



Resources for healthcare professionals

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This section provides tools for healthcare professionals. It has been divided into three sub-sections: tools to help healthcare professionals assess weight problems; tools to help raise the issue of weight with patients; and tools which give information about further resources.

Assessment of weight problems

- The tools in this sub-section give details of ways of assessing a patient's weight. **Tool E1** contains care pathways from the National Institute of Health and Clinical Excellence (NICE) and the Department of Health. **Tool E2** provides information on ways to identify patients who are most at risk of becoming obese later in life and are in most need of assistance before formal assessments of overweight are made. **Tools E3** and **E4** provide information on measuring and assessing overweight and obesity among children and adult patients.

Raising the issue of weight with patients – assessing readiness to change

- This sub-section follows on from assessment to raising the issue of weight with the patient and assessing their readiness to change. **Tool E5** details the Department of Health's advice for raising the issue. **Tool E6** provides the findings of research undertaken to gain insight into the perceptions – both of overweight patients and overweight healthcare professionals – when overweight healthcare professionals give advice on weight.

Resources for healthcare professionals

- This sub-section provides information on resources available to patients (**Tool E7**), and FAQs on childhood obesity (**Tool E8**). It also gives information on the National Child Measurement Programme (NCMP), including FAQs from parents (**Tool E9**). For information about training courses, see **Tool D15 Useful resources** in section D.

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TOOL E1 Clinical care pathways

TOOL
E1

For:	Healthcare professionals, particularly primary care clinicians
About:	This tool contains guidance from the National Institute for Health and Clinical Excellence (NICE) and the Department of Health. It provides clinical care pathways for children and adults.
Purpose:	To provide healthcare professionals with the official documents that clinicians should be using to assess overweight and obese individuals.
Use:	To be used when in consultation with an overweight or obese patient.
Resource:	<i>Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk <i>Care pathway for the management of overweight and obesity.</i> ¹²⁰ www.dh.gov.uk

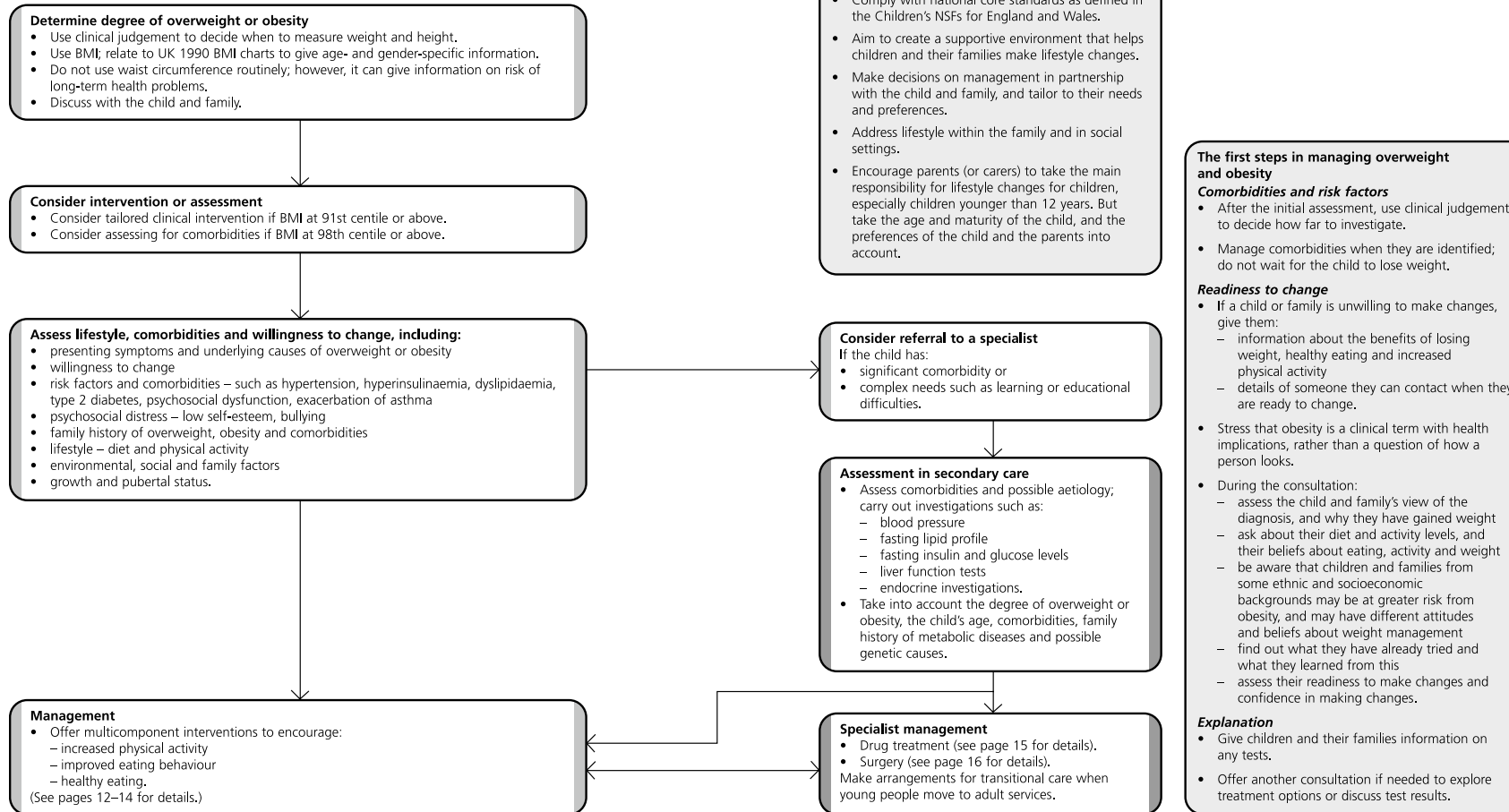
NICE guideline on obesity

NICE has developed clinical care pathways for children and adults for use by healthcare professionals. Further details can be found in *Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.*⁶ In addition, a summary of NICE recommendations and the clinical care pathways can be found in: *Quick reference guide 2: For the NHS,*²⁰⁴ which can be downloaded from the NICE website at www.nice.org.uk

Clinical care pathway for children

Management of overweight and obesity in children

Assessment and classification



Note: Please refer to the NICE guidelines for page references.

Management of overweight and obesity in adults

Assessment and classification

Determine degree of overweight or obesity

- Use clinical judgement to decide when to measure weight and height
- Use BMI to classify degree of obesity (see table 1, below) but use clinical judgement:
 - BMI may be less accurate in highly muscular people
 - for Asian adults, risk factors may be of concern at lower BMI
 - for older people, risk factors may become important at higher BMIs
- Use waist circumference in people with a BMI less than 35 kg/m² to assess health risks (see table 2, bottom left)
- Bioimpedance is not recommended as a substitute for BMI
- Tell the person their classification, and how this affects their risk of long-term health problems

Table 1 Classifying overweight and obesity

Classification	BMI (kg/m ²)
Healthy weight	18.5–24.9
Overweight	25–29.9
Obesity I	30–34.9
Obesity II	35–39.9
Obesity III	40 or more

Table 2 Assessing risks from overweight and obesity

BMI classification	Waist circumference		
	Low	High	Very high
Overweight	No increased risk	Increased risk	High risk
Obesity I	Increased risk	High risk	Very high risk

For men, waist circumference of less than 94 cm is low, 94–102 cm is high and more than 102 cm is very high.
 For women, waist circumference of less than 80 cm is low, 80–88 cm is high and more than 88 cm is very high.

Assess lifestyle, comorbidities and willingness to change, including:

- presenting symptoms and underlying causes of overweight or obesity
- eating behaviour
- risk factors and comorbidities – such as type 2 diabetes, hypertension, cardiovascular disease, dyslipidaemia, osteoarthritis and sleep apnoea; check lipid profile and blood glucose (preferably fasting) and blood pressure
- lifestyle – diet and physical activity
- psychosocial distress
- environmental, social and family factors, including family history of overweight and obesity and comorbidities
- willingness and motivation to change
- potential of weight loss to improve health
- psychological problems
- medical problems and medication.

Management

- Offer multicomponent interventions to encourage:
 - increased physical activity
 - improved eating behaviour
 - healthy eating (see pages 20–22 for details).
- Drug treatment (see page 23–24 for details).

General principles of care for adults

- Offer regular long-term follow-up by a trained professional.
- Ensure continuity of care through good record keeping.
- Make the choice of any intervention through negotiation with the person.
- Tailor the weight-management programme to the person's preferences, initial fitness, health status and lifestyle.
- In specialist settings, ensure there is equipment for treating people who are severely obese, such as special seating, and adequate weighing and monitoring equipment.
- Hospitals should have access to specialist equipment for general care of people who are severely obese, including larger scanners and beds.

Consider referral:

- for assessment of the underlying causes of overweight or obesity
- if the person has complex disease states or needs that cannot be managed in primary or secondary care
- if conventional treatment has failed
- if considering drug therapy for a person with a BMI more than 50 kg/m²
- if specialist interventions (such as a very-low-calorie diet for extended periods) may be needed
- if surgery is being considered.

Specialist assessment and management

- Assessment and management as needed.
- Surgery and follow-up (see pages 25–26).

A guide to deciding the initial level of intervention to discuss

BMI classification	Waist circumference			Co-morbidities present
	Low	High	Very high	
Overweight				
Obesity I				
Obesity II				
Obesity III				

General advice on healthy weight and lifestyle.
 Diet and physical activity.
 Diet and physical activity; consider drugs.
 Diet and physical activity; consider drugs; consider surgery.

The first steps in managing overweight and obesity

Comorbidities and risk factors

- After the initial assessment, use clinical judgement to decide how far to investigate.
- Manage comorbidities when they are identified; do not wait for the person to lose weight.

Readiness to change

- If the person is unwilling to make changes, give them:
 - information about the benefits of losing weight, healthy eating and increased physical activity
 - details of someone they can contact when they are ready to change.
- Stress that obesity is a clinical term with health implications, rather than a question of how a person looks.
- During the consultation:
 - assess the person's view of the diagnosis, and why they have gained weight
 - ask about their diet and activity levels, and beliefs about eating, activity and weight
 - be aware that people from some ethnic and socioeconomic backgrounds may be at greater risk from obesity, and may have different attitudes and beliefs about weight management
 - find out what they have already tried and what they learned from this
 - assess readiness to make changes and confidence in making changes.

Explanation

- Give people information on any tests.
- Offer another consultation if needed to explore treatment options or discuss test results.

Note: Please refer to the NICE guidelines for page references.

Care pathways from the Department of Health

Care pathway for the management of overweight and obesity

This booklet offers evidence-based guidance to help primary care clinicians identify and treat children, young people (under 20 years) and adults who are overweight or obese.¹²⁰ The booklet includes:

- Adult care pathway
- Children and young people care pathway
- Raising the issue of weight in adults
- Raising the issue of weight in children and young people.

The *Raising the issue of weight* tools provide tips on how to initiate discussion with patients. (See **Tool E5** for more on this.)

