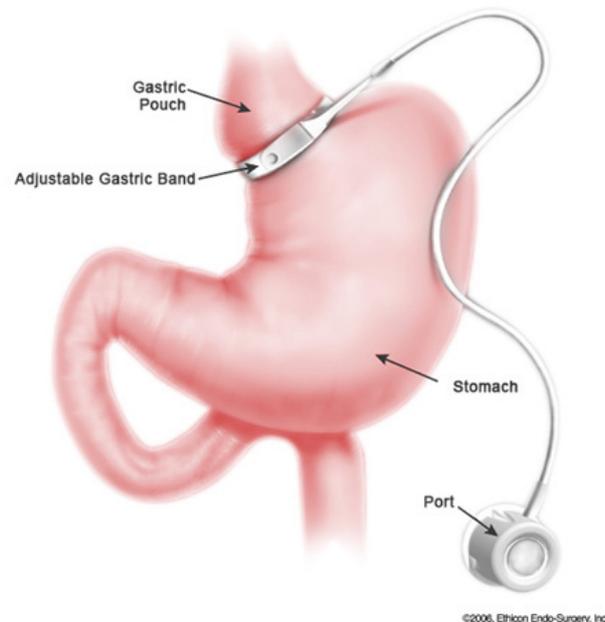


Patient Information Leaflet

Patient information for laparoscopic adjustable gastric banding



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Introduction

This information booklet has been developed to help prepare you for your laparoscopic gastric band procedure. It covers what you can expect before, during and after your stay in hospital and helps you with the lifestyle changes you need to make after surgery.

There are two confirmation pages at the end, which you need to sign. You will be expected to return the signed booklet to the surgical team at your pre-operative assessment. One copy will be filed in your hospital notes. It is important that you give yourself adequate time to process all the information and we are happy to answer all questions you might have.

Remember, this is the beginning of a challenging journey and it is important that you are well prepared with information and determination to maximize your chances of improving your health and achieving your goals.....

Surgical overview

Bariatric surgery (surgery for obesity) includes several different types of operations which are normally carried out laparoscopically (keyhole surgery). Gastric banding is a type of gastrointestinal surgery which reduces the amount of food you can eat. The procedure makes you feel full sooner and for longer, which means you eat less.

Laparoscopic surgery involves several very small incisions rather than one large incision that are used in open surgery. Harmless carbon dioxide gas is introduced into the abdomen, inflating it, and creating a space for the surgeon to work. The surgeon introduces

a long narrow camera and surgical instruments, and uses these to perform the procedure.

Laparoscopic procedures have many advantages, including less pain, a shorter hospital stay, and a quicker recovery, as well as significantly reduced risk of wound infection or hernias. If for some reason your surgeon cannot complete the procedure laparoscopically, they can convert to the open procedure safely. The chance of this occurring is low, and would only be done in your best interests.

The gastric banding procedure involves the surgeon placing a soft adjustable silicone band around the upper part of the stomach, giving it an hour-glass shape. A small passage between the small upper stomach (pouch) and the rest of the stomach allows food and fluid to pass through. When you eat, the food quickly accumulates in the small upper pouch and slowly passes down to the lower part of the stomach. The band is adjusted by injecting saline into a port which is situated just below the skin on the upper abdomen. Your anatomy is not changed by this procedure. The digestion and absorption processes in the digestive tract remain the same.

At around 6 weeks post-operatively you will attend an outpatient's appointment where your first band adjustment will be done. It may take several appointments to achieve the correct level of satiety known as the 'sweet spot'. If the band is too tight you

will be unable to eat anything and may vomit; if too loose you will be able to eat large meals.

Improved health

Bariatric surgery reduces the risk of death from obesity. Many obesity-related conditions such as type II diabetes mellitus, obstructive sleep apnoea, joint pain, lipid (cholesterol) abnormalities and high blood pressure are either completely resolved or substantially improved.

