

Assessment

The importance of assessment

A careful and detailed assessment forms the basis of a good weight management programme. All patients will have a different clinical presentation and it is important to unravel specific difficulties in relation to weight control so that treatment can be tailored accordingly. A thorough evaluation should be undertaken with each patient, regardless of how long they have been with the practice.

The primary functions of the assessment stage are:

- To listen to the patient's experience of their weight and to establish rapport
- To elicit the patient's beliefs and understanding about obesity and to gain an understanding of the factors that have led to weight gain
- To gather information that will help to characterise the health risks for the patient
- To gain a picture of current lifestyle habits
- To identify any potential difficulties or barriers to change
- To have the opportunity to discuss the expectations from treatment and to agree a way forward.

A weight management assessment tool should be used to ensure continuity of care across the practice. The assessment does not have to be completed in one visit and can be staged, thus allowing time for the patient to contemplate their readiness for change.

Listening to the patient

Having raised the issue of body weight it is important to work with the patient in a way in which they will feel supported and understood. This requires the practitioner to listen carefully to the patient's description of what being overweight means to them, what they feel has contributed to their obesity and whether they feel ready to begin a treatment

programme. It is likely that many patients will already have had a number of attempts at losing weight and it is important to acknowledge and affirm past efforts.

Establishing understanding about obesity

The patient must be given the opportunity to describe what has led to their weight increase and it is also important to discuss previous weight loss attempts (and their success/failure). Listening to a patient's account of the factors that have contributed to their weight gain will help to establish their understanding and beliefs about obesity

With patients who are convinced that their weight gain is out of their control (e.g. due to perceived genetic or metabolic influences) health professionals should recognise that this needs careful exploration. There is probably little to be gained from trying to openly challenge the patient who is adamant that they eat very little and still seems to gain weight. A more productive approach may be to acknowledge that obesity is a complex condition which has many contributory factors and that by carrying out a thorough assessment a better picture of the changes which would help them to lose weight may be established. Practitioners can also offer information on what is known about genetic influences and how metabolic rate is inevitably increased with obesity in a very neutral manner. People often compare themselves to others e.g. a partner or colleague without taking into account the differences in energy requirements between males and females, or the impact that physical activity has on helping people to maintain a lower body weight. It is only with time and by building trust and rapport that patients may feel more ready to address the causes of their weight gain.

It is also important to establish the patient's understanding of the health risks associated with obesity, even though this may already have been discussed when the issue of body weight was originally raised with the patient. Many people are becoming more aware of the links with diabetes and heart disease but the links with conditions such as cancer, osteoarthritis and, in particular, sleep apnoea may be less well recognised.

The Raising the Issue module provides further guidance on talking to patients about their weight.

Characterising health risks

Classifying the degree of obesity

An important early step in the assessment procedure is to measure the degree of obesity. While more sophisticated measures exist, in clinical practice the most common measurements are of body mass index (BMI) and waist circumference.

BMI

Body mass index is calculated by dividing the weight of an individual in kilograms by the height of that individual in metres squared.

$$\text{BMI} = \frac{\text{Weight (kg)}}{\text{Height (m)}^2}$$

The classifications for obesity are as follows¹:

Classification	BMI (kg/m²)
Normal weight	18.5–24.9
Overweight	≥25
Pre-obese	25–29.9
Obese class 1	30–34.9
Obese class 2	35–39.9
Obese class 3	≥40

There are limitations to the BMI measurement, for example, it does not distinguish between lean and fat tissue in the body.

It is not advisable to rely on self-reported measures of weight and height and it is good practice to include these measurements as part of any general medical assessment.

In measuring body weight it is vital to have a scale that can weigh all patients. Privacy is also very important and every care should be taken to ensure that this philosophy is in

place within the practice. Patients should be asked to remove any outer garments such as coats, cardigans and their shoes, and to empty their pockets before stepping onto the scales. It is important for both patients and practitioners to feel confident in the reliability of body weight measurements and every effort should be made to perform this in a consistent and accurate manner.