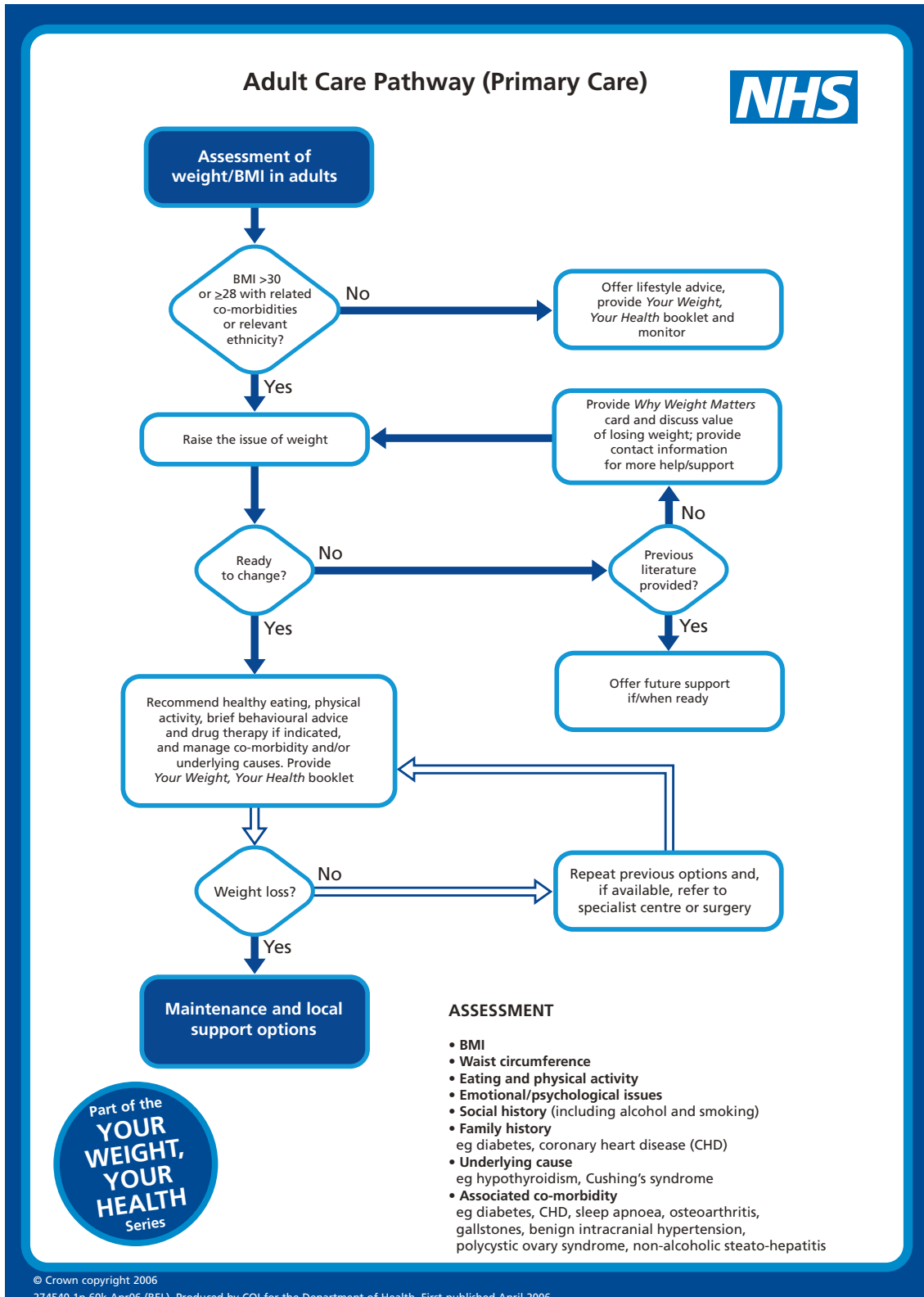
The pathways are also available as separate laminated posters (see pages 198-200).

To access these materials, visit www.dh.gov.uk or order copies from:

DH Publications Orderline
PO Box 777
London SE1 6XH
Email: dh@prolog.uk.com
Tel: 0300 123 1002
Fax: 01623 724 524
Minicom: 0300 123 1003 (8am to 6pm, Monday to Friday)

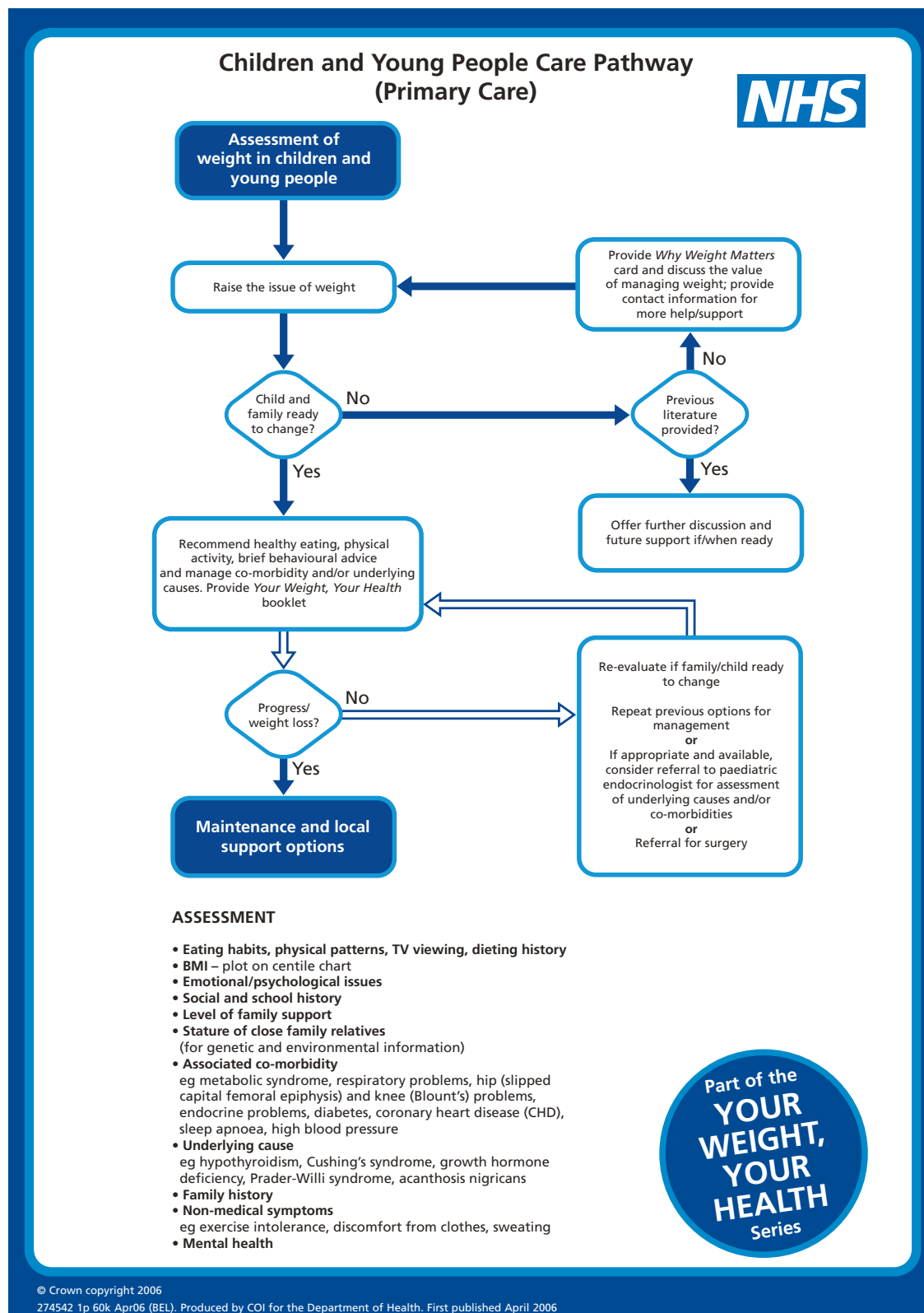
Adult care pathway

Laminated poster²⁰⁵ – available from Department of Health Publications (see page 198)



Children and young people care pathway

Laminated poster²⁰⁶ – available from Department of Health Publications (see page 198)





TOOL E2 Early identification of patients

TOOL
E2

For:	All healthcare professionals who are particularly in contact with children and pregnant women – midwives, health visitors, GPs, obstetricians, paediatricians, and so on
About:	This tool provides information on ways to identify those patients – particularly children and pregnant women – who are most at risk of becoming obese later in life and who are in most need of assistance, before formal assessments of overweight are made. Healthcare professionals will need to consult the Child Health Promotion Programme (CHPP) publication ¹⁵¹ for more detailed information, particularly about the CHPP schedule.
Purpose:	To provide background information on how healthcare professionals can identify patients most at risk of becoming obese later in life.
Use:	To be used to identify patients most at risk of becoming obese later in life.
Resource:	The information is reproduced from <i>The Child Health Promotion Programme: Pregnancy and the first five years of life</i> . ¹⁵¹ Please see the <i>CHPP schedule</i> as it sets out both the core universal programme to be commissioned and provided for all families, and additional preventive elements that the evidence suggests may improve outcomes for children with medium and high risk factors. Go to www.dh.gov.uk to download the document.

Assessment: Key points

Patients need a skilled assessment so that any assistance can be personalised to their needs and choices. Any system of early identification has to be able to:

- identify the risk factors that make some children more likely to experience poorer outcomes in later childhood, including family and environmental factors
- include protective factors as well as risks
- be acceptable to both parents
- promote engagement in services and be non-stigmatising
- be linked to effective interventions
- capture the changes that take place in the lives of children and families
- include parental and child risks and protective factors, and
- identify safeguarding risks for the child.

Social and psychological indicators

At-risk indicators: Children

Generic indicators can be used to identify children who are at risk of poor educational and social outcomes (for example, those with parents with few or no qualifications, poor employment prospects or mental health problems). Neighbourhoods also affect outcomes for children. Families subject to a higher-than-average risk of experiencing multiple problems include:

- families living in social housing
- families with a young mother or young father
- families where the mother's main language is not English

- families where the parents are not co-resident, and
- families where one or both parents grew up in care.

At-risk indicators: Pregnant women

It can be difficult to identify risks early in pregnancy, especially in first pregnancies, as often little is known about the experience and abilities of the parents, and the characteristics of the child.

Useful predictors during pregnancy include:

- young parenthood, which is linked to poor socioeconomic and educational circumstances
- educational problems – parents with few or no qualifications, non-attendance or learning difficulties
- parents who are not in education, employment or training
- families who are living in poverty
- families who are living in unsatisfactory accommodation
- parents with mental health problems
- unstable partner relationships
- intimate partner abuse
- parents with a history of anti-social or offending behaviour
- families with low social capital
- ambivalence about becoming a parent
- stress in pregnancy
- low self-esteem or low self-reliance, and
- a history of abuse, mental illness or alcoholism in the mother's own family.

Obesity-specific indicators

There are specific risk factors and protective factors for obesity. For example, a child is at a greater risk of becoming obese if one or both of their parents is obese.

Key point

Some of the indicators listed are more difficult to identify than others. Health professionals need to be skilled at establishing a trusting relationship with families and be able to build a holistic view.



