

A BARIATRIC GUIDE TO METHODS OF LOSING WEIGHT

PATIENT INFORMATION LEAFLET

Useful websites

www.nhs.uk www.chsft.nhs.uk

This information was correct at the time of printing. While the Trust makes every reasonable effort to keep its information leaflets up to date, very recent changes may not yet be reflected in the guidance and you should discuss this with the clinical staff at the time of your appointment.

Date of publication: June 2008
Date of CGSG: June 2008
Reviewed: Nov 2015
Due for review Nov 2018
Reference: 202/08
City Hospitals Sunderland

Bariatric Services, Directorate of General Surgery

City Hospitals Sunderland

Content		Page
•	Methods of losing weight	3
•	The Patient Journey	5
•	The Gastrointestinal Tract	9
•	Bariatric Procedures	11
	- The Gastric Balloon	11
	- Laparoscopic Adjustable Gastric Band	15
	- Gastric (Roux en y or loop) Bypass	18
	- Sleeve Gastrectomy	23
•	Important Points	27
•	Bariatric Team Contact Numbers	28
•	Useful website details	28
•	Height and weight chart	29

Notes

Notes

Methods of losing weight

More and more people in the UK are becoming overweight. Studies suggest that this is from eating too much and not doing enough physical exercise.

Most of us know that being overweight is a problem and that we should try to eat healthily and keep active. Many of us have tried just about every diet and find it very difficult to lose weight and keep it off.

Why lose weight?

Many people are happy being bigger than normal. But if you are overweight you are more likely to get health problems. These include diabetes, high blood pressure, arthritis, heartburn and gallstones. The more weight you carry the worse these problems will become.

However, you may not be aware that a non-smoking obese person is four times more likely to die early. This could be from a heart attack or stroke. An obese person is twice as likely to develop cancer of the breast, uterus, prostate or colon. Even a small weight gain of 10kgs (22lbs) after the age of 18 is associated with increased mortality (increased risk of dying) in middle age.

Another important factor is how much fat we have around our waist. The bigger your waist the bigger the health risks. In general women with a waist size over 88cm (35 inches), and men with a waist size over 102cm (40 inches) are more likely to get problems like diabetes and heart disease. The good news is that losing some of the excess weight can reduce many of these health risks. It can also improve your self-confidence and quality of life.

Are you overweight?

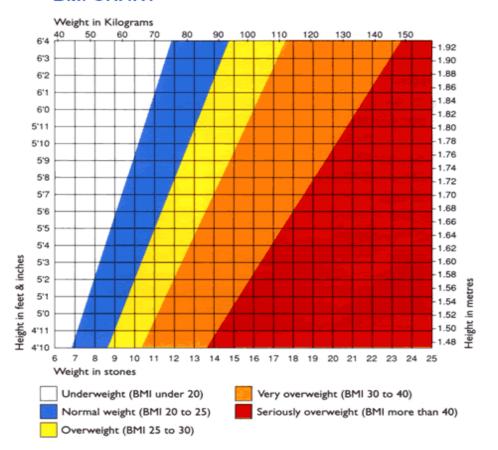
When you eat more energy than you burn each day, the spare energy is stored as fat. Your body fat content can be estimated from your height and weight using the Body Mass Index (BMI). This is measured in kilograms per square metres (kg/m2).

Take your weight in kilograms (kg) and divide it by your height in metres (m) then divide that result by your height again.

Example you are 1.74m tall and you weigh 122 kgs your BMI would be 122 divided by 1.74 that gives 70.11, divide by 1.74 again and you get 40.29

So your BMI is 40.3, which puts you in the seriously overweight range.

BMI CHART



Height	WEIGHT	+ / - Amount	ВМІ
DATE			

BARIATRIC SERVICE CONTACT NUMBERS

Appointments 0191 5410101

Hospital switchboard 0191 5656256

Specialist Nurses 0191 5656256 extensions 42708/42570

Dietitians 0191 5656256 extension 42832

There are websites that you may wish to visit:

www.bospa.org

www.WLSinfo.co.uk

www.nice.org.uk/CG43

www.obesityandsurgery.com

Other useful websites

www.nhs.uk

www.chsft.nhs.uk

The most effective way to lose weight is by choosing, healthy foods and being more physically active. This does not mean you can't have your favourite foods — you just need to have them less often.

