from clothes, sweating
- Mental health
- Acanthosis nigricans.

Consider

- **Associated comorbidity** – consider: metabolic syndrome, respiratory problems, hip and knee problems, diabetes, CHD, sleep apnoea, high blood pressure
- **Underlying cause** – consider: hypothyroidism, Cushing’s syndrome, growth hormone deficiency, Prader-Willi syndrome.

This information for discussion with patients/parents and carers was developed by the SIGN guideline development group in partnership with NHS Health Scotland, Food Standards Agency Scotland, Scottish and Nutrition Diet Resource Initiative and NHS Quality Improvement Scotland to ensure consistency of the messages and to allow compilation of relevant resources which health practitioners may use or refer their patients to. Information is neither exclusive nor exhaustive.

HEALTHY EATING

Birth to five years

- Exclusive breastfeeding is recommended for all infants from birth to the age of six months as it offers significant health benefits for babies and for mothers.
- Introduction of solid foods should be avoided until infants are six months old. Six months is also the recommended age for first introduction of solid foods for formula fed infants.
- From six months, solid foods should be introduced gradually; starting with mashed (not pureed) fruits and vegetables and then moving on to easily manageable finger foods such as soft cooked vegetables, rice cakes, and small pieces of bread.
- Foods which may cause allergies (milk, eggs, wheat, seeds, nuts, fish and shellfish) should be introduced one at a time to ensure any reaction is spotted immediately. For the most up-to-date advice on peanuts and peanut allergy see www.food.gov.uk/safereating/allergyintol/peanutspregnancy
- From approximately one year old, children would normally be expected to eat three meals a day and two between-meal snacks.
- Foods particularly high in fat and sugar such as sweets, cakes, crisps and deep fried foods are not necessary and should be kept to a minimum or avoided altogether.
- Care should also be taken to limit salt intake (less than 1 g/day up to age 12 months; from 1-3 years no more than 2 g/day; and a maximum of 3 g/day for 4-6 year olds).
- To ensure children up to the age of two consume adequate energy for growth and development from relatively small volumes of food, full fat versions of dairy products are recommended and foods very high in fibre should be avoided.
- From two years onwards, gradual introduction of low fat dairy products should be considered for children who are growing well and eating a varied diet, so that by the age of five most children are eating in accordance with the eatwell plate. Portion sizes should be appropriate to the age and size of the child.
- It is recommended that breastfeeding mothers take a supplement containing 10 mcg vitamin D. All babies and young children should be given vitamin drops containing vitamins A, C and D from age six months up to four years of age. Children from dark skinned minority ethnic groups are at particular risk of vitamin D deficiency.
- Free vitamin supplements are available for eligible families through the Healthy Start scheme (see www.healthystart.nhs.uk). The scheme also provides background information and advice for health professionals.
- Further information on nutrition from birth to five years is available in the NHS Health Scotland publications Ready Steady Baby (up to age 1 year) and Ready Steady Toddler (up to age 3 years).
- Information leaflets about breastfeeding and weaning may be available from the health promotion department of local NHS Boards and paediatric dietetic departments.

CHILDREN OVER FIVE YEARS AND ADULTS

- From age five a healthy, balanced diet in line with adult healthy eating guidelines should be encouraged for all other than those with specific clinical dietary requirements.
- Patients should be advised to choose foods from the five food groups in the proportions shown in the eatwell plate below. This includes everything eaten during the day, including snacks. Balance between the different groups is best achieved over a day or a few days rather than at each individual meal.
- The eatwell plate is suitable for healthy people of all ethnic origins and people who are of a healthy weight or overweight. It is also suitable for vegetarians.



- In line with the eatwell plate, individuals should aim to eat:
 - Bread, rice, potatoes, pasta and other starchy foods
 - Eat plenty, choose wholegrain varieties when you can
 - Fruit and vegetables
 - Eat plenty, at least five portions of a variety of fruit and vegetables a day
 - Milk and dairy foods
 - Eat some, choose lower fat alternatives whenever possible or eat higher fat versions infrequently or in smaller amounts
 - Meat, fish, eggs, beans and other non-dairy sources of protein
 - Eat some, choose lower fat alternatives whenever possible or eat higher fat versions infrequently or in smaller amounts. Aim for at least two portions of fish a week, including a portion of oily fish
 - Foods and drinks high in fat and/or sugar
 - Eat just a small amount

- Try to choose options that are lower in salt when you can. Adults should have no more than 6 g of salt a day.
- More information on the balance of foods in a healthy diet can be found at www.eatwell.gov.uk.
- To aid weight management it is important to encourage limiting the intake of energy-dense foods including confectionery, sugary drinks, fast foods and alcohol.
- Portions must be appropriate for the individual's age, gender, current weight and activity level. It is very important to highlight that children require smaller portion sizes than adults.

Checking the labels

- Reading labels can help individuals to choose lower fat and lower energy items. The Food Standards Agency system of traffic lights labelling may also be of assistance to patients in selecting lower fat, saturated fat, salt and sugar foods (www.eatwell.gov.uk/foodlabels/trafficlights/).