TOOL E3 Measurement and assessment of overweight and obesity – ADULTS

TOOL
E3

For:	All healthcare professionals measuring and assessing overweight and obese children
About:	This tool contains detailed information on the measurement and assessment of overweight and obesity in adults. It provides details on how to measure overweight and obesity using Body Mass Index (BMI); how to measure waist circumference; how to assess overweight and obesity using BMI and waist circumference; how to assess the risks from overweight and obesity; and how to assess overweight and obesity using the height and weight chart. It provides specific details on Asian populations and brief details on the waist-hip ratio. This tool is consistent with NICE guidance and Department of Health recommendations.
Purpose:	To provide an understanding of how adults are measured and assessed.
Use:	To be used as background information when in consultation with an overweight or obese patient.
Resource:	<i>Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk <i>Measuring childhood obesity. Guidance to primary care trusts.</i> ²⁰⁷ www.dh.gov.uk

Measuring overweight and obesity using Body Mass Index

Adults

The National Institute for Health and Clinical Excellence (NICE) recommends that overweight and obesity are assessed using Body Mass Index (BMI).⁶ It is used because, for most people, BMI correlates with their proportion of body fat.

BMI is defined as the person's weight in kilograms divided by the square of their height in metres (kg/m²). For example, to calculate the BMI of a person who weighs 95kg and is 180cm tall:

$$\text{BMI} = \frac{95}{(1.80 \times 1.80)} = \frac{95}{3.24} = 29.32\text{kg/m}^2$$

Thus their BMI would be approximately 29kg/m².

NICE classifies 'overweight' as a BMI of 25 to 29.9kg/m² and 'obesity' as a BMI of 30kg/m² or more.⁶ This classification accords with that recommended by the World Health Organization (WHO).²¹ Further classifications linked with morbidity are shown on the next page. These cut-off points are based on epidemiological evidence of the link between mortality and BMI in adults.²¹

Classification of overweight and obesity among adults

Classification	BMI (kg/m ²)	Risk of co-morbidities*
Underweight	Less than 18.5	Low (but risk of other clinical problems increased)
Healthy weight	18.5–24.9	Average
Overweight (or pre-obese)	25–29.9	Increased
Obesity, class I	30–34.9	Moderate
Obesity, class II	35–39.9	Severe
Obesity, class III (severely or morbidly obese)	40 or more	Very severe

Note: NICE recommends that the BMI measurement should be interpreted with caution because it is not a direct measure of adiposity (amount of body fat).⁶

*Co-morbidities are the health risks associated with obesity, ie type 2 diabetes, hypertension (high blood pressure), stroke, coronary heart disease, cancer, osteoarthritis and dyslipidaemia (imbalance of fatty substances in the blood).

Source: National Institute for Health and Clinical Excellence, 2006,⁶ adapted from World Health Organization, 2000²¹

Adults of Asian origin

The concept of different cut-offs for different ethnic groups has been proposed by the WHO* because some ethnic groups have higher cardiovascular and metabolic risks at lower BMIs. This may be because of differences in body shape and fat distribution. Asian populations, in particular, have a higher proportion of body fat compared with people of the same age, gender and BMI in the general UK population. Thus, the proportion of Asian people with a high risk of type 2 diabetes and cardiovascular disease is substantial even at BMIs lower than the existing WHO cut-off point for overweight.

However, levels of morbidity vary between different Asian populations and for this reason it is difficult to identify one clear BMI cut-off point.²⁰⁹ Thus in the absence of worldwide agreement, NICE recommends that the current universal cut-off points for the general adult population (see table above) be retained for **all** population groups.⁶ This is in agreement with the WHO expert consultation group which also recommends trigger points for public health action for adults of Asian origin – 23kg/m² for increased risk and 27.5kg/m² for high risk.²¹⁰ NICE has recommended that healthcare professionals should use clinical judgement when considering risk factors in Asian population groups, even in people not classified as overweight or obese using the current BMI classification.⁶ This approach is supported by the Department of Health and the Food Standards Agency.

Using the BMI measurement in isolation

Although BMI is an acceptable approximation of total body fat at the population level and can be used to estimate the relative risk of disease in most people, it is not always an accurate predictor of body fat or fat distribution, particularly in muscular individuals, because of differences in body-fat proportions and distribution. Some other population groups, such as Asians and older people, have co-morbidity risk factors that would be of concern at different BMIs (lower for Asian adults as detailed above and higher for older people). Therefore, NICE recommends that waist circumference should be used in addition to BMI to measure central obesity and disease risk in individuals with a BMI less than 35kg/m².⁶ (See *Measuring BMI and waist circumference in adults to assess health risks* on page 206.)

* The proposed cut-offs are 18.5-22.9kg/m² (healthy weight), 23kg/m² or more (overweight), 23-24.9kg/m² (at risk), 25-29.9kg/m² (obesity I), 30kg/m² or more (obesity II).²⁰⁸

Measuring waist circumference

Adults

Waist circumference has been shown to be positively, although not perfectly, correlated to disease risk, and is the most practical measurement to assess a patient's abdominal fat content or 'central' fat distribution.¹²⁵ Central obesity is linked to a higher risk of type 2 diabetes and coronary heart disease.

NICE recommends that waist circumference can be used, in addition to BMI, to assess risk in adults with a BMI of less than 35kg/m².⁶ However, where BMI is greater than 35kg/m², waist circumference adds little to the absolute measure of risk provided by BMI.^{6, 126} This is because patients who have a BMI of 35kg/m² will exceed the waist circumference cut-off points (detailed below) used to identify people at risk of the metabolic syndrome.¹²⁵

Waist circumference thresholds used to assess health risks in the general population

At increased risk	Male	Female
Increased risk	94cm (37 inches) or more	80cm (31 inches) or more
Greatly increased risk	102cm (40 inches) or more	88cm (35 inches) or more

Source: National Institute for Health and Clinical Excellence, 2006,⁶ International Diabetes Federation (2005),²¹⁰ WHO/IASO/ITF (2000),²⁰⁸ World Health Organization (2000)²¹

Adults of Asian origin

Different waist circumference cut-offs for different ethnic groups have been proposed by the World Health Organization²⁰⁸ and the International Diabetes Federation.²¹⁰ * This is because ethnic populations have higher cardiovascular risk factors at lower waist circumferences than Western populations.²¹¹ For example, in South Asians (of Pakistani, Bangladeshi and Indian origin) living in England, a given waist circumference tends to be associated with more features of the metabolic syndrome than in Europeans.⁶

However, a unique threshold for all Asian populations may not be appropriate because different Asian populations differ in the level of risk associated with a particular waist circumference. For example, a study evaluating the average waist circumference of more than 30,000 individuals from East Asia (China, Hong Kong, Korea, and Taiwan), South Asia (India and Pakistan) and South-east Asia (Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam) found that there were major differences between regions. Thus, the researchers concluded that the impact of obesity may begin at different thresholds in different Asian populations.²¹²

Because a globally applicable grading system of waist circumference for ethnic populations has not yet been developed, NICE does not recommend separate waist circumference cut-offs for different ethnic groups in the UK.⁶

Using the waist circumference measurement in isolation

Waist circumference should never be used in isolation, as a proportion of subjects who require weight management may not be identified.¹²⁶ Thus NICE recommends the use of the table on the next page to assess the level of weight management required.⁶

* The International Diabetes Federation (IDF) and the World Health Organization have proposed separate waist circumference thresholds for adults of Asian origin of 90cm (35 inches) or more for men, and 80cm (31 inches) or more for women. Note that the IDF definition is for South Asians and Chinese populations only.^{21, 208, 210}

NICE states that: "The level of intervention should be higher for patients with comorbidities, regardless of their waist circumference."⁶

Assessing the level of weight management: a guide

BMI classification	Waist circumference			Co-morbidities present
	Low	High	Very high	
Overweight				
Obesity I				
Obesity II				
Obesity III				

General advice on healthy weight and lifestyle

Diet and physical activity

Diet and physical activity; consider drugs

Diet and physical activity; consider drugs; consider surgery

Source: National Institute for Health and Clinical Excellence, 2006⁶

Measuring BMI and waist circumference in adults to assess health risks

The World Health Organization (WHO) has recommended that an individual's relative health risk could be more accurately classified using both BMI and waist circumference.²¹ This is shown below for the general adult population.

Combining BMI and waist measurement to assess obesity and the risk of type 2 diabetes and cardiovascular disease – general adult population^{21, 6, 126}

Classification	BMI (kg/m ²)	Waist circumference and risk of co-morbidities	
		Men: 94–102cm	Men: More than 102cm
		Women: 80-88cm	Women: More than 88cm
Underweight	Less than 18.5	–	–
Healthy weight	18.5–24.9	–	Increased
Overweight (or pre-obese)	25–29.9	Increased	High
Obesity	30 or more	High	Very high

Source: National Institute for Health and Clinical Excellence, 2006⁶

Measuring waist-hip ratio

Adults

Waist-hip ratio is another measure of body fat distribution. The waist-hip measurement is defined as waist circumference divided by hip circumference, ie waist girth (in metres) divided by hip girth (in metres). Although there is no consensus about appropriate waist-hip ratio thresholds, a raised waist-hip ratio is commonly taken to be 1.0 or more in men, and 0.85 or more in women.^{6, 208} However, neither NICE nor the Department of Health recommends the use of waist-hip ratio as a standard measure of overweight or obesity.

Assessment

Assessment of overweight and obesity using BMI and waist circumference

Management should begin with the assessment of overweight and obesity in the patient. BMI should be used to classify the degree of obesity, and waist circumference may be used in people with a BMI less than 35kg/m² to determine the presence of central obesity. NICE recommends that the assessment of health risks associated with overweight and obesity in adults should be based on BMI and waist circumference as shown below.⁶

Assessing risks from overweight and obesity

BMI classification	Waist circumference		
	Low	High	Very high
Overweight	No increased risk	Increased risk	High risk
Obesity I	Increased risk	High risk	Very high risk

For men, waist circumference of less than 94cm is low, 94–102cm is high and more than 102cm is very high.
For women, waist circumference of less than 80cm is low, 80–88cm is high, and more than 88cm is very high.

Source: National Institute for Health and Clinical Excellence, 2006 ⁶

Assessments also need to include holistic aspects focusing on psychological, social and environmental issues. There is a need for training for professionals who carry out assessments due to the sensitive and multifaceted nature of overweight and obesity. Professionals need to be aware of patients' motivations and expectations. Effective assessment and intervention require support, understanding and a non-judgemental approach.

Assessing and classifying overweight and obesity in adults

NICE recommends the following approach to assessing and classifying overweight and obesity in adults.

Determine degree of overweight or obesity

- Use clinical judgement to decide when to measure weight and height
- Use BMI to classify degree of obesity ... but use clinical judgement:
 - BMI may be less accurate in highly muscular people
 - for Asian adults, risk factors may be of concern at lower BMI
 - for older people, risk factors may become important at higher BMIs
- Use waist circumference in people with a BMI less than 35kg/m² to assess health risks
- Bioimpedance is not recommended as a substitute for BMI
- Tell the person their classification, and how this affects their risk of long-term health problems.