To measure height, patients should be asked to stand straight with their back to the stadiometer and with the top of their head touching but not pressing against the rule. The arms should hang relaxed with the feet slightly apart.

Waist circumference

The measurement of waist circumference provides information about the distribution of body fat and is a measure of risk for conditions such as coronary heart disease (CHD). It is now well known that people who carry their excess fat centrally (within the abdominal cavity) are more likely to suffer the consequences of being overweight.^{2,3} Increased waist circumference is also associated with the Metabolic syndrome.

The Metabolic syndrome

The WHO definition for **metabolic syndrome** is:

‘Type 2 diabetes, impaired glucose tolerance or normal glucose tolerance with insulin resistance, together with two or more of the following:

1. Elevated blood pressure
2. Abdominal obesity and/or BMI >30kg/m²
3. Low HDL cholesterol
4. High triglycerides
5. Microalbuminuria

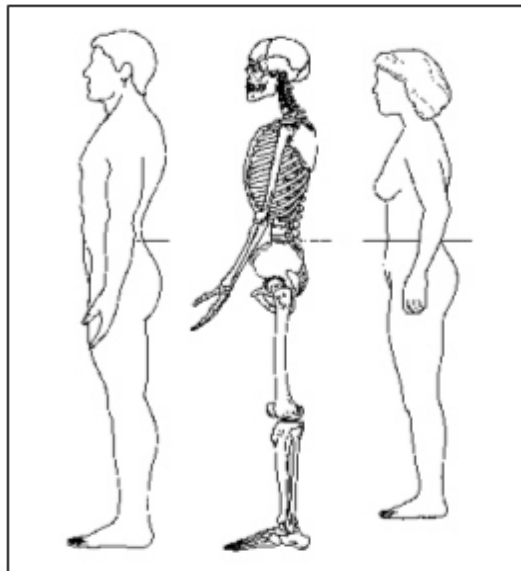
People with metabolic syndrome are at an increased risk of cardiovascular disease equivalent to people with frank type 2 diabetes.

Practitioners are likely to see metabolic syndrome on a frequent basis. It is estimated in America that 47 million people – about 1 in 4 adults (23%) – have metabolic syndrome. The incidence of metabolic syndrome in adults is comparable to that of hypertension (24%).⁴

Goals of treatment for metabolic syndrome have to be avoidance of progression to overt type 2 diabetes and avoidance of premature death due to cardiovascular disease achieved through lifestyle modification and the judicious use of drugs and in extreme cases surgery.

If measuring waist circumference, ensure that a tape of adequate length is available. The correct position for measuring waist circumference is midway between the upper hip bone and the uppermost border of the right iliac crest as shown in Figure 1. The tape should be placed around the abdomen at the level of this midway point and a reading taken when the tape is snug but does not compress the skin. In practice it may be difficult for very overweight patients to accurately palpate those bony landmarks in which case placing the tape at the level of the belly button is recommended.

Figure 1: Measuring tape position for waist circumference



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The waist circumference measurement for men and women at which there is an increased relative risk is defined as follows.⁵

	Increased risk	Substantially increased risk
Men	≥94 cm	≥102 cm
Women	≥80 cm	≥88 cm

In some populations, waist circumference may be a better indicator of risk than BMI e.g. in persons of Asian descent.^{6,7} As mentioned previously, not only is there a physical difficulty in measuring waist circumference in very obese patients but in those with a BMI >35 kg/m², waist circumference has little added predictive power of disease risk.

In patients with a BMI in the region of 25–35 kg/m² incorporating measurements of waist circumference will provide additional information about risk and can be used as an additional measure of progress with weight loss.

Building a picture of risk

Factors that will influence the risk from obesity include:

- Advancing age
- The duration of obesity
- Family history of conditions such as CHD and diabetes
- Existing medical complications
- Smoking
- The level of physical activity

Building a clinical picture of those factors will help to define the overall risk to a patient's health. It may be more constructive to have a questionnaire to gather this type of information. Issues arising from this could then be discussed during the consultation process.