Long-term weight loss

Most patients achieve good to excellent weight loss results following gastric banding; typically this is a minimum of 50-60% of excess weight. **There is no amount of weight loss that is guaranteed. Long-term sustained weight loss and improvement in obesity-related health conditions will only occur with healthy eating and regular exercise.**

The laparoscopic gastric band procedure is best seen as a tool that makes these lifestyle changes sustainable.

Preparation for surgery

Once you have a date for your operation, you will be sent an appointment to attend the pre-assessment clinic (Erme Ward on level 4) where your fitness for surgery will be assessed by a nurse and anaesthetist.

At this appointment a pharmacist will be informed of your regular medication. All medication will need to be taken in liquid, crushable or soluble form for 2 weeks post-operatively. The pharmacist will ensure that your medication is available for you in this form after your surgery and to take home when you are discharged.

You will also be given information on the liver reducing diet which you will need to follow for either 2 or 3 weeks immediately prior to your surgery.

Your Liver Reduction Diet

Q: Why do I need to follow a pre-operative diet?

Before surgery, it is essential you follow a strict calorie controlled diet. It is vitally important that for two weeks before your surgery (or three, you will be told how long by your surgeon) you follow a very restricted diet that is low in fat, sugar and carbohydrates. This will reduce the size of your liver and minimise the risk of complications associated with surgery. It will also ensure the operation can be done by keyhole/laparoscopic surgery. If your liver is too big your operation will be abandoned as it will not be safe to proceed with the liver in the way.

By following a strict diet, your body reduces its glycogen stores (glycogen is a form of sugar stored in the liver and muscles). When you follow a very strict diet especially one that is low in carbohydrates, your body loses its glycogen stores and some water, which in turn shrinks the liver. **Surprisingly the liver can replace its stores very quickly, so it is important that you follow the diet strictly. A single carbohydrate-rich meal**

shortly before your operation can undo all your good efforts and lead to difficulties during surgery.

This diet is not optional and only recommended prior to your operation. Much of the weight lost on this diet is water. As a result you may become dehydrated so you need to drink more often than usual.

In addition to the diet remember to, avoid alcohol, stop smoking, and keep active e.g. walking 1-3 miles a day or swimming. Even gardening is an excellent exercise.

Q: What if I am a Diabetic?

If you have diabetes and are treated with insulin or tablets (e.g. gliclazide, glibenclamide, tolbutamide) you may need to adjust your medication. Check your blood sugar levels more regularly to make sure that you do not experience 'hypos' (blood sugars below 4 and causing symptoms such as dizziness, sweating and shaking. Please contact the team if you are experiencing any problems).

If your diabetes is controlled by diet alone, you will not need to worry about your blood sugars becoming too low.

Please contact the hospital Diabetes Centre on Plymouth 01752 792963, who will be able to advise you about your medication.

Q: What does the pre-operative diet involve?

You must choose **ONE** and **ONLY ONE** of the following options

Option 1: A Liquid diet

- 4 cans of Weight Watchers® or other low calorie soups (under 100 calories per portion)
and
- 4 low calorie yogurts (under 100 calories per pot)
E.g. Muller light®, Supermarket own brand diet yogurts, or other low fat, low sugar varieties
and
- 200mls skimmed milk for hot drinks
- Take a **vitamin** and mineral tablet every day.

Option 2: A Meal Replacement Diet

E.g. Slimfast® diet

- 4 Slimfast® drinks (2 x level scoops each made with 250mls skimmed milk) – **not** ready-made shakes, snacks or meal bars
and
- 200mls skimmed for additional drinks
- Take a multivitamin and mineral tablet every day.

Q How much fluid can I have in total for all options?

- The remainder of the milk allowance. Plus calorie free drinks to make up at least 2 litres of fluid.
- Spread drinks and food evenly throughout the day. Do not save everything for later in the day.
- Drink at least 2 litres of fluid every day and drink more in hot weather. This includes all fluids, beverages, milk, juice, squash. Remember to count these as part of your total daily calorie intake.