Assess lifestyle, comorbidities and willingness to change, including:

- presenting symptoms and underlying causes of overweight or obesity
- eating behaviour
- comorbidities (such as type 2 diabetes, hypertension, cardiovascular disease, osteoarthritis, dyslipidaemia and sleep apnoea) and risk factors, using the following tests
 - lipid profile and blood glucose (both preferably fasting) and blood pressure measurement
- lifestyle – diet and physical activity
- psychosocial distress and lifestyle, environmental, social and family factors – including family history of overweight and obesity and comorbidities
- willingness and motivation to change
- potential of weight loss to improve health
- psychological problems
- medical problems and medication.

Source: Reproduced from National Institute for Health and Clinical Excellence, 2006⁶

Assessment of overweight and obesity using the height and weight chart

The height and weight chart shown on the next page can be used as a crude assessment of overweight and obesity. To use the chart follow the simple instructions at the top of the chart.



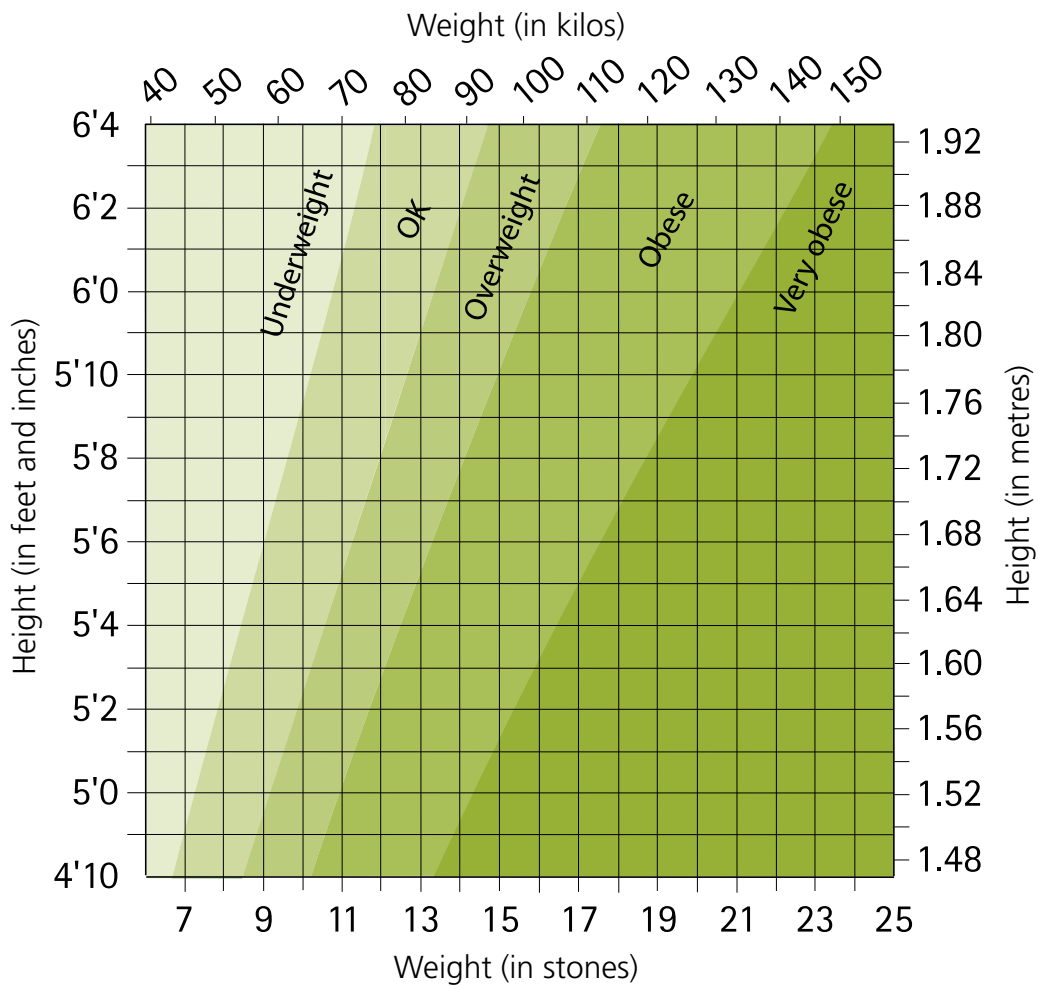
Tool E1 provides further information on NICE and Department of Health guidance for assessing and managing overweight and obesity in a clinical setting.

Note:

The NHS Local Delivery Plan monitoring line on adult obesity status requires general practices to monitor and return data on the obesity status (BMI) of GP-registered adults within the past 15 months.

Height and weight chart

Take a straight line across from the person's height (without shoes), and a line up or down from their weight (without clothes). Put a mark where the two lines meet to find out if the person needs to lose weight.



Underweight (BMI less than 18.5kg/m²)

A more calorie-dense diet may be needed to maintain current activity levels. In cases of very low weight for height, medical advice should be considered.

OK (BMI 18.5 – 24.9kg/m²)

This is the optimal, desirable or 'normal' range. Calorie intake is appropriate for current activity levels.

Overweight (BMI 25 – 29.9kg/m²)

Some loss of weight might be beneficial to health.

Obese (BMI 30 – 39.9kg/m²)

There is an increased risk of ill health and a need to lose weight. Regular health checks are required.

Very obese (BMI 40kg/m² or above)

This is severe or 'morbid' obesity. There is a greatly increased risk of developing complications of obesity and an urgent need to lose weight. Specialist advice should be sought.



TOOL E4 Measurement and assessment of overweight and obesity – CHILDREN

TOOL
E4

For:	All healthcare professionals measuring and assessing overweight and obese children
About:	This tool contains detailed information on the measurement and assessment of overweight and obesity in children. It provides information on how to measure overweight and obesity using Body Mass Index (BMI) and growth reference charts; provides information on measuring waist circumference; and provides details on how to assess overweight and obesity in children. BMI charts are provided at the end of this tool for girls and boys. This tool is consistent with NICE guidance and also Department of Health recommendations.
Purpose:	To provide an understanding of how children are measured and assessed.
Use:	To be used as background information when in consultation with an overweight or obese child.
Resource:	<i>Obesity: the prevention, identification, assessment and management of overweight and obesity in adults and children.</i> ⁶ www.nice.org.uk <i>Measuring childhood obesity. Guidance to primary care trusts.</i> ²⁰⁷ www.dh.gov.uk

Measuring overweight and obesity using Body Mass Index

The National Institute for Health and Clinical Excellence (NICE) recommends that BMI (adjusted for age and gender) should be used as a practical estimate of overweight in children and young people. The BMI measurement in children and young people should be related to the UK 1990 BMI growth reference charts to give age- and gender-specific information. Pragmatic indicators for action have been recommended as the 91st centile for overweight, and the 98th centile for obesity.⁶ (For reference charts, see pages 215 and 216.)

BMI is calculated by dividing an individual's weight in kilograms by the square of their height in metres (kg/m²).

There is widespread international support for the use of BMI to define obesity in children,^{3, 23, 120} even though there is no universally accepted BMI-based classification system for childhood obesity. This is because for children and young people, BMI is not a static measurement, but varies from birth to adulthood, and is different between boys and girls. Interpretation of BMI values in children and young people therefore depends on comparisons with population reference data, using cut-off points in the BMI distribution (BMI percentiles).³

Different growth reference charts can be used to assess the degree of overweight or obesity of a child. These are calculated to allow for age, sex and height. NICE has recommended that the BMI measurement in children and young people should be related to the UK 1990 BMI growth reference charts⁴ to give age- and gender-specific information.⁶ The Growth Reference Review Group, a working group convened by the Royal College of Paediatrics and Child Health (RCPCH), has also recommended that for children under the age of 2 years, the UK 1990 reference charts²¹³ are the only suitable charts for weight, length and head circumference. It also recommended that

the UK 1990 BMI reference is the only suitable reference for assessing weight relative to height.²¹⁴ However, the Australian NHMRC guidelines for children highlighted several difficulties with the BMI-for-age percentile cut-offs:

- Data are derived from a reference population.
- Classifying a child as overweight or obese on the basis of BMI being above a certain percentile is an arbitrary decision and is not based on known medical or health risk.¹²⁷

These difficulties have resulted in different BMI centiles being used. For example, the NHMRC guidelines have recommended that a BMI above the 95th percentile is indicative of obesity and a BMI above the 85th percentile is indicative of overweight.¹²⁷ However, the SIGN guidelines have recommended that a BMI at the 98th percentile or over is indicative of obesity (on the UK 1990 reference charts for BMI centiles for children²¹³), and a BMI at the 91st percentile is indicative of overweight.²³ The Department of Health has also recommended that the 98th and 91st centiles of the UK 1990 reference chart for age and sex be used to define obesity and overweight, respectively.¹²⁰ This is because when using the BMI of more than the 91st centile on the UK 1990 charts, sensitivity is moderately high (it diagnoses few obese children as lean) and specificity is high (it diagnoses few lean children as obese) which is paramount for routine clinical use.^{23, 215}

Note: NICE recommendation for specific cut-offs for overweight and obesity – NICE considered that there was a lack of evidence to support specific cut-offs in children. However, the recommended pragmatic indicators for action are the 91st and 98th centiles (overweight and obese, respectively).⁶

See pages 215 and 216 for centile BMI charts for boys and girls.

Use of growth reference charts in clinical settings

The growth reference or BMI charts are used in two broad clinical settings: for the assessment and monitoring of individual children, and for screening whole populations.²¹⁴

Assessing and monitoring individual children

- BMI reference curves for the UK, 1990²¹³ – NICE recommends that the 91st centile (overweight) and the 98th centile (obese) of the 1990 UK reference chart be used for assessing and monitoring individual children.⁶ The Department of Health and SIGN make the same recommendation.^{23, 120}

Screening whole populations

- *UK National BMI Percentile Classification*²¹³ – The majority of published epidemiological work has used a definition of obesity as a BMI of more than the 95th centile, and overweight as a BMI of more than the 85th centile of the UK 1990 reference chart for age and sex.²³ SIGN has recommended that, for comparative epidemiological purposes, it is important to retain this definition.

- *International Classification* – An alternative method for measuring childhood obesity is the International Obesity Task Force (IOTF) international classification²¹⁶ using data collected from six countries (UK, Brazil, Hong Kong, the Netherlands, Singapore and the United States) of a total of 190,000 subjects aged from 0 to 25 years. This classification links childhood and adult obesity/overweight standards using evidence of clear associations between the adult BMI cut-off values of 25kg/m² and 30kg/m² and health risk. However, it has been reported that the international cut-offs exaggerate the differences in overweight and obesity prevalence between boys and girls by underestimating prevalence in boys. Other possible limitations include concerns about sensitivity (the ability to identify all obese children as obese), the limited sample size of the reference population and the lack of BMI cut-off points for underweight.²¹⁷

Measuring waist circumference

Until recently, waist circumference in children had not been regarded as being an important measure of fatness. Although the health risks associated with an excessive abdominal fat distribution in children in comparison with adults remain unclear, mounting evidence suggests that this is an important measurement. For example, data from the Bogalusa Heart Study showed that an abdominal fat distribution (indicated by waist circumference) in children aged between 5 and 17 years was associated with adverse concentrations of triglyceride, LDL cholesterol, HDL cholesterol and insulin.²¹⁸ The first set of working waist circumference percentiles was produced using data collected from British children.²¹⁹ Although there is no consensus about how to define obesity among children using waist measurement, for clinical use the 99.6th or 98th centiles are the suggested cut-offs for obesity and the 91st centile is the cut-off for overweight.²¹⁹

NICE⁶ and the Department of Health¹²⁰ do not currently recommend using waist circumference as a means of diagnosing childhood obesity as there is no clear threshold for waist circumference associated with morbidity outcome in children and young people.^{127, 207} Thus, NICE recommends that waist circumference is not used as a routine measurement in children and young people, but may be used to give additional information on the risk of developing other long-term health problems.

