

## INTRODUCTION

This brochure provides information regarding Gastric Banding procedure for weight reduction and weight control.

Severe obesity or being grossly overweight is described as 'morbid obesity'. This is a condition where being so overweight affects your health and length of life, as well as your overall appearance.

There are various ways of measuring 'morbid obesity' by charts that take into account your height, weight and bone structure, which are often used by insurance officers when calculating life risk factors associated with obesity. Another measurement is BMI which relates weight to height - ideal being 20-25, overweight 25-30, obese 30-40, morbidly obese greater than 40.

Morbid obesity is associated with physical and social problems, and other medical diseases and therefore weight reduction can assist in improving all these problem areas.

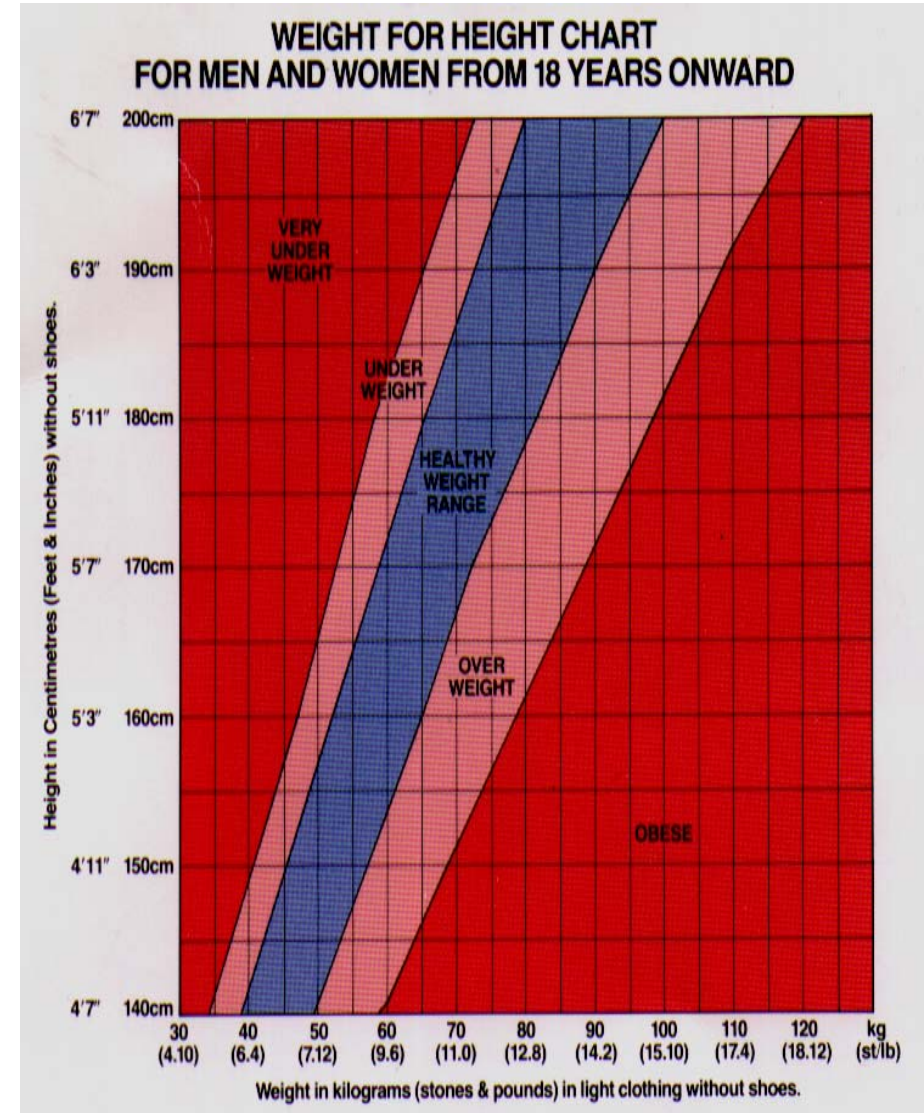
## WHAT ARE THE PROBLEMS OF OBESITY?