Screening for other diseases

It is well documented that obesity increases the risk of other conditions such as hypertension, hyperlipidaemia, diabetes, skeletal disorders and respiratory disease. In addition, the elimination of other conditions such as hypothyroidism (which can lead to weight gain) is important. A thorough assessment should therefore include the following:

- A random or fasting blood glucose level
- A plasma lipid profile including triglyceride, total cholesterol, HDL and LDL cholesterol levels
- Serum TSH levels
- Measurements of blood pressure
- The documentation of any physical effects, such as reduced mobility, joint pain, breathing difficulties (exploring the possibility of sleep apnoea: include questions regarding the quality of sleep and reports of any notable snoring).
- The documentation of any psychological effects, such as low self-esteem and depression.

If measuring blood pressure, use a larger cuff size where appropriate. Inaccurate readings will be obtained if the cuff size is too small.

If conducting a physical examination ensure that an appropriately sized gown is available.

In patients with certain co-existing diseases, the assessment may be extended to include a chest X-ray, echocardiogram (ECG) or glucose tolerance test.

Rare causes such as Cushing's syndrome should only be screened for in the presence of other clinical signs.

Cushing's syndrome

Cushing's syndrome is a hormonal disorder resulting from an excessive production of corticosteroids in the adrenal glands. Symptoms vary but most people will have upper body obesity with muscle wasting evident on the arms and legs. Sufferers may have a characteristic moon shaped face and the skin can be thin with striae visible on the abdomen, thighs, buttocks, arms and breasts. The hormonal changes can affect mood, levels of fatigue, fertility, blood glucose levels and blood pressure. A 24-hour urinary cortisol level is the most specific diagnostic test. Levels higher than 100 micrograms a day for an adult suggest Cushing's syndrome. A chest X-ray and MRI or CAT scans may be required. Cushing's syndrome has an incidence of less than six new cases per million per year and it is very uncommon for Cushing's syndrome to cause severe obesity. Those suspected of having Cushing's syndrome should be referred to an endocrinologist for further evaluation.

Gaining a picture of current lifestyle habits

Changes to diet and physical activity are the key to any obesity treatment. The evaluation of current dietary and physical activity patterns will therefore form an important part of the assessment process. Making recommendations for change and formulating a plan of action is difficult without a baseline measure of current practices.

Those experienced in obesity treatment report that initially this can be the most challenging part of the assessment process. Eating healthily and exercising regularly are viewed as admirable qualities and, not unexpectedly, people often find it difficult to disclose the opposite behaviour! In addition many obese people fear that they will be unfairly stereotyped as fast food loving, television addicts.

It must not be forgotten that some patients have an uncomfortable relationship with food and find it difficult to reveal even to themselves the extent of the problem. The frustration arises when the health professional places a high level of importance on getting the patient to categorically reveal what they are currently eating. However, this

part of the assessment should be regarded as a self-assessment by the patient, which is only guided by the health professional.

An open-ended question such as, *“If you could chose to change one thing about your diet, what would that be?”* can help identify areas for change.

Many patients are very aware of the food choices they make and how that impacts on their weight. Others may need prompting about factors such as irregular meal patterns, snack foods, large portion sizes, lack of fruit and vegetables. Anything, which the patient identifies and is prepared to change, is a good start in the process of improving their diet. A good strategy is to ask patients to describe how food fits into a ‘typical day’.

In terms of assessing activity levels, Kusner & Pendarvis (1999) ⁸ suggest starting with a question such as, *“Tell me about the most physically active thing you do”*.

Once an initial assessment has been made, more detailed information can be collected by encouraging the patient to keep a food and activity diary. This is referred to in obesity management as self-monitoring and is regarded as a key technique. The primary goal is to increase self-awareness of current eating habits and activity levels. The practice of writing down accurately what is eaten is a skill that needs to develop, but this will help patients to recognize key patterns of behaviour. Self-monitoring should be encouraged in the early phase of weight loss treatment but it is also a useful ongoing strategy. In fact research has shown self-monitoring to be a practice that distinguishes successful weight maintainers from less successful maintainers.⁹ An explanation should be provided with regard to what and when to record.