Assessment

NICE recommends that assessment should begin by measuring BMI and relating it to the UK 1990 BMI charts to give age- and gender-specific information.⁶ See charts on pages 215 and 216.

It recommends the approach to assessing and classifying overweight and obesity in children shown in the box on the next page.

Assessment and classification of overweight and obesity in children

Determine degree of overweight or obesity

- Use clinical judgement to decide when to measure weight and height.
- Use BMI; relate to UK 1990 BMI charts to give age- and gender-specific information.
- Do not use waist circumference routinely; however, it can give information on risk of long-term health problems.
- Discuss with the child and family.

Consider intervention or assessment

- Consider tailored clinical intervention if BMI at 91st centile or above.
- Consider assessing for comorbidities if BMI at 98th centile or above.

Assess lifestyle, comorbidities and willingness to change, including:

- presenting symptoms and underlying causes of overweight or obesity
- willingness and motivation to change
- comorbidities (such as hypertension, hyperinsulinaemia, dyslipidaemia, type 2 diabetes, psychosocial dysfunction and exacerbation of asthma) and risk factors
- psychosocial distress such as low self-esteem, teasing and bullying
- family history of overweight and obesity and comorbidities
- lifestyle – diet and physical activity
- environmental, social and family factors that may contribute to overweight and obesity and the success of treatment
- growth and pubertal status.

Source: Reproduced from National Institute for Health and Clinical Excellence, 2006⁶

The Department of Health,¹²⁰ the Royal College of Paediatrics and Child Health (RCPCH) and the National Obesity Forum (NOF)¹²² provide similar recommendations for assessing childhood overweight and obesity.



Tool E1 provides further information on NICE and Department of Health guidance for assessing and managing overweight and obesity in a clinical setting.

Recording of children's data

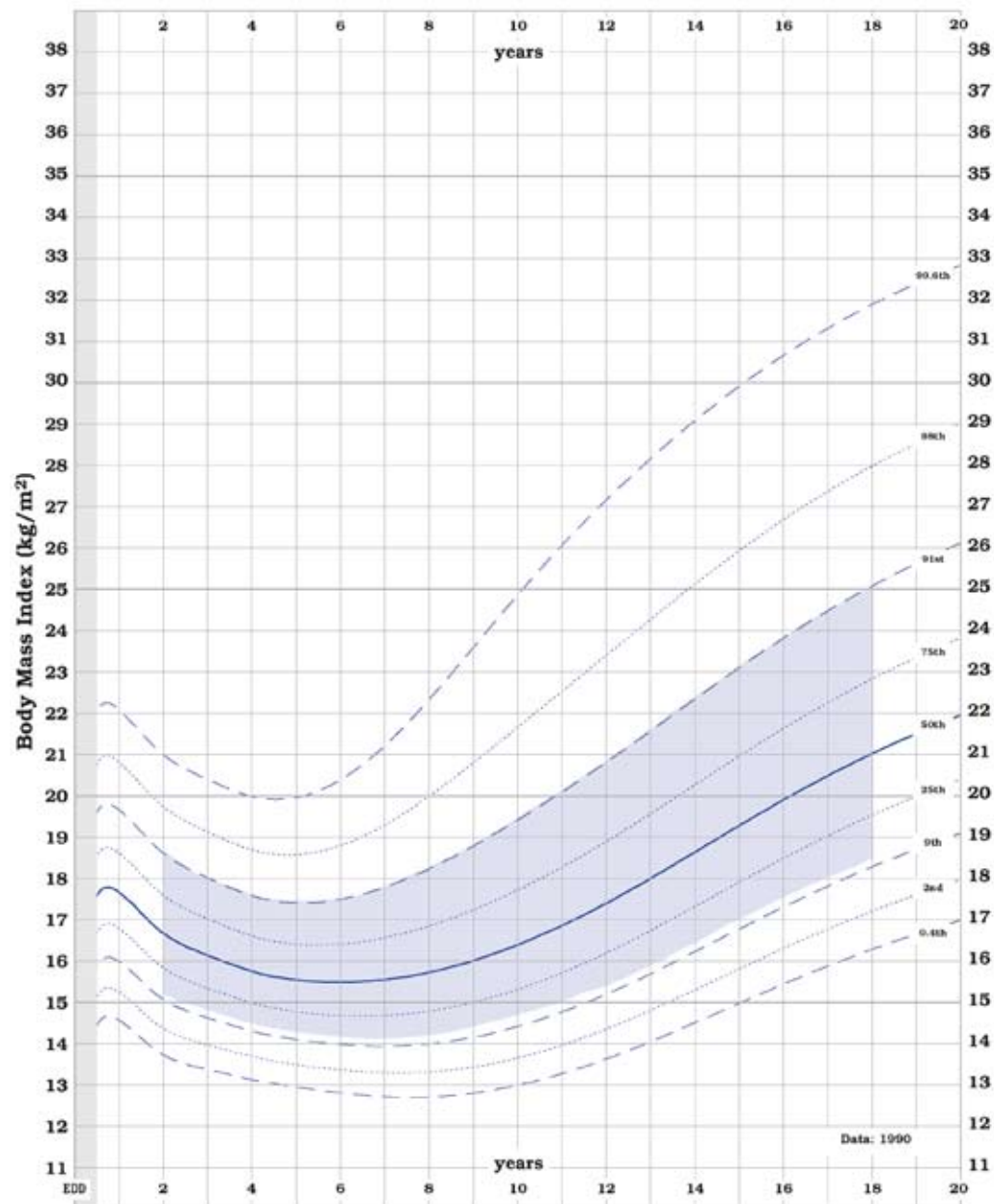
The Department of Health and the Department for Children, Schools and Families have developed guidance for PCTs and schools on how to measure the height and weight of children.^{139, 140} All children in Reception (4-5 year olds) and Year 6 (10-11 year olds) should be measured on an annual basis as part of the National Child Measurement Programme (NCMP). The guidance is available at www.dh.gov.uk/healthyliving



See also **Tool E9** for more information about the NCMP.

Centile BMI charts – CHILDREN

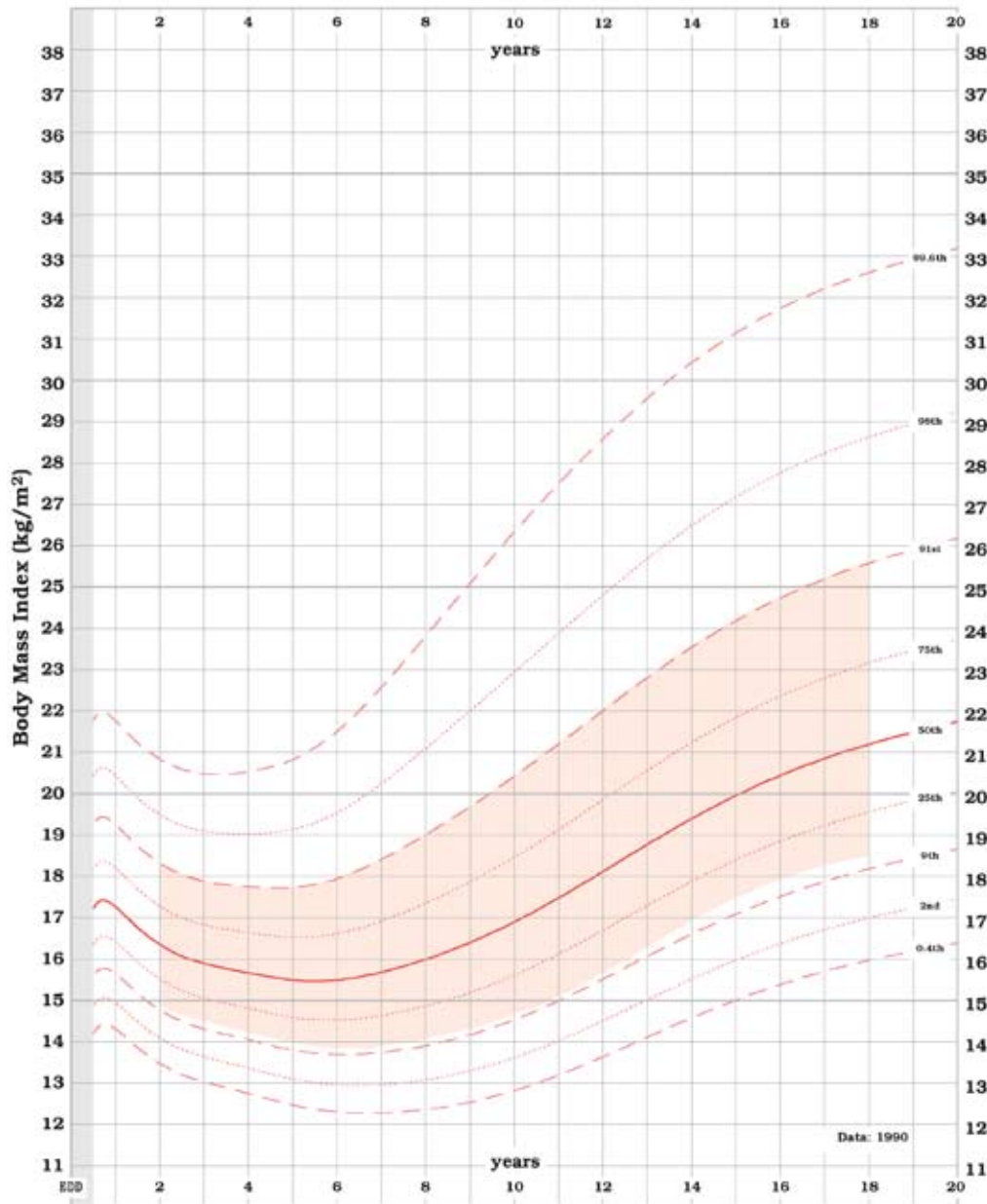
Boys BMI chart – Identification^{213, 216}



Note: This chart is based on the UK population, **not** the IOTF populations.

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Girls BMI chart – Identification^{213, 216}



Note: This chart is based on the UK population, **not** the IOTF populations.