Q Who do I contact if I have any questions?

If you have any questions or concerns, or need any further information please contact the Bariatric Specialist Nurse / Dietitian on 01752 431724

Hospital Admission

Day Zero: admission

You will be admitted to Fal Ward, level 4, on the morning of surgery unless you have specific medical problems that your anaesthetist and surgeon wish to monitor closely overnight. It is understood that you will have had a thorough shower prior to admission, and that you bring along everything you require for your hospital stay. Please do not bring anything valuable in with you. If you have any further questions for your surgeon or anaesthetist please write them down and bring them

with you to the hospital. Your admission letter will have the instructions about when you should stop eating and drinking on the morning of your operation

CPAP (Continuous Positive Airway Pressure)

If you currently use CPAP, please bring your machine with you to hospital.

Medication

Don't stop any medications unless told to do so. You will be advised at your pre-operative assessment.

During the admission process your surgeon, anaesthetist, admission nurse and theatre nurse will see you. This will mean that different people ask you the same questions. This is a safety issue, and although it can be frustrating, it is important. Use this time to ask any questions that you may have.

Once you have been admitted and changed into your theatre gown and TEDs (stockings to help prevent clots in the legs), you will wait in the preoperative area until the operating theatre is ready. A final check between the theatre staff and the admission staff takes place before you are taken into the operating room.

You will walk into the operating room and lie on the operating table, which is narrow and firm, and a blood pressure cuff, heart monitor and oxygen monitor will be attached to you so your anaesthetic team can monitor you closely throughout the procedure. Your anaesthetist will place a cannula (drip) into a vein and ask you to

breathe some oxygen through a plastic facemask. Your anaesthetist will then gently send you off to sleep.

Recovery Unit

You will wake up in the recovery unit with all the monitoring still attached to you. Once you are awake and comfortable you will be transferred to the ward, this is usually Crownhill ward on level 7.

Further post-operative care:

Your nurse will record your vital signs regularly and give medications to control any pain or nausea.

You will be encouraged to do deep breathing exercises to keep your lungs healthy, and you will also be strongly encouraged to sit out in a chair. Early mobilisation is good for prevention of deep vein thrombosis (DVT). We will get you out of bed the same day as your surgery.

You will also have TED stockings on as a further measure to prevent DVTs.

You can start to drink water the day of surgery.

Day One

Ward

Clear fluids can be sipped slowly, about 50mls at a time. Water, tea, coffee (with a little milk if you like), sugar free squash, fruit juice, clear soup (consommé, stock cube or Bovril), sugar free jelly.

Do not try to hurry this, have a cup or water bottle at hand and sip slowly and steadily. You will continue to be given Clexane injections and wear TED stockings.

The surgical team will see you in the morning. Various other members of the team such as the nurse specialist or diabetes team may also see you.

It is important that you get up and move around as soon as possible, so you will be encouraged to walk around the ward.

Medications for pain and nausea will continue and you will be changed to oral forms as soon as you can manage.

Most patients, if they are progressing well, will be able to go home on this day. Dietary advice will be provided prior to discharge.

Potential complications

All surgery has risks. People have died from having operations for morbid obesity. It happens rarely, but the risk can never be taken away completely. If you are older, or you already have certain health problems related to your obesity, your risk may rise. Heart attacks after the operation or clots that form in the leg veins, which then pass to the lungs, can cause death in morbidly obese people after surgery. This risk is less than 1 in 500. Thorough precautions are taken during surgery and your hospital stay to minimise these risks, but they cannot be eradicated altogether.