To lose weight, you may need to change lifelong habits such as snacking between meals and eating very large portions. The dietitian will be able to advise and support you with this. Slimming groups are also another good source of regular support.

There are lots of ways to increase your physical activity, in fact virtually any extra activity is good, including swimming, walking, cycling, dancing, walking up stairs, gardening and housework.

YOU DON'T HAVE TO GO TO THE GYM!

Just increase your activity and try and pick something you enjoy. A realistic weight loss is 2lbs-4lbs (0.9 –1.8kgs) per month.

The Patient Journey

Your 1st appointment will be at a group session (seminar) where you will meet the team, find out about the service and options. Your 2nd appointment will be to see the Specialist Nurse/Consultant who will discuss your personal medical history with you, and you will also see the dietitian who will discuss your eating patterns and your lifestyle with you. You will be given a weight loss target at this point.

You will then be required to complete the Tier 3 aspect of the pathway which will include dietetic and psychological sessions with the aim of improving outcomes both pre and post-surgery. Once this has been completed you will then be handed over to the surgical team who will start planning your surgery.

Some patients may not be suitable for surgery even if they achieve weight loss. They may have to have further tests and see other specialists before surgery would be considered.

Dietitian

You will have a one to one appointment with the dietitian after your initial Bariatric appointment. They will then see you and support you regularly throughout your weight loss journey.

Patient Pathway Diagram

• Referred by GP

• Seminar

• Medical and Dietetic assessment

Tier3

- T3 Muli-disciplinary team meeting (MDT)
- Dietary educational sessions
- Psychology workup

Tier4

- T4 MDT, Consultation/Endoscopy
- Surgery
- Follow-up

Important Points

Weight Loss Target

This is not set to punish you. Weight loss prior to surgery will reduce the chance of complications.

Your weight will be checked at every appointment.

Smoking

You will be asked to stop smoking. You run more health risks from smoking than from obesity.

Ulcer formation in your pouch also increases especially after bypass/sleeve operations if you continue to smoke.

Pregnancy and contraception

It is not recommended that you become pregnant while you are rapidly losing weight. During weight loss, your body may not be getting all the essential nutrients it needs for you and your baby to be healthy.

We suggest you wait 2 years after surgery before becoming pregnant.

If you do fall pregnant, we advise you to let the dietetic team know as soon as possible so we can monitor you more closely. It is important to remember that you are likely to become more fertile when you lose weight, so precautions need to be taken, even if you have been told you cannot have children.

After bypass surgery the effectiveness of the oral contraceptive pill reduces and other precautions should be taken.

Pain medications

Naproxen and Diclofenac can cause ulceration and perforation after bariatric surgery. Discuss alternatives with your doctor prior to surgery.

Questions to consider if you are thinking of having a sleeve gastrectomy

- Are you ready to make changes in your lifestyle?
- The sleeve gastrectomy may help you to lose weight but only if you alter your diet and lifestyle and stick to these changes.
- If you eat for comfort or boredom, what will you do instead?

Can oral medication help?

Currently only orlistat is licensed in the UK to aid weight loss and should be taken under medical guidance. Best results are achieved when used in combination with dieting and exercise.

Orlistat is also known as XENICAL. It works by reducing how much fat (and also energy) is absorbed from the food. The fat that is in the food you eat is passed straight through the gut and passed out in the stools. Orlistat can have side effects if people don't cut down the amount of fat they eat. These include flatulence and smelly liquid/oily stools.

Can surgery help?

Surgery is a possible treatment for patients with a BMI of over 40, or over 35 in the presence of other medical risks such as high blood pressure. Usually these patients have been unable to lose weight and keep it off despite trying many times. Surgery can help but it is not a miracle cure it is just an aid and still requires a great deal of commitment.

There are always risks associated with surgery, but to date this is the only proven, and usually permanent way to lose weight.

Patients undergoing surgery must consent to lifetime follow up. Some patients may be referred to see a clinical psychologist to help them understand why they overeat and can be given help to make positive changes to their eating behaviours.

Who can be considered for surgery?