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TOOL E5 Raising the issue of weight – Department of Health advice

TOOL
E5

For:	Healthcare professionals, particularly in primary care
About:	This tool contains guidance for health professionals on raising the issue of weight with patients, produced by the Department of Health.
Purpose:	To provide guidance on how healthcare professionals can raise the issue of weight with patients.
Use:	To be used as a concise and handy tool when in consultation with an overweight or obese patient.
Resource:	<p>These items are contained in a Department of Health publication called <i>Care pathway for the management of overweight and obesity</i>¹²⁰ (see Tool E1). They are also available as separate laminated posters.</p> <p>To access these materials, visit www.dh.gov.uk or order copies from:</p> <p>DH Publications Orderline PO Box 777 London SE1 6XH Email: dh@prolog.uk.com Tel: 0300 123 1002 Fax: 01623 724 524 Minicom: 0300 123 1003 (8am to 6pm, Monday to Friday)</p>



Raising the Issue of Weight in Adults



1 RAISE THE ISSUE OF WEIGHT

If BMI is ≥ 25 and there are no contraindications to raising the issue of weight, initiate a dialogue: 'We have your weight and height measurements here. We can look at whether you are overweight. Can we have a chat about this?'

2 IS THE PATIENT OVERWEIGHT/OBESE?

BMI (kg/m ²)	Weight classification
<18.5	Underweight
18.5–24.9	Healthy weight
≥ 25 –29.9	Overweight
≥ 30	Obese

Using the patient's current weight and height measurements, plot their BMI with them and use this to tell them what category of weight status they are.

'We use a measure called BMI to assess whether people are the right weight for their height. Using your measurements, we can see that your BMI is in the [overweight or obese] category [show the patient where they lie on a BMI chart]. When weight goes into the [overweight or obese] category, this can seriously affect your health.'

WAIST CIRCUMFERENCE	
Increased disease risk	
Men	Women
≥ 40 inches (≥ 102 cm)	≥ 35 inches (≥ 88 cm)
Asian men	Asian women
≥ 90 cm	≥ 80 cm

Waist circumference can be used in cases where BMI, in isolation, may be inappropriate (eg in some ethnic groups) and to give feedback on central adiposity. In Asians, it is estimated that there is increased disease risk at ≥ 90 cm for males and ≥ 80 cm for females.

Measure midway between the lowest rib and the top of the right iliac crest. The tape measure should sit snugly around the waist but not compress the skin.

3 EXPLAIN WHY EXCESS WEIGHT COULD BE A PROBLEM

If patient has a BMI ≥ 25 and obesity-related condition(s):

'Your weight is likely to be affecting your [co-morbidity/condition]. The extra weight is also putting you at greater risk of diabetes, heart disease and cancer.'

If patient has BMI ≥ 30 and no co-morbidities:

'Your weight is likely to affect your health in the future. You will be at greater risk of developing diabetes, heart disease and cancer.'

If patient has BMI ≥ 25 and no co-morbidities:

'Any increase in weight is likely to affect your health in the future.'

4 EXPLAIN THAT FURTHER WEIGHT GAIN IS UNDESIRABLE

'It will be good for your health if you do not put on any more weight. Gaining more weight will put your health at greater risk.'

5 MAKE PATIENT AWARE OF THE BENEFITS OF MODEST WEIGHT/WAIST LOSS

'Losing 5–10% of weight [calculate this for the patient in kilos or pounds] at a rate of around 1–2lb (0.5–1kg) per week should improve your health. This could be your initial goal.'

If patient has co-morbidities:

'Losing weight will also improve your [co-morbidity].'

Note that reductions in waist circumference can lower disease risk. This may be a more sensitive measure of lifestyle change than BMI.

6 AGREE NEXT STEPS

Provide patient literature and:

- If **overweight without co-morbidities**: agree to monitor weight.
- If **obese or overweight with co-morbidities**: arrange follow-up consultation.
- If **severely obese with co-morbidities**: consider referral to secondary care.
- If **patient is not ready to lose weight**: agree to raise the issue again (eg in six months).

BACKGROUND INFORMATION

Raising the issue of weight

Many people are unaware of the extent of their weight problem. Around 30% of men and 10% of women who are overweight believe themselves to be a healthy weight.¹ There is evidence that people become more motivated to lose weight if advised to do so by a health professional.²

Health consequences of excess weight

The table below summarises the health risks of being overweight or obese.³ In addition, obesity is estimated to reduce life expectancy by between 3 and 14 years. Many patients will be unaware of the impact of weight on health.

Greatly increased risk

- type 2 diabetes
- gall bladder disease
- dyslipidaemia
- insulin resistance
- breathlessness
- sleep apnoea

Moderately increased risk

- cardiovascular disease
- hypertension
- osteoarthritis (knees)
- hyperuricaemia and gout

Slightly increased risk

- some cancers (colon, prostate, post-menopausal breast and endometrial)
- reproductive hormone abnormalities
- polycystic ovary syndrome
- impaired fertility
- low back pain
- anaesthetic complications

Benefits of modest weight loss⁴

Patients may be unaware that a small amount of weight loss can improve their health.

Condition	Health benefits of modest (10%) weight loss
Mortality	<ul style="list-style-type: none"> • 20–25% fall in overall mortality • 30–40% fall in diabetes-related deaths • 40–50% fall in obesity-related cancer deaths
Diabetes	<ul style="list-style-type: none"> • up to a 50% fall in fasting blood glucose • over 50% reduction in risk of developing diabetes
Lipids	<ul style="list-style-type: none"> • 10% fall in total cholesterol, 15% in LDL, and 30% in TG, 8% increase in HDL
Blood pressure	<ul style="list-style-type: none"> • 10 mmHg fall in diastolic and systolic pressures

Realistic goals for modest weight/waist loss (adapted from Australian guidelines)⁵

Duration	Weight change	Waist circumference change
Short term	2–4kg a month	1–2cm a month
Medium term	5–10% of initial weight	5% after six weeks
Long term	10–20% of initial weight	aim to be <88cm (females) aim to be <102cm (males)

Patients may have unrealistic weight loss goals.

The need to offer support for behaviour change

The success of smoking cessation interventions shows that, in addition to raising a health issue, health professionals need to offer practical advice and support. Rollnick et al suggest some ways to do this within the primary care setting. Providing a list of available options in the local area may also be helpful.⁶

Importance of continued monitoring of weight

Weight monitoring can be a helpful way of maintaining motivation to lose weight. Patients should be encouraged to monitor their weight regularly.⁷ Interventions for smoking cessation have found that behaviour change is more successful when follow-ups are included in the programme.⁸

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Produced by CDI for the Department of Health. First published April 2006

¹Wardle J and Johnson F (2002) Weight and dieting: examining levels of weight concern in British adults. *Int J Obes* 26: 1144–9.

²Galuska DA et al (1999) Are health care professionals advising obese patients to lose weight? *JAMA* 282: 1576–8.

³Jebb S and Steer T (2003) Tackling the Weight of the Nation. Medical Research Council.

⁴Department of Health (2002) Prodigy Guidance on Obesity. Crown Copyright.

⁵NHMRC (2003) Clinical practice guidelines for the management of overweight and obesity in adults. Commonwealth of Australia.

⁶Rollnick S et al (2005) Consultations about changing behaviour. *BMJ* 331: 961–3.

⁷O'Neil PM and Brown JD (2005) Weighing the evidence: Benefits of regular weight monitoring for weight control. *J Nutr Educ Behav* 37: 319–22.

⁸Lancaster T and Stead LF (2004) Physician advice for smoking cessation. *Cochrane Database of Systematic Reviews*, 4.



Raising the Issue of Weight in Children and Young People

1 WHEN TO INITIATE A DISCUSSION ABOUT WEIGHT

- If the family expresses concern about the child's weight.
- If the child has weight-related co-morbidities.
- If the child is visibly overweight.

2 RAISE THE ISSUE OF OVERWEIGHT

Discuss the child's weight in a sensitive manner because parents may be unaware that their child is overweight. Use the term 'overweight' rather than 'obese'. Let the maturity of the child and the child's and parents' wishes determine the level of child involvement.

If a parent is concerned about the child's weight: 'We have [child's] measurements so we can see if he/she is overweight for his/her age.'

If the child is visibly overweight: 'I see more children nowadays who are a little overweight. Could we check [child's] weight?'

If the child presents with co-morbidities: 'Sometimes [co-morbidity] is related to weight. I think that we should check [child's] weight.'

3 ASSESS THE CHILD'S WEIGHT STATUS

Refer to UK Child Growth Charts and plot BMI centile. Explain BMI to parent: eg 'We use a measure called BMI to look at children's weight. Looking at [child's] measurements, his/her BMI does seem to be somewhat higher than we would like it to be.'

If the child's weight status is in dispute, consider plotting their BMI on the centile chart in front of them. In some cases this approach may be inappropriate and upsetting for the family.

Overweight	Severely overweight
BMI centile ≥85th centile	BMI centile ≥95th centile

4 ASSESS SERIOUSNESS OF OVERWEIGHT PROBLEM AND DISCUSS WITH PARENT

If child is severely overweight with co-morbidities, consider raising the possibility that their weight may affect their health now or in the future.

This could be left for follow-up discussions or raised without the child present as some parents may feel it is distressing for their child to hear. 'If their overweight continues into adult life, it could affect their health. Have either you [or child] been concerned about his/her weight?' Consider discussing these points with the parent at follow-up:

- **Age and pubertal stage:** the older the child and the further advanced into puberty, the more likely overweight will persist into adulthood.
- **Parental weight status:** if parents are obese, child's overweight is more likely to persist into adulthood.
- **Co-morbidities:** (see overleaf) increase the seriousness of the weight problem

5 REASSURE THE PARENT/CHILD

If this is the first time that weight has been raised with the family, it is important to make the interaction as supportive as possible:

'Together, if you would like to, we can do something about your child's weight. By taking action now, we have the chance to improve [child's] health in the future.'

6 AGREE NEXT STEPS

Provide patient information literature, discuss as appropriate and:

- **If overweight and no immediate action necessary:** arrange follow-up appointment to monitor weight in three to six months: 'It might be useful for us to keep an eye on [child's] weight for the next year.'
- **If overweight and family want to take action:** offer appointment for discussion with GP, nurse or other health professional; arrange three-to-six-month follow-up to monitor weight.
- **If overweight and family do not wish to take action now:** monitor child's weight and raise again in six months to a year.
- **If overweight with co-morbidities:** consider referral to secondary care: 'It might be useful for you and [child] to talk to someone about it.'

BACKGROUND INFORMATION

Identifying the problem

Ascertaining a child's weight status is an important first step in childhood weight management. Parents who do not recognise the weight status of their overweight children may be less likely to provide them with support to achieve a healthy weight. In a British survey of parental perception of their child's weight, the overwhelming majority (94%) of parents with overweight or obese children misclassified their child's weight status.¹ Given this low level of parental awareness, health professionals should take care to establish a child's weight status in a sensitive manner.

Assessing weight status in children

The child growth charts for the UK allow easy calculation of BMI based on a child's known weight and height.² Measures of body fat in children can also be a useful way of assessing a child's weight status. Details of body fat reference curves for children are now available,³ although, in practice, body fat cannot be assessed without the necessary equipment.

Assessing the severity of the problem

A number of factors are known to increase the risk of childhood obesity and the likelihood that a weight problem will persist into adult life. Considering these factors will help you to make an informed decision about the most appropriate mode of action.

- The older the child, the more likely it is that their weight problem will continue into later life and the less time they have to 'grow into' their excess weight.
- A child is 20–40% more likely to become obese if one parent is obese. The figure rises to around 80% if both parents are obese.
- While weight problems can lead to psychosocial issues such as depression and low self-esteem, weight loss may not necessarily resolve these problems, so don't rule out referral to CAMHS.