Physical, social and psychological problems are caused by obesity or are made worse by obesity.

These include:

### (a) Cardio-Vascular Problems

- High blood pressure
- Varicose veins
- Heart failure
- Atherosclerosis



The Lap-Band has a number of advantages:

- ***The band is adjustable***

It is possible to adjust the band, as a small reservoir of fluid connected to a balloon on the band is placed in the abdominal wall and by injecting a very small amount of fluid into the reservoir, the opening of the band can be made smaller or larger to vary the capacity of food one is able to eat. This procedure is usually done in the rooms.

- ***The operation can be performed laparoscopically***

When the operation is performed laparoscopically, the scars are small, there is less pain and patients tend to recover more quickly. Not all patients would be suitable e.g. those who have had previous abdominal surgery may not be able to have it this way due to adhesions and therefore open surgery may be necessary.



It is essential that the new small stomach is not unduly stretched and that the band settles into position and adhesions develop allowing the band to stabilise.

You will commence small sips of water the day after surgery, followed by clear fluids such as broth and jelly. A variety of fluids such as skim milk, custard, puree fruit, are usually started three days after surgery. At this time, a multivitamin preparation will be prescribed as a nutrient supplement to your diet.

Small quantities of well mashed or vitamised foods, such as mashed potato, pumpkin and porridge, are started about two weeks after surgery. Gradually you will increase your food intake from vitamised food to a regular diet of normal consistency. The progression from a liquid diet to a normal diet will take between four and six weeks.

A Dietitian will discuss the amount and type of fluids and food to be consumed during the transition to a 'normal' diet during your inpatient stay.

**You must make changes to your daily food habits to maximise the effectiveness of gastric banding surgery.**

These changes include:

1. **Eat slowly and chew foods well.**

Meals should be eaten at a leisurely pace. This helps you chew foods better and prevents overeating. Stop eating as soon as you feel your stomach is approaching fullness, regardless of whether there is food on the plate or not. One more mouthful will make you feel very uncomfortable.

## WHO IS A CANDIDATE FOR SURGERY?

Essentially people who are morbidly obese as described previously, in general greater than 50-60% over their ideal weight, greater than 40kg over their ideal weight or a BMI (Body Mass Index) as described earlier, over 40.

There are people who do not fit into this group, but who have associated medical problems that are affected by their obesity e.g. diabetes and some orthopaedic conditions. These people may be considered appropriate candidates for gastric banding operation under special circumstances.

Furthermore, people who are essentially morbidly obese should have tried other methods to reduce their weight e.g. Weight Watchers, Jenny Craig, supervision by a Dietitian or an exercise program and should be seen to be motivated to succeed.

Motivation associated with a balanced perception of what the problem is and how the surgical approach tackles the problem is essential and therefore before deciding if a person is a suitable candidate, it is important that they go through our 'protocol' before agreeing to have the operation. We also ask that a prospective patient reads the literature about the operation.

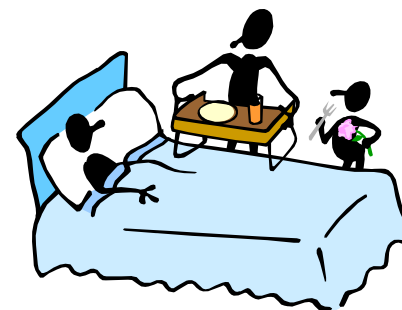
Secondly, as part of the protocol, an assessment by a gastroenterologist (a specialist physician specialising in stomach) and a psychiatrist (to ascertain whether there are any other related factors to cause the obesity) are required.

After these are obtained, a final interview with the patient is made to make a final decision to go ahead and to answer any remaining questions the patient may have.

Discussion regarding arrangements and costs is then organised. Referral to a dietitian is an option.