There are guidelines set by the *National Institute for Clinical Excellence (NICE)*, these state that to be considered as suitable for an operation, you must meet the following:

 Have tried to lose weight by dieting in the past and have tried medication to assist weight loss, if appropriate

- Not have any health problems that make you unsuitable for surgery.
- Be ready to change your diet and become more active You must be willing to return to the centre where you have the surgery for long-term follow-up.
- Have a Body Mass Index (BMI) equal or greater than 40 kg/m2 (Your BMI is a ratio of your weight against your height i.e. weight kg/height (m2)).

OR

 Have a BMI equal or greater or than 35 kg/m2 with health problems related to your weight, for example type 2 diabetes, high blood pressure or back/joint pain.

There is a BMI chart at the beginning of this booklet.

What are the benefits of surgery?

If an adequate weight loss is achieved, studies have shown that over 80% of adult onset diabetics come off all medicines. 80% of patients with high blood pressure have a return to normal readings, breathing difficulties disappear and bladder problems resolve.

Improvements are also seen in heartburn, fertility, venous ulcers on the ankles, joint pains and probably most importantly, self-image.

What does follow-up mean?

Follow up means that every patient is monitored and reviewed on a regular basis for two years. You will than go on to our annual postal review and annual bloods are required.

If you move away we must be informed where you are going to live so your follow up can be transferred.

What are the risks associated with sleeve gastrectomy?

- Stomach operations for obesity are major procedures and therefore carry the risks associated with any other major surgery.
- About 1 in 20 patients experience a complication following surgery, but most of these are minor.
- Major problems include chest infections, and wound infections, clots can also develop in the legs after surgery (DVT) and escape to the lungs (pulmonary embolus).

Multivitamins and mineral supplements are not considered necessary as there is no malabsorption associated with a sleeve gastrectomy. However, anaemia secondary to iron or vitamin B12 deficiency may develop. We advise patients to take an A-Z multivitamin in any case.

How long does the procedure take?

Operative time is approximately 2 hours.

What to expect afterwards.

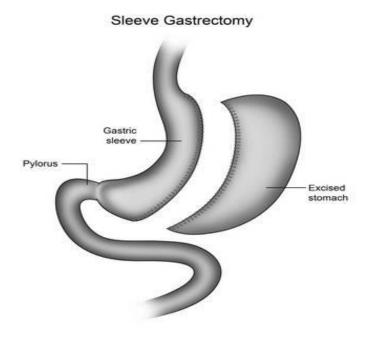
- You will experience some pain after surgery for which painkillers will be offered.
- Provided surgery is uncomplicated you will be offered sips of water the same day as surgery.

The dietitian will visit you during your stay and inform you as to when you can start to eat, and what you can eat and guide your re-introduction to food over the next 1-2 months.

What is a sleeve gastrectomy?

The diagram overleaf shows a sleeve gastrectomy. A large portion of the stomach (up to 75-85%) is removed surgically, leaving a tubular-shaped organ between the bottom of the oesophagus and outlet of the stomach. As a result, you will not be able to eat standard/large portions of food.

Sleeve gastrectomy is a **permanent** procedure and is not reversible as a portion of your stomach has been removed.



How is the sleeve gastrectomy carried out?

It is generally carried out laparoscopically (keyhole surgery). However, it can be performed as an open operation with a vertical incision in the abdomen.

You will be in hospital after the operation for 2-3 days. This will be longer if performed as an open procedure.

However you will remain a patient of the Bariatric Team although not reviewed in clinic. You can call the team anytime if you have any issues regarding surgery and have an appointment made with one of the team

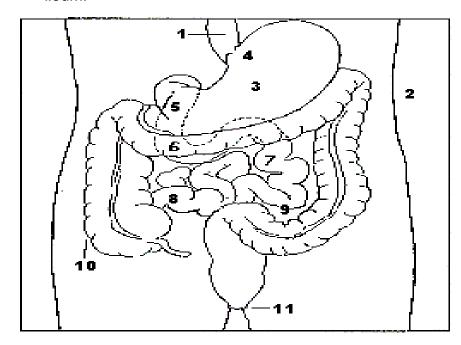
The Gastrointestinal Tract

To better understand how weight loss surgery works, it is important to understand how your gastrointestinal tract functions. As the food you consume moves through the gastrointestinal tract, various digestive juices and enzymes are introduced at specific stages that allow absorption of nutrients. Food material that is not absorbed is then prepared for elimination.