Other problems that can occur after gastric band surgery include pneumonia and wound infections. Some of these are relatively minor and do not have a long-term effect on your recovery. Other complications may be

more significant and require a longer hospital stay and recovery period. Antibiotics at the time of surgery, deep breathing exercises and early mobilisation after surgery are some of the measures taken to reduce the risks of these complications. Complications that occur with gastric band surgery are listed below. Although most patients have no complications, or minor complications only, please take note and ask your surgeon and team any questions that will help you to understand the risks associated with obesity surgery.

During surgery

- A larger incision may need to be made because of technical difficulty with keyhole approach (open surgery)
- Bowel injury from insertion of keyhole instruments
- Bleeding from vessels or injured organs
- Injury to spleen. May require removal of spleen
- Injury to other organs. Examples: oesophagus, pancreas, liver
- Technical difficulty leading to change in operation strategy

After surgery

- Bleeding. May require transfusion or return to surgery
- Infection. At keyhole incisions, or deep within the abdomen

- Sepsis. Severe infection that can lead to organ failure and death. This can lead to prolonged hospital stay and further surgery
- Pulmonary embolus, a blood clot in the lungs, can be fatal. Rate = approximately 1%
- Deep vein thrombosis. A blood clot in the legs
- Pneumonia
- Respiratory failure. Inability to breathe adequately after surgery. This may require support of breathing in an intensive care ward
- Heart attack or abnormal heart rhythm
- Stroke
- Pancreatitis
- Urinary tract infection
- Complications related to placement of intravenous and arterial lines. This includes bleeding, nerve injury or pneumothorax (collapsed lung)
- Nerve or muscle injury related to positioning during surgery
- Allergic reactions to medications, anaesthetic agents or prosthetic devices
- Death (less than 0.2%)

In the longer term

- 10-20% risk of re-operation over 10 years due to band infection, slippage, erosion, adjustment port problems or tubing leak
- Problems with adjustment of band due to difficulty in locating port

- Vomiting or reflux if band too tight
- Inadequate weight loss
- Dehydration or imbalance of body salts. Usually from inadequate fluid intake
- Gall bladder disease. Usually from gallstones that form during rapid weight loss, can require surgical removal of the gallbladder
- Hernias at the site of incisions
- Psychological problems that can include depression and adjustment disorder
- Relationship difficulties and rarely suicide

Advice on discharge

You will be given medications to take home with you after discharge. These include:

- Multivitamins
- Anti-acid to reduce stomach acid, usually for one month
- Analgesia for pain relief

You should continue to take your normal medication in liquid, crushable or soluble form for 2 weeks post-operatively. After that time you should be able to take capsules or tablets again.

Eating and drinking after your surgery

Day 2

Free fluids should be sipped slowly, about 50mls at a time, the same as day one. You can add milk, thin smooth soup, thin smooth low fat yoghurt and vegetable juices.

Day 3

Increase the amount of fluid to 100mls at a time and start to include cereals such as thin porridge or Ready-Brek®.

Day 4

Increase the variety of foods such as liquidised soup with lentils, pulses or grated cheese, gravy with mashed potato.

Day 5

Now you can eat pureed foods. All food must be smooth and not contain any lumps. Use a liquidiser or blender. When liquidising food use extra liquid like stock, thin sauce or cooking water. The consistency should be like thick smooth soup and should pour off the side of a spoon easily.

Continue with pureed foods for the first four weeks after surgery.

Some menu ideas to help you plan your meals in these early weeks:

Breakfast

2-3 tablespoons of porridge or Ready-Brek® or

1 pot of low fat yogurt or

1 Weetabix® with semi skimmed or skimmed milk or

200mls fruit smoothie (low fat yoghurt, fruit and milk)

Midday meal and evening meal

100-200 mls soup blended to a smooth consistency or

3-4 tablespoons (100g) cottage pie, pureed or

3-4 tablespoons (100g) fish pie, pureed or

3-4 tablespoons (100g) Bolognese and mashed potato,
pureed or

3-4 tablespoons (100g) mashed potato with grated cheese,
pureed or

3-4 tablespoons (100g) baked beans with mashed potato,
pureed

Add 1-2 tablespoons of pureed vegetables to any of the above

Snacks

Small pot of smooth low fat yoghurt or fromage frais or

2-3 tablespoons low fat custard or

2-3 tablespoons sugar free jelly or

2-3 tablespoons pureed tinned fruit in juice

After the first four weeks

You can progress onto more solid food, mashed not pureed for 2 weeks. The portion sizes will be the same as above but you do not need to liquidise the food.