Health risks of excess weight in childhood^{4,5}

Being obese in childhood or adolescence increases the risk of obesity in adult life. Childhood obesity will also increase the chances of developing chronic diseases typically associated with adult obesity:

- insulin resistance and type 2 diabetes;
- breathing problems such as sleep apnoea and asthma;
- psychosocial morbidity;
- impaired fertility;
- cardiovascular disease;
- dyslipidaemia;
- hypertension;
- some cancers;
- orthopaedic complications.

Importance of weight control

For many overweight children, prevention of further weight gain is the main goal because as long as they gain no more weight, they can 'grow into' their weight over time. This goal can be achieved through lifestyle changes:

- improving the diet, eg by increasing fruit and vegetable consumption, reducing fat intake and portion sizes, considering intake of sugary drinks, and planning meals;
 - increasing activity, eg playing football, walking the dog;
 - reducing sedentary behaviours such as time spent watching TV or playing computer games.
- If the child is more severely overweight, or has already reached adolescence, 'growing into' weight is more difficult and weight loss has to be considered.

Need to offer solutions

Unless the child is severely overweight with co-morbidities, be led by the parents' and/or child's wishes. Encourage action if appropriate. Health professionals should be ready to offer referral support so that they are seen as taking the issue seriously. If the child is very overweight and has co-morbidities, the child (and family) may require on-going support despite referrals, eg through continued weight monitoring, additional specialist referrals, or help with family-based lifestyle modification.

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Produced by COI for the Department of Health. First published April 2006

Children and young people
Laminated card²²¹ – available from Department of Health Publications (see page 217)

¹Carnell S et al (2005) Parental perceptions of overweight in 3–5 year olds. *Int J Obes* 29: 353–5.

²Cole T et al (2002) A chart to link child centiles of body mass index, weight and height. *Eur J Clin Nutr* 56: 1194–9.

³Jebb S et al (2004) New body fat reference curves for children. *Obes Rev* (NAASO Suppl) A156.

⁴McCallum Z and Gerner B (2005) Weighty matters: An approach to childhood overweight in general practice. *Aus Fam Phys* 34(9): 745–8.

⁵British Medical Association Board of Science (2005) *Preventing Childhood Obesity*. BMA.



TOOL E6 Raising the issue of weight – perceptions of overweight healthcare professionals and overweight people

TOOL
E6

For:	Healthcare professionals, particularly those who are overweight
About:	This tool provides the results of research undertaken to investigate the experiences and beliefs of overweight healthcare providers who provide weight management advice, and the views and perception of information of patients receiving weight-related information from overweight healthcare practitioners.
Purpose:	To provide an understanding of the perceptions of overweight healthcare professionals and overweight people.
Use:	Overweight healthcare professionals can use this tool to help them raise the issue of weight with overweight patients.
Resource:	<i>Overweight health professionals giving weight management advice: The perceptions of health professionals and overweight people²²²</i>

Like the population as a whole, some healthcare professionals are overweight or obese. Anecdotally, it is known that these health practitioners can find it difficult to give advice to overweight patients. Research was therefore commissioned to look at the attitudes of overweight healthcare professionals and overweight patients. The results are not conclusive and more research is required to provide overweight practitioners with guidance on how to raise the issue of weight with their patients, but the research contains some messages that are worth consideration by health professionals.

Perceptions of overweight healthcare professionals

Credibility and professionalism

- Overall, **most health professionals felt their expertise and empathetic manner were most important to their credibility**. Although some acknowledged that their weight may affect how their patients view them, many thought that being overweight or 'not skinny' would have a positive effect in building a relationship with overweight patients.

"I often discuss whether I can be taken credibly in my role (dietitian) given that I myself am obese."

"Despite being overweight as a practitioner you still have valid expert advice on weight management. However, patients may feel that it is not such valid advice if you cannot follow it yourself!"
- Interestingly, nearly all health professionals thought that overweight and particularly obese colleagues were less credible than they perceived themselves to be:

"The trainer was morbidly obese and although clearly technically competent, his physical appearance was distracting and caused me to question his validity as a trainer. There is no rational thought behind this perception, but clearly this has been instilled into my psyche by the continuous cultural and media-driven accepted norms."

- Some health professionals thought that being overweight – and particularly being obese – would hinder the credibility and professional reputation of a health professional.
“How can a health professional who does not value a healthy weight help other people?”

“I remember a dietitian who was very overweight and thinking, ‘How can she give advice?’”

Underplaying the significance of personal weight

Although all health professionals who participated in the research self-selected themselves as an ‘overweight health professional’ defined as having a BMI of over 25kg/m², and many reported weights and heights indicating a BMI well over 30kg/m², several viewed themselves or thought they were perceived as a healthy weight.

“..... although my BMI is 34, I don’t necessarily look that big because of my age and height; I’m just sturdy.”

Reflexivity

Interviewees found it difficult to answer a question about what effect their own weight might have on whether the subject of weight is discussed. This was not something they had thought of before:

“It’s not something I have really thought about until now.”

“It’s impossible to know if my weight has any effect. I mean, how would we ever know and how could you measure that?”

Perceived advantages of overweight health professionals

Health professionals thought that sharing personal experience of weight management helped them to be more empathetic and build rapport with their patients. As a result, some said they referred to their own weight or used personal examples of behaviour change.

“I can relate to them. I gained five stone in a year so normally I would not have had an issue with my weight and now I have a huge issue with my weight. I can say ‘I understand what you are going through.’”

Mentioning health professionals’ own weight during consultations

- Most health professionals (70%) said that they mentioned their own weight and lifestyle in consultations. This was often used to demonstrate strategies to change eating behaviour and increase physical activity. Those who mentioned their weight felt that it helped them to empathise with patients.

“I have found the patients I do mention it [weight] to are more likely to be open and honest with me.”

“A patient has said that they would much rather be seen by someone who wasn’t skinny so would have an understanding of how difficult it is.”

- A small proportion of the sample said they would not mention their own weight. Participants in this group were generally against the idea of using personal references in the consultations. A few referred to the notion of talking about their own weight as unprofessional and not patient-centred.

“No – I work in a patient-centred way and use the skill of immediacy to direct the conversation back to the person.”

“No, I don’t mention my weight as it’s a patient-centred consultation.”

- So they viewed reference to their own weight as shifting the focus away from being patient-centred to health-professional centred. This was a dominant theme among those who did not mention their weight.

Impact of health professionals’ own weight on raising weight as an issue

Some health professionals said their own weight made it less likely or more difficult to discuss weight loss with patients:

“It does hinder me. How can I provide advice if I am clearly struggling to follow my own advice?”

“I do feel uncomfortable about discussing weight management because I am overweight. I think I may be more likely to discuss weight opportunistically if I was not overweight myself.”

Perceptions of overweight healthcare professionals by overweight people

Value of advice from an overweight healthcare professional

Some people thought that seeing an overweight healthcare professional was helpful. The main benefits were thought to be greater empathy and insight from the healthcare professional and a feeling of trust:

“She was sensitive and understanding and very encouraging. She acknowledged her weight and said if it was easy to lose weight, she’d be a size zero! She was funny and I felt understood and not demeaned in any way.”

Mentioning healthcare professionals’ own weight

It was felt there was a need for overweight professionals to mention their own weight, particularly as it could be distracting otherwise. People also wanted to hear personal weight loss ‘tips’, yet this is likely to be problematic because it moves the discussion away from a patient-centred, evidence-based approach.

However, there were some problems associated with healthcare professionals who had lost weight, with them being:

“... like a reformed smoker.”

“They hate fat and forget how hard it is.”

Negative perceptions

- There was a strong reaction among overweight people that advice from an overweight health professional, particularly those who were not empathetic, was hypocritical and uninspiring, with respondents questioning the validity of the advice:

“They can only give text book advice and it’s slightly hypocritical.”

“They should practise what they preach.”

"I was relieved to find an overweight doctor – I thought that she would understand the problems and how difficult it is to address the issues but ... she was very dismissive and quite patronising. I went into the surgery feeling low and came out feeling guilty and thought I was a total waste of her valuable time as I wasn't ill in the conventional sense. After that, I tended to avoid the doctor. Even though it was a few years ago now, it still affects the way I feel and act at the doctor's."

- Several participants raised the issue of the stigma around health professionals being overweight. This attitude demonstrates the crucial need for reflexivity in weight management practice. In some instances, health professionals who were overweight were perceived as more judgemental, with patients suggesting that health professionals take out their own weight issues on patients or that they are self-conscious about being overweight.
- There was some hostility towards overweight health professionals because of their weight, demonstrating how pervasive weight bias can be.



TOOL E7 Leaflets and booklets for patients

**TOOL
E7**

For:	All healthcare professionals in contact with patients, eg GPs, nurses, pharmacists, psychologists, dentists, health visitors
About:	This tool provides details of leaflets and booklets that have been produced for patients who are worried about being overweight or obese or who are overweight or obese. The leaflets provide details on healthy lifestyles, losing weight, treatment and maintaining a healthy weight.
Purpose:	To provide healthcare professionals with details of leaflets that can be ordered to offer to patients.
Use:	Healthcare professionals should order these leaflets for their workplace and make them available to patients who are either worried about excess weight or who are overweight or obese.
Resource:	www.nice.org.uk , www.dh.gov.uk , bhf.org.uk/publications

The leaflets and booklets for patients listed on the next page have been produced by the National Institute for Health and Clinical Excellence (NICE), the Department of Health and the British Heart Foundation.

How to order

NICE publications	Department of Health Publications	British Heart Foundation publications
Available from www.nice.org.uk	Visit www.dh.gov.uk or order a copy by contacting: DH Publications Orderline PO Box 777 London SE1 6XH Email: dh@prolog.uk.com Tel: 0300 123 1002 Fax: 01623 724 524 Minicom: 0300 123 1003 (8am to 6pm, Monday to Friday)	BHF Orderline: 0870 600 6566 email: orderline@bhf.org.uk , website: bhf.org.uk/publications

General lifestyle advice

From NICE

NICE has produced an information booklet for patients. (See page 225 for details of how to obtain copies.)

*Understanding NICE guidance – Preventing obesity and staying a healthy weight*²²³

This booklet is about the prevention of obesity and staying a healthy weight, for people in England and Wales. It explains the NICE guidance for health professionals, local authorities, schools, early years providers, employers and the public. It is written for people who want to know how to maintain a healthy weight, but it may also be useful for their families, carers or anyone else with an interest in obesity.

Advice for overweight and obese patients

From the Department of Health

The Department of Health has published a number of leaflets for patients who are overweight or obese. The leaflets provide advice on losing weight and the health risks associated with excess weight. (See page 225 for details of how to order copies.)

*Why weight matters*²²⁴

A leaflet for overweight patients who are not yet committed to losing weight. It discusses the risks associated with overweight, the benefits of modest weight loss, and practical tips for people to consider.

*Your weight, your health: How to take control of your weight*²²⁵

A booklet for overweight patients who are ready to think about losing weight.