- Ask patients to keep a small notebook or provide a food diary
- Encourage the practice of writing down all food and drink as soon as it is eaten to avoid memory lapse
- Ask patients to record as much detail as possible about the types of foods eaten, the amounts and the cooking methods
- Remind patients to include drinks, especially alcohol

- It is useful to record the time and place and any influences such as the presence of others on eating

If suggesting a food diary to a patient, it is important to take time to explain this fully and to adopt a non-judgmental approach. Reassure the patient that the diary is something that others have found beneficial and that the time and effort invested in doing this can help with realistic and effective goal setting.

Identifying potential difficulties or barriers to change

Since changes in a patient's lifestyle are the mainstay of obesity treatment, care needs to be taken to ensure that the patient has thoroughly considered both the pros and cons of change for them at this time. Potential difficulties to success need to be identified from the outset and steps taken to overcome them. The maintenance of a 'food and activity' diary will raise patients' awareness of their own behaviour with regard to eating and exercise – the first and most important step towards changing things.

Patient expectations

The expectations that patients have about achieving weight loss are influenced by their past experience, what they read/see in the media, and others around them including healthcare professionals. Expectations are often greatly inflated beyond what is achievable from a physiological and psychological perspective. In addition to patient expectations, healthcare professionals need to ensure that they do not place unreasonable demands on their patients with regard to achieving weight loss. It is not uncommon to have obese patients report that their place on a surgical waiting list has been suspended until they can lose 4–5 stones in weight, yet they are expected to achieve this without any support being offered?

Assessing the expectations that patients have about weight loss requires a careful and considered approach. A good place to start is by asking patients what losing weight means to them this time. Ask patients to list everything that they think would change if they lost weight. Are all of these things really dependent on weight loss or could some of them happen even without losing weight e.g. taking a holiday or taking up an evening

class? Check what impact they think weight loss would have on their health and provide information on the benefits of even small amounts of weight loss.

Discuss the long-term and short-term goals for weight loss with a patient. In doing this, remind patients that just as with many other activities in life, losing weight requires effort, skill and determination. Encourage the patient to consider if they would have the same expectations of themselves if they were to decide to change other areas of their life? For example, would they be happy with anything less than the perfect garden if they decided to take up gardening as a hobby? Would they expect to achieve this as a matter of course or would they know it was dependant on a number of other factors such as the time they could devote to this, the information they would gather from books or magazines, advice from other gardeners, the money available for this, their level of motivation and the current condition of the garden. The approach to weight loss should not be any different to how we manage change in other areas of life. Individuals need to start with small steps and require help and support to formulate a plan, which will ensure that they will achieve a worthwhile but realistic level of weight loss.

Agreeing a way forward

Following a full assessment of the patient's health risk, dietary and physical activity habits, as well as expectations, decisions need to be taken about how the primary care team can progress with treatment.

In the first instance there should be mutual agreement about entering a weight management programme that will consist clearly of a **weight loss phase** followed by a **weight maintenance phase**. Secondly, the responsibilities of the patient and the practitioner need to be agreed. This does not imply that a formal contract should be drawn up but rather there should be a mutual understanding and respect about how the treatment will proceed.

The practitioner should undertake to:

- Offer support advice and guidance
- Have available the appropriate equipment and tools for assessing and monitoring progress e.g. weighing scales, BMI charts, large blood pressure cuffs etc.

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- Examine their own expectations of the treatment of overweight and obesity
- Make arrangements for referral to other healthcare professionals/support agencies as appropriate
- Review the patients progress and make arrangements for an appropriate level of follow-up

The patient should undertake to:

- Accept responsibility for making agreed changes to diet and activity
- Review their expectations and set realistic goals for what they want to achieve
- Make reasonable attempts to attend follow-up appointments

Support

Support is recognised as a crucial component of achieving successful behaviour change. It is therefore worth spending time discussing where that support might come from and what type of support would be most helpful. The health professional can be clear about what support can be offered from the surgery. For some, it may only mean an encouraging few words at regular intervals, for others more support may be required.

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