A simplified description of the gastrointestinal tract appears below. Your doctor can provide a more detailed description to help you better understand how weight loss surgery works.

- The oesophagus is a long muscular tube, which moves food from the mouth to the stomach.
- The abdomen contains all of the digestive organs.
- 3. The stomach, situated at the top of the abdomen, normally holds just over 3 pints (about 1500 ml) of food from a single meal. Here the food is mixed with an acid that is produced to assist in digestion. In the stomach, acid and other digestive juices are added to the ingested food to facilitate breakdown of complex proteins, fats and carbohydrates into small, more absorbable units.
- 4. A valve at the entrance to the stomach from the oesophagus allows the food to enter while keeping the acid-laden food from "refluxing" back into the oesophagus, causing damage and pain.
- 5. The pylorus is a small round muscle located at the outlet of the stomach and the entrance to the duodenum (the first section of the small intestine). It closes the stomach outlet while food is being digested into a smaller, more easily absorbed form. When food is properly digested, the pylorus opens and allows the contents of the stomach into the duodenum.

6. The small intestine is about 15 to 20 feet long (4.5 to 6 meters) and is where the majority of the absorption of the nutrients from food takes place. The small intestine is made up of three sections: the duodenum, the jejunum and the ileum.



- 7. The duodenum is the first section of the small intestine and is where the food is mixed with bile produced by the liver and with other juices from the pancreas. This is where much of the iron and calcium is absorbed.
- 8. The jejunum is the middle part of the small intestine extending from the duodenum to the ileum; it is responsible for digestion.
- 9. The last segment of the intestine, the ileum, is where the absorption of fat-soluble vitamins A, D, E and K and other nutrients are absorbed.

Sleeve gastrectomy can be considered for those individuals who have been unsuccessful with non-surgical attempts at weight loss. It requires lifestyle change, a balanced diet and increased physical activity.

A sleeve gastrectomy achieves weight loss by two main mechanisms. The stomach is narrowed significantly restricting the amount of food you can eat. It is also associated with a reduction of appetite as the portion of the stomach that is removed produces a hormone responsible for hunger.

There is usually a rapid and remarkable weight loss comparable to the gastric bypass. However, unlikely gastric bypass, there is no shortening of the bowel to cause malabsorption so total weight loss may not be as great.

Sleeve gastrectomy can be used as a primary weight loss procedure. It may also be used as the first step of a two-stage procedure in very overweight patients. Once adequate weight loss is achieved, the second stage of the procedure can be carried out safely. This is usually a malabsorption operation such as gastric bypass.

It is important to realise this procedure still requires lifestyle and dietetic changes to be successful.

Some important changes are:

Eat small regular meals with snacks in between meals if necessary.

Eating food slowly and taking care not to rush either food or drink.

- In the first year taking food in altered textures and taking time to find out what foods your sleeve can tolerate or not.
- Take adequate daily fluids of 2-2.5 litres/day (4-5 pints).

diarrhoea after eating. Some patients are unable to eat any form of sweets after surgery.

How long does the procedure take?

Operative time is approximately 1.5 - 2.5 hours.

What to expect afterwards

You will experience some pain after surgery for which painkillers will be offered.

Provided surgery is uncomplicated you will be offered sips of water the same day as surgery.

The dietitian will visit you during your stay and inform you as to when you can start to eat, and what you can eat.

Questions to consider if you are thinking of having a gastric bypass

- Are you ready to make changes in your lifestyle?
- The gastric bypass may help you to lose weight but can you stick to your diet and lifestyle changes.
- If you eat for comfort or boredom, what will you do instead?
- Are you prepared to return to the place where you had surgery for band refills and follow-up?

- 10. In the large intestines, excess fluids are absorbed and a firm stool is formed. The colon may absorb protein, when necessary.
- 11. The rectum and anus, waste passes from here in the form of faeces.

BARIATRIC PROCEDURES

There are two basic mechanisms of weight loss surgery.

Restrictive- Restrictive procedures decrease and limit food intake.

Malabsorptive - Malabsorptive procedures alter digestion, this causes the food to be poorly digested and incompletely absorbed. Some procedures combine restrictive and malabsorption techniques.