*Healthy Weight, Healthy Lives: Why your child's weight matters*²²⁶

The leaflet provides information for parents about the National Child Measurement Programme (NCMP). It also includes practical tips on how to help children eat well and become more active, why maintaining a healthy weight is important, and steps that parents can take to help their family lead a healthy lifestyle.

From NICE

*Understanding NICE guidance – Treatment for people who are overweight or obese*²²⁷

This booklet is about the NHS care and treatment in England and Wales available for people who are overweight or obese. It explains the guidance from NICE. It is written for people who may need help with their weight problems but it may also be useful for their families or carers or anyone with an interest in obesity. (See page 225 for details of how to order copies.)

From the British Heart Foundation

*So you want to lose weight ... for good*²²⁸

This is a guide for men and women who would like to lose weight. It provides guidance on food portion sizes for weight loss. (See page 225 for details of how to order copies.)



TOOL E8 FAQs on childhood obesity

TOOL
E8

For:	Healthcare professionals, particularly in primary care
About:	This tool provides suggested responses to frequently asked questions regarding childhood obesity. It includes only a selected number of questions. For more information go to www.nhs.uk
Purpose:	To provide healthcare professionals with a concise and handy tool that they can use to answer queries about childhood obesity.
Use:	To be used as a quick method of answering queries from parents/patients worried about their child being overweight or obese.
Resource:	NHS Choices website www.nhs.uk

Recognising obesity

Why have I been told my child is overweight/obese? My child does not look overweight or obese.

Today, many more of us – adults and children – are above the weight that we should be to remain healthy and happy. There are many reasons for this. However, one result of the fact that we as a society are getting larger is that we have lost sight of what a healthy weight actually *looks* like, because we are now used to seeing larger people and we compare ourselves and our children to others around us.

Another result of us getting larger is that there has been a great deal of media attention relating to obesity which has tended to focus on some of the most extreme cases of obesity in the world, rather than the ‘everyday’ weight problems that we and our children are facing, and this has distorted our thinking.

Because of the above, it is sometimes difficult for us to recognise weight concerns, particularly in our own children. However, weight can become a huge problem for children in terms of their physical and emotional health. If your child is overweight or obese, the best thing to do for them is to be open to the fact that they will need your support in changing behaviour to achieve a healthy weight now and for their future.

Causes of childhood obesity

Are genes the main cause of obesity?

No. Some people may have a genetic predisposition towards obesity, but the reality is that many, many more of us are overweight or obese than used to be the case – and our genes haven’t changed. Even those who do have a genetic predisposition to obesity will not definitely become and remain overweight or obese. We should never give up trying to adopt and maintain the lifestyles that will help us and our children achieve a healthy weight.

Why are some children obese or overweight?

At its simplest level, children (and adults) can become overweight or obese because, over a period of time, they move about too little and eat too much. Eating ‘too much’ can mean having portions that are too big, snacking too much, or having too much of the food (and drink) that is

high in calories. As a society, many of us are eating more than we should. High-energy food is readily available. Most of us are also far less active than we used to be – we tend to drive everywhere rather than walk, and stay inside more. Because of this, lots and lots of us – adults and children – are now overweight or obese. Maintaining a healthy weight is a lot harder than it used to be.

Weight problems can begin at a very early age and it is important that we don't ignore this, as this is just storing up health problems for the future. Children with weight problems can develop very low self-esteem and become depressed. One research study showed that the quality of life of young children who were obese was similar to that of children living with cancer. We need to be doing everything we can to stop children developing weight problems in the first place, and helping them adopt healthier lifestyles to reduce their weight if they do become overweight.

Tackling childhood obesity

What can I do to help my child be more physically active?

To be healthy, children need to do at least one hour of physical activity every day. Children who are overweight need to do more than this. An hour's activity every day may sound difficult to achieve. One of the best ways to ensure regular activity is to build this into the school day, by encouraging your child to cycle or walk at least part of the way to school each day or most days of the week. Joining in with them is a great way of sharing quality time with them and keeping fit yourself. Other ways are devoting some regular time to family activities at evenings and weekends and limiting the amount of time that children are allowed to spend in front of the TV or computer – children who spend the most time in front of the TV tend to be those who are most overweight.

My child isn't the sporty type and won't take part in anything sporty.

Not all children enjoy taking part in traditional sports and this can particularly be the case for those who are conscious of their weight. The most important thing is to find activities that your child finds fun. This doesn't have to be football or netball. Any activity that gets a child slightly out of breath counts – for example, walking at a good pace, playing with pets or dancing.

It's also important to realise that the one hour of physical activity a day that is recommended for children (and the 30 minutes most days for adults) does not need to be continuous. It can be made up of short bursts of activity that add up to 60 minutes, for example, two 15-minute walks to and from school a day, and 30 minutes of activity in the park in the evening for a child, or for an adult, 15 minutes playing with your child and 15 minutes doing housework.

My child constantly snacks on crisps, chocolates and fizzy drinks. How do I stop him/her?

There is room within a healthy balanced diet for your child to enjoy the occasional unhealthy snack. When these foods are forming part of the everyday diet it is time to try some changes. Most of us would benefit from reducing the amount of salt, sugar and saturated fat in our diets, so try to gradually replace foods high in these with healthier options – for example, water instead of fizzy drinks on most days, or fruit instead of chocolate and crisps for snacking. The best thing to do is introduce your child gradually to a range of different, healthier meals and snacks and persist – it can take children a long time to get used to tastes that are unfamiliar.

Does junk food during pregnancy give children a sweet tooth?

There is a possible relationship between food consumed by the mother during pregnancy and the subsequent tastes of her children, although this has not yet been proven conclusively. However, it is very important for pregnant women to take good care of themselves by eating a balanced diet.

Are working mothers to blame for childhood obesity?

One large study in the UK found that children were more likely to be overweight at birth if their mother worked, particularly if they worked long hours. This does not mean mothers are to blame for obesity. Few of us in today's society are in a position where a parent is able or willing to remain in the home. However, clearly society has changed and with long working hours, it is now much harder for families to find time to cook and be active.

Are children who don't get enough sleep more likely to be obese when they grow up?

Some studies have found a relationship between sleep problems in childhood and weight in adulthood. However, there is no clear evidence to show that the two are directly related.

Obesity and pregnancy

I am struggling to get pregnant. I have also been told I am obese. Are the two related?

If your Body Mass Index (BMI – the measure used to calculate weight status) is over 29, this may make it less likely that you will become pregnant, and the greater your BMI, the lower the likelihood of pregnancy. There are other reasons for having problems conceiving (including BMI of the man). If you are having problems, ask your doctor for advice. Your doctor may refer you to an appropriate specialist.

I am pregnant and have been told I am obese and need to do something about it. Why does this matter? I want to give my baby the best start in life and am eating for two.

There are many reasons for maintaining a healthy weight at all stages of life, including during pregnancy. Women who are obese while pregnant have a higher risk of having an infant with spina bifida, heart defects, smaller arms and legs than average, hernia in the diaphragm and other birth defects. These links are not yet fully understood, and may be due to undiagnosed diabetes.



TOOL E9 The National Child Measurement Programme (NCMP)

TOOL
E9

For:	Healthcare professionals who may be involved in the National Child Measurement Programme (NCMP)
About:	This tool briefly outlines the purpose of the NCMP and includes FAQs from parents about the NCMP.
Purpose:	To give healthcare professionals background information on the NCMP and to provide answers to questions that may be raised by parents of children involved in the NCMP.
Use:	To be used if parents have a query about the NCMP.
Resource:	Information – guidance and resources – on the NCMP can be found at www.dh.gov.uk/healthyliving

Purpose of the NCMP

The NCMP is one part of the programme of work to implement the *Healthy Weight, Healthy Lives* strategy, and is overseen by the Cross-Government Obesity Unit (Department of Health and the Department for Children, Schools and Families). Every year children in Reception Year and Year 6 are weighed and measured during the school year as part of this programme. The primary purpose of the NCMP is to:

- help local areas to understand the prevalence of child obesity in their area, and help inform local planning and delivery of services for children
- gather population-level surveillance data to allow analysis of trends in growth patterns and obesity, and
- enable PCTs and local authorities to use the data from the NCMP to set local goals as part of the NHS Operating Framework vital signs and their LAA National Indicator Set, agree them with strategic health authorities and government offices, and then monitor performance.

The programme also increases public and professional understanding of weight issues in children, and engages parents and families in healthy lifestyles and weight issues, through the provision (whether routinely or by request) of the results and additional information to parents.

FAQs from parents

Q: Why is my child being weighed and measured?

A: The NHS wants to know how healthy children in England are. Recording the heights and weights of children in Reception and Year 6 helps them to work this out, so that they can decide what more they need to do to help children be healthier and live healthier lives.

Q: Will my child's height or weight be shown to other people?

A: No. Only the person weighing your child will see their height or weight. They will write it down secretly and it will be kept confidential. Nobody will be shown your child's weight, except you. Your primary care trust could automatically contact you about your child's weight, but if you do not hear from them, you can ask your primary care trust for the results.

Q: Will my child's friends know what my child's height and weight are?

A: No, your child's friends and classmates will not be told and will not see what your child weighs or how tall they are.

Q: Will my child have to take their clothes off?

A: No. Your child will remain fully clothed at all times, but they will be asked to take off their shoes. If your child is wearing heavy outdoor clothing, such as a coat or a thick jumper, they will be asked to take this off too.

Q: Will other people see my child being weighed and measured?

A: Your child will be weighed and measured away from other people. When it is your child's turn, they will be called into the room or the screened-off area. The only people in this area will be your child and the person weighing them, although they can take a friend in with them if they prefer.

Q: What happens during the process?

A: Your child will be called into the private area where the weighing and measuring will take place. The person will measure your child's height using a special height measure (like a big ruler). They will also record their weight by asking them to stand on a set of scales. They will then write your child's height and weight down and keep it confidential. That is all there is to it.

Q: What happens after my child has been weighed?

A: After all the children in the class have been weighed, the person running the exercise will take all the results back to the primary care trust. They will then input the results onto a computer and send the results off to a place (the NHS Information Centre) where people collect the heights and weights of all the children in the country who have been weighed. Your child's name won't be sent, so no-one will be able to find their results from this. This will happen for each school in England. The NHS will then look at all the measurements, so they can plan how to help children be healthier.

Q: How can I find out the results?

A: Your PCT could automatically contact you about your child's weight, but if they do not, you will be able to find out your child's results by contacting them yourself. The leaflet you are given will also explain more about the weighing and measuring process, and will provide you with some simple tips on how the whole family can get active and eat healthy meals.

Q: Will my child have to go on a special diet or exercise programme after the weigh-in?

A: All children should be encouraged to eat healthy food and be physically active. Remember, only you will know the results. If the results suggest that your child's weight is possibly unhealthy, you and your child may choose to make some changes as a family – such as eating more healthily and being more physically active. But the school will not be putting your child on a 'diet' or make your child change the way they eat.

Q: Is there someone my child can talk to if they are worried about their weight?

A: Yes. Your child can talk to their school nurse or the person who is weighing them. They can talk to them about their concerns and can suggest where they can go for further help, if it is needed. You will be able to get a copy of a leaflet which includes some simple tips on how to be healthier.

Note: More guidance will be produced on routinely feeding back NCMP data to parents, and dealing with follow-up requests, in late 2008.