

## Obesity surgery

Current estimates suggest that around 10 per cent of the adult Australian population is obese. The associated health risks of 'morbid obesity' (unhealthy weight) include diabetes, heart disease, hypertension, sleep apnoea, arthritis, and reduced mobility and life expectancy. Obesity surgery is the last resort, when all other attempts at weight loss have failed and the person's health is at risk. Even then, this type of surgery needs careful consideration by balancing the risks of obesity against the chances of success and possible side effects of such procedures. It is not a form of cosmetic surgery, nor an alternative to good eating habits and regular exercise.

Obesity surgery can offer rapid weight loss but, to be successful, it must be accompanied by healthy eating habits and regular exercise. If the surgery is reversed, weight will inevitably be regained (even with the best of willpower), as the genetic tendency resulting in obesity can never be cured and is only modified by surgery.

### Calculating your Body Mass Index

There are various ways to categorise the degree of overweight and obesity. A popular and easy method is the Body Mass Index (BMI). This should only be considered as a guide. To calculate your BMI, divide your weight in kilograms (kg) by your height in meters squared (m<sup>2</sup>). The resulting figure is your BMI. A person with a BMI of 40 or more is at a much higher risk of suffering from obesity-related disorders, such as diabetes, reduced mobility or high blood pressure. The categories are as follows:

- **Less than 20** - underweight
- **20 to 25** - normal weight range
- **25 to 30** - overweight
- **30 to 40** - obese
- **40 to 50** - morbidly obese
- **More than 50** - super-obese.

### An example of a BMI measurement

If you weighed 110kg and were 1.55m tall, this is how you would calculate your BMI:

- Determine your height in metres squared ( $1.55\text{m} \times 1.55\text{m} = 2.4\text{m}$ )
- Divide your weight by your height in metres squared ( $110\text{kg} / 2.4\text{m} = 45.8$ )
- Your BMI would be 45.8.

### Surgical techniques

The various techniques of obesity surgery include:

- Stomach stapling
- Gastric banding
- Bowel bypass
- Jaw wiring.

### Gastric stapling and gastric banding (lapband)

Gastric stapling and gastric banding involve procedures where a small pouch is formed at the top part of the stomach. This allows only a small amount of food to be consumed at a sitting. This results in a feeling of satisfaction and the loss of hunger after a small, solid meal is eaten. If more food is eaten in the next hour or two, an overfull and bloated feeling will be experienced and regurgitation may occur.

Stomach stapling is usually done through an abdominal incision, while banding can usually be done with laparoscopic or 'keyhole' surgery. Banding has the advantage that it can be 'adjusted' - if there are problems with eating, the band can be loosened by an injection through the abdominal wall or, if insufficient weight is lost, the band can be tightened.

Both operations may result in early complications (such as infection, leakage from the stomach, thrombosis or embolism, or even death), although these are fortunately uncommon. In the longer term, staple lines can break down or the band may slip or become infected. Both operations are reversible.

## **Bowel bypass**

Food is normally digested and absorbed by the small intestine. A bowel bypass operation reduces the length of the small intestine by bypassing about three quarters of its length and allowing less food to be digested and absorbed. The consequence of this is that undigested food passes into the large bowel. This has the side effect of producing diarrhoea in the early months after surgery, which may be severe. Other problems in the early months can be nausea, abdominal cramps, a lot of wind and, sometimes, mineral deficiencies. There are several types of bypass surgery and they are not frequently performed, as they are more major than the stomach operations.

## **Jaw wiring**

The jaws are kept virtually closed and immobile with surgically implanted screws and wires. Foods have to be pureed and consumed slowly, often through a straw. The person is given a set of wire-cutters, in case the jaws have to be opened in an emergency. The long term results of jaw wiring are very poor and it is very rarely used except in unusual circumstances.

## **Stomach balloon**

This technique involved inflating a balloon inside the stomach to offer a feeling of fullness. Success rates in terms of weight loss are poor, and there is risk of stomach ulcer and bowel blockage. It is no longer recommended.

## **Surgery isn't a long term solution**

Obesity surgery is only part of a solution to unwanted weight gain. The surgery cannot control the type of food the person eats, the type of liquid intake, how often they eat or how much they exercise. The responsibility for these factors rests with the patient. Weight loss may be disappointing if these factors are not carefully controlled. Typically, a person can expect to lose around 50 to 75 per cent of their excess weight in the first 12 months after surgery.

## **Where to get help**

- Your doctor
- Obesity Surgery Society of Australia and New Zealand Tel. (03) 9421 1166

## **Things to remember**

- Obesity surgery is the last resort when all other attempts at weight loss have failed.
- There is no perfect operation, and surgeons differ in which operation they will suggest, but gastric banding, gastric stapling or a form of bypass are all accepted techniques.
- Obesity is a genetically based disease where sufferers have a strong desire to consume more food than they need. Obesity surgery cannot cure this disease, but can go a long way to controlling this hunger and helping the sufferer gain control over their weight.

**This page has been produced in consultation with, and approved by:**

Obesity Surgery Society Australia & New Zealand

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