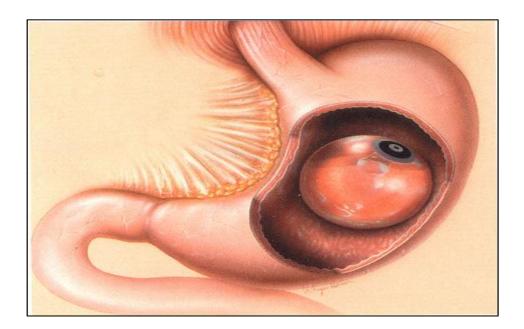
THE GASTRIC BALLOON

Introduction

Surgery is sometimes contemplated for those people who find it very difficult to lose weight, but because of gross obesity they run significant risks from any operation. A gastric balloon has been developed which, in conjunction with a supervised diet and behaviour modification, can help patients temporarily to shed excess weight.

What is a gastric balloon?

The intra gastric balloon system consists of a soft, expandable balloon attached to a placement tube and filling system. This allows the doctor to place the balloon through the mouth into the stomach, fill it and then detach the placement tube. The balloon fills part of the stomach, giving the patient a feeling of fullness, thus reducing the amount they can eat at mealtimes.



Placing the gastric balloon

Before placing the gastric balloon, it is necessary to first undergo a gastroscopy under throat spray local anaesthesia, often with sedation intravenously.

This is an examination of the oesophagus (gullet), stomach and start of the small bowel (duodenum) using a flexible telescope (endoscope). This is about the same thickness as a little finger. If there are no abnormalities, such as a gastric ulcer, severe acid reflux or a large hiatus hernia, then a fully collapsed balloon is swallowed and placed in the stomach. Once inside the stomach, the balloon is filled with blue coloured saline (salt water) and the special filling system detached. The balloon has a self-sealing valve to prevent leakage of the saline.

Placement times vary, but take about 20-30 minutes. You will normally be in hospital for 2-3 days following this procedure to control nausea and heartburn.

What risks are associated with gastric bypass?

- Stomach operations for obesity are major abdominal procedures and therefore carry the risks associated with any other major surgery.
- About 1 in 20 patients experience a complication following surgery and many of these are minor. Approximately 1in 50 patients develop serious complications like bleeding, leaks, or bowel obstruction, which may require reoperation.
- Other complications include chest infections, and wound infections.
- Clots can develop in the legs after surgery (DVT) and spread to the lung (PE). Patients undergoing loop gastric bypass can experience symptomatic biliary reflux requiring conversion to Roux en Y Gastric Bypass.

Because the duodenum is bypassed, poor absorption of iron and calcium can result in the lowering of total body iron and a predisposition to iron deficiency anaemia. All of the deficiencies mentioned however can be managed through proper diet and vitamin supplements.

The bypassed portion of the stomach, duodenum and segments of the small intestine cannot be easily visualized using X-ray or endoscopy if problems such as ulcers, bleeding or malignancy should occur.

Dumping

A condition known as "dumping syndrome" can occur as the result of rapid emptying of stomach contents into the small intestine. This is sometimes triggered when too much sugar or large amounts of food are consumed.

While generally not considered to be a serious risk to your health, the results can be extremely unpleasant and can include nausea, weakness, sweating, faintness and, on occasion, The two limbs of the bypass can vary in length, with surgeons preferring their own technique. Lengths are generally between 0.75 m and 2 m. Usually the heavier patients have longer limb lengths.

In Loop Gastric Bypass, a longer gastric pouch is formed and an omega loop configuration is created bypassing usually 2.0 meters of small bowel. Loop gastric bypass has the advantages of being a shorter procedure with one less anastomosis. It is hence associated with lower risk of an anastomotic leak, bowel obstruction, and internal hernia. However, these gains come at the cost of increased risk of symptomatic biliary reflux which may require conversion to roux en y gastric bypass.

The small stomach pouch with gastric bypass means that you will not be able to eat as much at first. Your food will bypass part of your stomach and part of small intestine. As a result, you may not absorb as much of the food that you eat. For this reason, multivitamins and mineral supplements after surgery are essential. This should be considered a permanent procedure although reversal is possible because nothing is removed.

How is the bypass carried out?