## THE OPERATION AND YOU

The operation is conducted in a major hospital and details will be explained at the time of interview. An important part of the procedure is patient motivation, as although the Lap-Band limits one's capacity to eat, the type of food and liquid that are consumed is very important. Patients are able to 'sabotage' the operation by taking in high caloric liquids or foods that melt easily and go through the stoma as liquid, e.g. chocolate, cheese, ice-cream etc. This reduces the post-operative ability to lose weight.



## HOSPITAL

Normal hospitalisation is between three and five days depending whether the procedure is done laparoscopically or through an open incision.

Initially for 2-3 days following the operation, fluids are taken and then with the assistance of a dietitian increasing to more solid/soft food, only very small amounts can be taken, ½ cup.

Remember, when you feel comfortable stop eating; that extra mouthful can cause pain and discomfort and even vomiting, as it may cause too much stretch of the upper pouch.

The operation is performed under general anaesthesia (totally asleep), administered by a specialist Anaesthetist who monitors the patient throughout the operation. Modern anaesthesia is extremely safe.

There are also the Surgeon and an Assistant Surgeon, who helps during the operation, together with the highly trained Operating Theatre nursing staff.

Following the surgery, the patient is taken to the Recovery Room until they are wide awake and are then transferred to the ward. Patients who have special problems, e.g. heart or lung problems, may need to go to Intensive Care for a short while after surgery.

## **YOUR DIET FOLLOWING GASTRIC BANDING**

Gastric banding surgery is the first step in achieving weight loss. Nevertheless, if you are to be successful at long term weight reduction and weight control, it will be your responsibility to adjust to a new way of eating - not only controlling the amount of food, but also the type of food eaten.

In controlling food intake, it is important to realise that the diet must still contain sufficient protein and other nutrients, which are essential for good health. In other words, your diet must be well balanced and contain small quantities of a variety of foods.

Following gastric banding surgery, the correct introduction of fluids and then food is important.

## **WHAT ARE THE COMPLICATIONS?**

Any operation has a number of risk factors and obesity surgery is considered major surgery.

The problems and dangers that can occur may be minor, so as not to be of great consequence or they can be major enough to require hospitalisation and in extremely rare cases may result in death. Mostly, uncomplicated problems post-operatively relate to chest and wound infections, which rarely require further surgery.

More serious complications, as mentioned earlier, include clots on the lungs and stomach problems, which very rarely require a return to the operating theatre. Perforation, band slippage and port infection can occur in the short or long term, but represent only 5-8% of cases.

The causes of death in the past have been associated with heart attacks after the operation, blood clots going to the lungs or overwhelming infection associated with stomach abscesses and stomach breakdown.

The Lap-Band reduces these risks occurring, but death may occur in 1-3 per 1,000 people of all ages.

Many precautions are taken, particularly in people with other disease, such as diabetes and asthma, to prevent the occurrence of these problems and after the operation blood thinning agents are given to reduce the incidence of clots in the legs, which may lead to further problems of clots in the lungs.

# Obesity Surgery Gastric Banding

For further information

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A Surgical Procedure for the  
Treatment of Morbid Obesity



Mr. Harry B. Frydenberg  
F.R.A.C.S.  
Surgeon



6. **Exercise daily for at least 20 to 30 minutes.**  
 Gastric banding surgery is not a miracle procedure or an easy way out. For success it must be accompanied by establishing healthy eating habits.



Gastric banding surgery helps to establish good eating habits, as the small stomach and the small opening of the band eliminates continual hunger and limits the amount you can eat at any one time. However, **you** are a very important part in your successful weight loss.

