Medicine for Managers

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Obesity and Bariatric Surgery

Obesity is a global public health concern because it is a risk for many chronic diseases and reduces life expectancy. In the UK last year 65% of adults were overweight compared with 6% in the 1950s. Diminishing regular physical activity and a less balanced diet with increased reliance on fast food has caused the huge impact. In 2024, over-weight was higher amongst men (70%) than women (59%) but obesity was slightly higher amongst women.

Obesity in the most deprived group of the population is about 38%, just under double that of the least deprived (20%).

In the 20 years between 1993 and 2022, the changes in weight distribution were dramatic.

	Normal Weight	Overweight	Obese
	[*approximate figures*]		
1993	45½%	38%	15%
2022	34%	35%	29%

The Body Mass Index (***BMI***) remains a commonly used measure. It is straightforward, inexpensive and standardised requiring only height and weight making monitoring simple. It takes no account of factors such as muscle mass or fat distribution.

BMI	Weight status
Below 18.5	Underweight
18.5-24.9	Normal weight
25.0-29.9	Overweight
30.0-34.9	Obesity class I
35.0-39.9	Obesity class II
Above 40	Obesity class III

It is calculated as follows:

$$\text{BMI} = \frac{\text{weight (kg)}}{\text{height}^2\ \text{(cm)}}$$

A BMI above 40 is also known as morbid obesity Simply it is used to assess whether the weight is healthy for the height.

Increasing levels of obesity are serious. They result in disorders and diseases such as hypertension, diabetes, hyperlipidaemia, and sleep apnoea. NHS treatment is available but is variable by area.

Nowadays, the problem cannot be ignored and, despite available advice on diet, many morbidly obese people fail to lose weight.

Surgery provides a treatment and the most commonly used types are:

(1) ***Gastric Banding***, where a band is placed to encircle part of the stomach to reduce its capacity, resulting in the requirement for less food to feel ‘full’.

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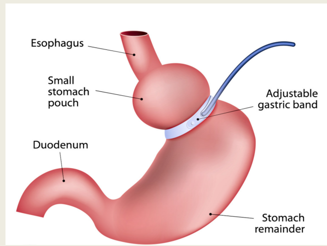
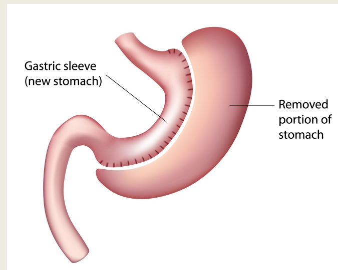
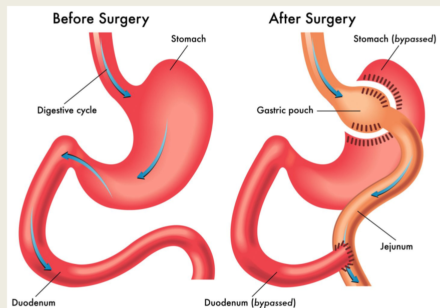


It is usually undertaken laparoscopically

(2)Gastric Sleeve where75-80% of the stomach is removed, leaving a small sleeve-shaped pouch to reduce the stomach capacity.



(3) ***Gastric Bypass,*** where the larger part of the stomach is bypassed so that food enters the small bowel, less food is digested and the fullness feeling occurs.



Neither procedure is without risk and grossly obese patients, who may have other serious medical problems, are already at intrinsically greater risk. It is estimated that death may occur in between one in fifty and one in 200 patients depending on the pre-existing degree of obesity.

Recovery time in hospital may be 1-2 days for gastric sleeve and 2-3 days for gastric bypass. The sleeve procedure may have fewer potential issues, such as leakage from the staple line or the development of nutritional deficiencies. The bypass may result in dumping syndrome (where food moves too quickly from the stomach to the small intestine), nutritional deficiencies and sometimes bowel obstruction following re-routing of the intestine.

Other significant risks include internal bleeding and clotting problems such as deep vein thrombosis and pulmonary embolism.

Following surgery persistent vomiting is common as patients come to terms with their dietary restrictions and dehydration may also ensue.

Patients who are to undergo bariatric surgery must be very carefully counselled beforehand to ensure that they have realistic expectations about their life and its restrictions after the operation.

Following bariatric surgery patients should not regard the process as complete. The surgery effectively contributes to the required weight loss.

However, it is necessary post-operatively to undertake a programme of dietary control combined with structured exercise and the approach to maintaining weight reduction will be lifelong.

Normally patients continue to see dieticians post-operatively because they may need vitamin and mineral supplementation and intensive advice about the diet to maintain the steady weight loss.

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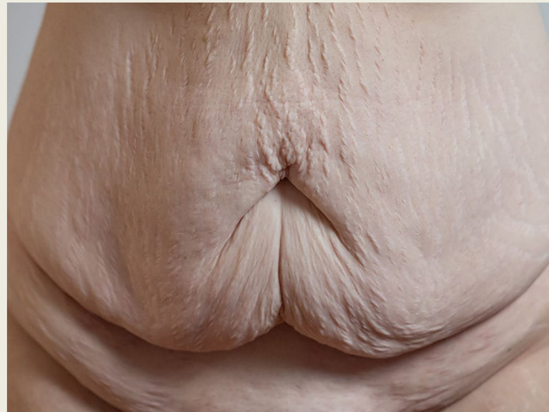
Post-operative counselling is also important. Psychological support, including cognitive counselling, may be necessary to provide the necessary encouragement.

Other problems may also develop. For example significant reduction in weight may be accompanied by the development of loose folds of redundant skin.



This may be in the form of an apron hanging from the lower part of the abdomen or from the chest, under the arms and round the neck and the sagging skin may need removal for physical and cosmetic reasons.

Grossly obese patients who have suffered anxiety or depression may attribute the problem to their weight and may find that the psychiatric problems do not disappear with weight reduction.

Sometimes interpersonal relationships are damaged by losing weight.

However, things are not all bad and it is often the case that patients with co-morbidities do improve as the weight reduces.

Raised blood pressure may come down towards normal and diabetes may improve. A proportion of patients can reduce medications for disorders aggravated by excess weight.

Overall the results of bariatric surgery are good. Research carried out in America suggests that patients with a gastric band will lose about half of their *excess* body weight and those with a gastric bypass or sleeve will lose about two-thirds of their ***excess*** body weight. In both groups there will be improvements (and sometimes cure) of other medical disorders.

No doubt the long-running debate about funding and whether the operations should be paid for by the NHS will continue.

Whether there will be a meeting of minds between the two polarised positions is probably very doubtful.

Undoubtedly the surgery will help most people to have more years of healthy life but obesity is generally controllable by the individual and some see it as a self-inflicted wound.

This debate is particularly focused at a time of financial stringency when, as now, there is considerable pressure on funding.

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