In Roux en Y Gastric Bypass, the surgeon creates a small stomach pouch to restrict food intake. Next, a Y-shaped section of the small intestine is attached to the pouch to allow food to bypass the lower stomach. In Loop gastric bypass, the pouch is longer and connected to a loop of small bowel as shown in the picture. Both reduce the amount of calories and nutrients the body absorbs.

Both forms of bypasses can be carried out laparoscopically, (by keyhole surgery) through five or six small incisions. It may sometimes be necessary to carry out an open operation with one vertical incision in the abdomen. You will typically be in hospital for 2-3 days after a laparoscopic gastric bypass.

Who can use a balloon?

This system may be particularly useful for patients considered too fat for vital surgery. The risks associated with surgery in overweight patients (chest infections, blood clots on the legs and lungs, wound infections, etc) may be reduced significantly once sufficient weight has been lost.

How long can the balloon be in place?

The gastric balloon is currently licensed for up to 6 months use. Longer periods are not recommended because gastric acid will weaken the balloon causing it to deflate. You will be prescribed an acid-reducing medicine to prevent this potential problem, which also has the advantage of reducing any heartburn experienced while the balloon is in place.

What happens if the balloon deflates spontaneously?

A number of things may be noticed if the balloon deflates by itself. Firstly, the patient's appetite will return to normal. Secondly, the blue coloured dye in the saline will be passed in the urine, turning it blue.

Rarely, the balloon can enter the bowel and cause a blockage, although the deflated balloon can sometimes pass through the bowel completely. The hospital must be notified immediately if there are any signs that the balloon has deflated. Surgery will probably be required to remove the balloon if it causes an obstruction.

How the balloon is normally removed?

The balloon is normally removed back out through the mouth. Prior to removal the patient is sedated and throat spray applied. A gastroscopy is performed, the balloon located and then punctured using a special needle. The coloured saline is sucked out completely and the bag grasped and removed.

How much weight can be lost?

The gastric balloon <u>is an aid</u> to losing weight and must be used in conjunction with a prescribed diet. Weight loss is therefore dependent on how closely a patient sticks to their diet and can vary considerably. The reported average weight loss over a 6-month period in patients who adhere to their diet is about 10 - 20 kgs.

What are the risks associated with a gastric balloon?

As mentioned earlier, the balloon can spontaneously deflate. This tends to occur if it is left in the stomach for longer than is recommended.

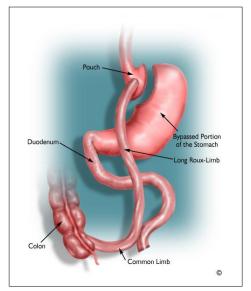
The balloon is also associated with nausea and heartburn. The nausea settles quickly, but acid suppression tablets will be required while the balloon is in place.

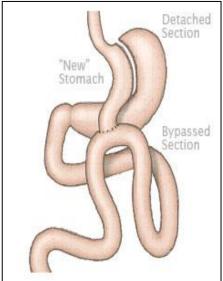
The balloon can also irritate the lining of the stomach. Ulcer formation, pain, bleeding and perforation have been reported, but are rare. You are advised to not take any medicines that irritate the stomach lining when a balloon is in place.

As with all medical procedures, there is a risk of unforeseen, unknown or adverse reactions to medications used. These vary from patient to patient and are not predictable.

Some important changes are:

- Eating small regular meals with snacks in between meals if necessary.
- Eating food slowly and taking care not to rush either food or drink.
- In the first year taking food in altered textures and taking time to find out what foods your bypass can tolerate or not.
- Taking a multi-vitamin and mineral supplement daily for the rest of your life.
- Avoiding high concentrations of sugar to prevent dumping syndrome.





Roux bypass

Loop bypass

What is a gastric bypass?

The diagrams show the two forms of gastric bypass. In Roux en Y Gastric Bypass, a small pouch is formed which can range from 15 - 30 mls in volume. A Y shaped configuration is then created using small bowel.

GASTRIC (ROUX EN Y OR LOOP) BYPASS AND WEIGHT LOSS

Introduction

A gastric bypass (roux en y or loop) operation helps weight loss by both restricting food volume and also diverting food away from gut enzymes which aid absorption. It still requires a change in lifestyle, eating a balanced diet and being more active.

Weight loss can be rapid in the first few months after surgery. Overall it is hoped that you will lose 70% of your excess body weight. There is a risk of biliary reflux with loop gastric bypass which may need conversion to roux en y gastric bypass.