HELPING CHILDREN AND YOUNG PEOPLE TO MAINTAIN A HEALTHY WEIGHT

Encourage parents and carers to:

- ensure their children have regular meals, including breakfast, in a sociable atmosphere without distractions (such as watching television)
- whenever possible, eat meals with their children
- comfort their children with attention, listening and hugs instead of food
- separate eating from other activities such as watching television or using the computer
- encourage their children to listen to internal hunger cues and to eat to appetite
- avoid classifying foods as good or bad
- keep foods that their child should be avoiding out of the house.

PHYSICAL ACTIVITY

Children and young people

- Children and young people should be encouraged to increase their physical activity to help manage their weight and because of the other known health benefits, such as reduced risk of type 2 diabetes and cardiovascular disease.
- Children should be encouraged to do at least 60 minutes of moderate to vigorous activity each day. This can be accumulated in short bouts. Children who are already overweight may need to do more than 60 minutes activity, but should build up their physical activity time gradually.
- Parents should be aware that more than two hours of sedentary behaviour, particularly of screen time (TV watching, computer use and playing video games), for children per day should be discouraged.
- Children should be given the opportunity and support to be more active in their daily lives (such as walking, cycling, using the stairs and active play such as skipping) and supported to do more regular, structured physical activity (such as football, swimming or dancing).
- The choice of activity should be made with the child, and be appropriate to their age, ability and confidence.
- Encourage people to try to be more active as a family – for example, walking and cycling to school and shops, going to the park or swimming.
- Providing information on local opportunities to be active will make it easier for individuals to access them and enable them to make a longer term commitment to being active.

ADULTS

- Physical activity advice should be tailored for different groups and individuals. This is particularly important for people who are already overweight or obese (and may have comorbidity), or at a life stage with increased risk for weight gain (such as excess weight gain in pregnancy, weight retention postnatally, at the menopause or when stopping smoking).
- Adults should be encouraged to increase their physical activity, and not expect to lose weight as a result, because of the other health benefits physical activity can bring, such as reduced risk of type 2 diabetes and cardiovascular disease. Adults should be encouraged to do at least 30 minutes of moderate-intensity physical activity on five or more days a week.

Getting Started

Advice to individuals about increasing their physical activity should focus on activities that can fit easily into their everyday life and are tailored to their individual preferences and circumstances. The typical desirable activity patterns will comprise a mix of personal transport and job-related, household and recreational activities.

- Encourage individuals to start by doing what they can, and then to look for ways to do more. If they have not been active for a while, they should start out slowly. After several weeks or months activities can be built up by doing them for longer and more often.
- Walking is one way to encourage building physical activity into everyday life. When first starting, advise walking 10 minutes a day on a few days during the first couple of weeks.
- Add more time and days. Encourage individuals to walk a little longer. Trying 15 minutes instead of 10 minutes and walking on more days a week.
- Pick up the pace. Once this is easy to do, encourage them to try walking faster. After regular brisk walking for a couple of months, try, for example, adding biking or swimming at weekends for variety.

ADULTS WHO ARE OVERWEIGHT OR OBESE

- Overweight or obese individuals should be encouraged to increase energy expenditure by increasing the daily amount of physical activity they do as well as decreasing the amount of time spent on sedentary behaviours, eg television watching. The recommendations for physical activity are summarised as follows:
 - To prevent the gradual adult transition to overweight or obesity requires 45 - 60 minutes of moderate intensity activity per day, particularly if energy intake is not reduced.
 - People who have been obese and who have lost weight should be advised that they may need to do at least 60 minutes of moderate intensity activity a day to sustain their weight loss.
- Adults who come into contact with primary care should be offered an assessment of the health risks associated with their level of inactivity and then be referred to appropriate counselling and to community activities that are tailored to their specific interests.
- Adults who are overweight or obese will need to recognise that their daily requirement for physical activity has to increase from 30 minutes of moderate activity to at least 60 minutes of moderate activity. For example:
 - Making enjoyable activities part of everyday life, for example walking to and from work as part of a journey.
 - Building activity into the working day, for example taking the stairs instead of the lift, enjoying a walk at lunchtime.
 - Participating in supervised exercise programmes.

- Adults should be encouraged to build up to the recommended levels for weight maintenance, using a managed approach with agreed goals. Providing local information will make it easier for patients to access opportunities and enable them to make a longer-term commitment to being active. Any activity should take into account the person's current physical fitness and ability.
- A reduction in sedentary activities (such as sitting for long periods watching television, at a computer or playing video games) should be encouraged.

SAFETY

To participate in physical activity safely and reduce risk of injuries and other adverse events, people should:

- Understand the potential risks associated with any type of activity.
- Choose to do types of physical activity that are appropriate for their current fitness level and health goals.
- Increase physical activity gradually over time whenever more activity is necessary to meet guidelines or health goals. Inactive people should "start low and go slow" by gradually increasing how often and how long activities are done.
- Wear appropriate clothing and use suitable equipment where necessary.
- Be under the care of a health practitioner if they have chronic conditions or symptoms, and consult on appropriate types and amounts of activity.

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