Summary of the first 6 weeks following your surgery

- Eat 4-5 small meals per day
- Eat pureed food for the first 4 weeks then mashed for the next 2 weeks
- Pureed food means that the food should have the consistency of baby food or apple sauce
- Drink water between meals; you need extra fluids after your operation. Try to drink 1 pint of fluid more than you usually do. Have this as several small drinks between meals
- Don't eat and drink at the same time
- Avoid fizzy drinks; they can cause pain
- Eat slowly and stop as soon as you feel full. Remember the 20/20/20 rule – Each meal should last for no longer than 20 minutes, bite size no larger than a 20 pence piece, chew each mouthful 20 times and leave 1 minute between each mouthful.
- By following this rule you can reduce the risk of 'something getting stuck'

After the first 6 weeks

You are now ready to continue on your long term eating plan. At six weeks your first band fill is usually done and you will start to feel greater satiety from eating and drinking. Remember you are not just eating small amounts to reduce your calorie intake and lose weight,

but you are aiming for a healthy nutritious eating plan as well.

There are **six golden rules** to follow if you are to gain the greatest benefit from your gastric band:

1. Eat 3 meals per day: your new pouch at the top of your stomach empties slowly through the day. You should be satisfied with eating 3 meals per day without getting hungry between meals. Beware of developing 'grazing' eating patterns of small snacks between meals.

2. Eat healthy, solid food: soft food slips down easily and while this has the benefit of being less likely to block your pouch, you will probably end up eating more over the course of the day. By eating a normal textured diet you will help to stimulate the nerve endings that sit under your band. This in turn sends a message to the brain informing you that you are full and require no more food. These nerve endings are not stimulated in the same way if you have a soft diet.

3. Eat slowly and stop as soon as you feel full: take tiny bites (cut meat up to the size of a pencil-top rubber) and chew each piece thoroughly. Remember the 20/20/20 rule. At some point you will feel full; this may feel like a tightness in the chest. Stop eating and rest for a little while. If you feel hungry a few minutes later, then have a little more.

4. Do not eat between meals: you should not need to eat between meals if you are eating 3 sensible meals per day.

5. Do not drink at mealtimes: liquid speeds up the passage of food through the pouch and ruins the beneficial effect of slowly emptying food from your new stomach pouch. If you have a drink immediately before your meal you may find your stomach is still full and you cannot eat your meal. Avoid fluids half an hour before your meals and one hour afterwards.

6. All drinks should be zero calories: liquids pass through your pouch easily. Calorie-laden drinks including alcohol will simply add calories to your daily intake.

Returning to Work

This is very individual and will depend on the nature of your job. If your job is very strenuous and involves heavy lifting it would be advisable to take up to 2 weeks off.

Driving

We recommend that you check with your insurance company. Most people will be able to drive 1-2 weeks after surgery however; you will need to be able to perform an emergency stop safely.

Exercise

Exercise and the support of others are extremely important to help you lose weight and maintain that loss following bariatric surgery. You can generally resume higher impact exercise 6 weeks after the operation; sooner than that, you can take walks at a comfortable pace and progress as you tolerate. Exercise improves

your metabolism, whilst both exercise and attending a support group can boost your confidence and stay motivated.