Gastric bypass does not remove the need to be cautious with your diet. You will have to follow dietary rules and take a multivitamin and mineral supplement for the rest of your life.

It is not impossible that after 2 years post surgery you will regain some of the weight lost. Therefore you need to make sure that you can follow the dietary changes asked of you after surgery.

Dietary advice

You will be given dietary advice by the dietitians after your operation. You need to follow a pureed diet for 4 –6 weeks, you will be advised on suitable foods to take. Gradually more normal textured foods are introduced.

Many people find that roast meat is difficult to eat but that casseroles or stews are easier. Unfortunately most people find that snacks such as crisps are very easy to eat and therefore, you have to show some self control over food choice to maximise your weight loss.

It is important that you have a balanced diet. The dietitian will also be able to advise you on how to prevent weight gain once the weight has been lost.

LAPAROSCOPIC ADJUSTABLE GASTRIC BAND

Introduction

The gastric band may help you to lose weight and keep it off by reducing the amount you can eat in one sitting and by helping you to feel full for longer. The gastric band is not however a quick answer to losing weight.

- When the band is sufficiently adjusted the expected rate of weight loss is around 1-2lbs (0.5- 1.0kg) per week.
- This may not sound much but is the same as losing between 3 stone 10 lbs (23.5kgs) to 7 stone 6lbs (47kgs) per year.

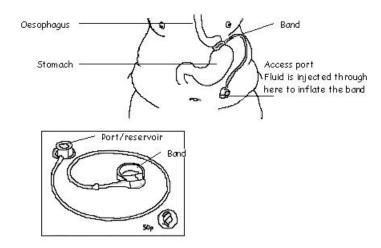
If you are considering the gastric band, you still need to make changes to your lifestyle, eat a healthy balanced diet and be more active. You will have to work with the band to get the best results.

What is a gastric band?

The gastric band consists of an inflatable band with a tube, which connects the band to an injection (access) port. During surgery the band is placed around the upper part of your stomach and the port (a small button-like reservoir) placed under your skin below the breastbone. This is connected to your band by a very small tube (see picture).

Placing the Gastric Band

Gastric banding is the least invasive of all current surgical methods designed to assist weight loss. Its main advantage is that it can be placed around the stomach using minimal access surgery (keyhole surgery).



You will need to have some preparatory investigations prior to having a gastric band placed.

These consist of an appointment to attend a pre-assessment clinic for a general health check. This may include an ECG (tracing of the heart) and blood samples to see if you are fit for the general anaesthetic. When this is complete you will be given a date to come into hospital.

As it can be inserted using keyhole surgery, patients recover quickly from surgery and can be discharged within 24 hours after operation.

What are the risks?

- Stomach operations for obesity are major procedures and therefore carry the risks associated with any other major surgery.
- The Lap-Band has a lower anticipated death rate of 1 in 1000 operations.
- About 1 in 20 patients experience a complication following surgery, but many of these are minor.

- Major problems include chest infections, and wound infections.
- The gastric band can erode into the stomach after surgery. It can also slip and be overinflated resulting in pouching of the stomach. These complications usually present with vomiting and require band deflation and/or removal.
- Blood clots can develop in the legs after any operation (deep vein thrombosis -DVT) and spread to the lung (pulmonary embolus -PE).

Band inflation

The band is inflated by putting a fine needle through the skin and into the special reservoir. Fluid is injected into the reservoir and into the band. This causes the band to inflate making it tighter.

A small stomach pouch is created so that when you eat you will feel full more quickly. You also will feel full for longer as the food will stay in your stomach pouch for longer.

You may have to return for several band inflations before you get the correct amount for you. Once at a suitable level, you should be able to eat smaller portions of a healthy balanced diet, should feel full for longer and lose weight at a rate of about 1-2lbs (0.5-1kg)/ week. If too much fluid is put in and the band made too tight, you will not be able to eat a balanced diet.

The gastric band <u>is an aid</u> to losing weight and must be used in conjunction with a prescribed diet. Weight loss is therefore dependent on how closely a patient sticks to their diet and can vary considerably.

In 2 years weight loss can be as much as 50% of the excess weight. i.e. if you are 10 stone overweight then over the first two years you may lose up to 5 stone in weight.