**TABLE OF ACCEPTABLE WEIGHTS FOR HEIGHTS**  
**2.5cm = 1 in 1kg = 2.2 lb (14lb = 1 stone)**

Height cm	Weight kg	Height cm	Weight kg	Height cm	Weight kg
140	39-49	158	50-62	176	62-77
142	40-50	160	51-64	178	63-79
144	41-52	162	52-66	180	65-81
146	53-53	164	54-67	182	66-83
148	44-55	166	55-69	184	68-85
150	45-56	168	56-71	186	69-86
152	46-58	170	58-72	188	71-88
154	47-59	172	59-74	190	72-90
156	48-61	174	61-76		

Height (cm) without shoes  
 Body weight (kg) - in light clothing without shoes

- (b) **Respiratory Problems**
- Reduced lung capacity
  - Breathlessness associated with effort
  - Obstructive sleep apnoea
- (c) **Digestive Problems**
- Gall stones
  - Cirrhosis of the liver
  - Cancer of the colon
- (d) **Mechanical Problems**
- Arthritis of the hip and knee
  - Deformity of spinal column
- (e) **Endocrine Problems**
- Diabetes
  - Period problems of women
  - Impotence of men
  - Infertility
- (f) **Skin Problems**
- Fungal infections
  - Moisture in folds

### **(g) Psychological Problems**

- Embarrassment in public
- Fear of being laughed at
- Introverted, withdrawn
- Low self esteem
- Depression
- Feel different and negative

### **(h) Social**

- Difficulty in finding clothes and keeping up with fashions
- Difficulties at work
- Difficulties with sexual and partner relationships

### **WHY DOES OBESITY OCCUR?**

Recently, there has been a gene discovered that is associated with obesity. How it works no-one knows, but the tendency to be overweight can run in families.

Hormone imbalance is also a cause of obesity, but the majority of people are overweight because the energy they take in (in the form of food, kilojoules/calories) exceeds the energy they expend or use (work, sport etc.)

Therefore to lose weight, this imbalance has to be rectified and to do this one needs to reduce the amount of food and hence calories eaten and do more exercise.

### **2. Eat three small meals per day.**

The upper stomach will hold about half a cup of food. If you try to take more than this amount of food on a single occasion, it is likely that you will experience pain and may vomit. As you cannot eat very much, you must choose wisely and not waste your capacity on nutritionally poor food. Foods that are high in protein, complex carbohydrates (or fibre), vitamins and minerals are the best, whilst food high in fats and simple sugars should be avoided.

### **3. Do not eat between meals.**

It is essential that once the meal is finished, you eat no more food until the next mealtime. One of the greatest causes for failure is eating between meals. **AVOID SNACKS.**

### **4. Fluids are not to be taken with meals.**

Avoid drinking with meals, as fluids are filling and can either prevent you eating adequately or will lead to overeating, pain and discomfort.

### **5. Drink fluids that contain no calories.**

Any calorie containing fluids simply flow past the restriction of the band and in spite of your best efforts, you will maintain your weight.

- You are allowed:**
- ✓ Water
  - ✓ Plain mineral water
  - ✓ Tea or coffee (preferably without milk and sugar)
  - ✓ Low calorie drinks

## THE HEALTHY FOODS PYRAMID

### A guide to good food choice



This is not easy, as prolonged dieting is often boring, difficult and frustrating, particularly when the weight loss is slow.

Increasing exercise is also hard, as it can be time consuming, tiring and often the amount of weight lost after a lot of exercise is not considerable and therefore this too can be very frustrating.

### WHERE DOES SURGERY COME INTO THIS?

There have been many different operations over the years to reduce weight. The early ones being jaw wiring (to stop people putting food in to their mouths), small bowel bypass (to stop food being absorbed into the body), gastric stapling and gastric bypass (a combination of both) and more recently, gastric banding (to reduce and limit the amount of food one eats and to slow the emptying of the stomach).

This most recent procedure, Gastric Banding using the Lap-Band is effective in that it reduces the capacity of the individual to eat and at the same time, makes them feel full and not hungry.

The operation can be performed by open incision or laparoscopically (a number of smaller incisions instead of a larger scar) "keyhole surgery." With banding there is less risk of side effects or complications as the stomach is not perforated by staples or other materials.