A healthy diet

There are five main food groups and a healthy diet comprises a mix of them all:

Protein foods: such as meat, fish, eggs, beans, include two to three 75g portions per day

Milk and dairy: choose low fat cheese and limit the amount to 30-60g portions per day

Fruit and vegetables: try to have 4-5 portions per day. A small glass of unsweetened fruit juice counts as one portion. Salads tend to be easily digested by most people with bands. Vegetables are good and filling as well as nutritious.

Carbohydrates: bread, potatoes and cereals. For most people with a band this food group is the most difficult to digest. Replace soft breads in your diet with granary or wholemeal or crispbreads. One small portion of 60-90g at each meal is about right.

Fats and sugary foods: use a small amount of olive oil for cooking and replace puddings with low fat yoghurt. Beware of calorie-laden foods such as chocolate, sweets or ice cream.

Problem foods

Some foods are not tolerated very well after band placement. This is very individual: some foods may cause problems for one person but not the next. The following list is only a guide:

- Asparagus: cut up very small or blend into soups
- Pineapple: juice is ok, fruit may be difficult to digest
- Rhubarb: cut up very small or puree
- Broccoli: the stalks may be difficult to digest
- Dried fruit: will swell inside your stomach so should be avoided
- Oranges: juice is ok, flesh may be difficult to digest
- Meat: needs to be chopped very small and chewed thoroughly
- Foods such as coconut, crisps and soft white bread are sticky and difficult to digest
- Nuts (e.g. peanuts, almonds, walnuts) and popcorn may also cause obstruction unless they are well chewed to a paste. They are probably best avoided

Vitamin supplements

It is very important to ensure you have a well-balanced healthy diet. We would also recommend the following supplements. If you are experiencing prolonged periods of vomiting you may need further supplements. Also, if you are pregnant you will need to let the bariatric team know and speak with your GP about additional supplements.

| | |
|-------------------------------------|--|
| Multivitamin and mineral supplement | Forceval OR an 'over the counter' complete A-Z multivitamin and mineral supplement, one daily |
| Vitamin D, Iron | Continue with maintenance doses if required |

Blood tests

It is important to have your bloods checked after having a gastric band. If you have had diabetes or raised cholesterol prior to your surgery you may need further blood tests. Your GP will be able to advise you.

| Blood test/procedure | Frequency |
|----------------------|--|
| U+E, LFT, FBC | Monitor yearly and more frequently if there are concerns about your dietary intake |

Healthy Lifestyle choices

There are several long-term habits that you should adopt to get the most out of your surgery. The first post-operative year is a critical time that must be dedicated to changing old behaviours and forming new, lifelong habits. You need to take responsibility for staying in control. Lack of exercise, poorly balanced meals, constant grazing and snacking, and drinking carbonated drinks are frequent causes of not achieving or maintaining weight loss.

To maintain a healthy weight and to prevent weight gain, you must develop and keep healthy eating habits. You will need to be aware of the volume of food that you can tolerate at one time and make healthy food choices to ensure maximum nutrition in minimum volume. A remarkable effect of bariatric surgery is the progressive change in attitudes towards eating. Patients begin to eat to live; they no longer live to eat.

Obesity cripples the body. As weight is lost, the burden on the bones, joints and vascular system is decreased. Given proper nutrition and physical exercise it will heal. The most effective way to heal the body is to exercise. People who successfully maintain their weight exercise daily.

Exercise and the support of others are extremely important to help you lose weight and maintain that loss following bariatric surgery. You can generally resume higher impact exercise 6 weeks after the operation; sooner than that, you can take walks at a comfortable pace and progress as you tolerate. Exercise improves your metabolism, whilst both exercise and attending a support group can boost your confidence and stay motivated.

Support Groups

Weight Management run a support group for patients before and after bariatric surgery: **Weigh Forward group, 2nd Wednesday of each month, 6.30-8pm. (6.30-7pm is for post-operative patients only).** Please ring Weight Management on Plymouth 434623 to confirm venue

BOSPA support group, 2nd Sunday of each month, 1.30pm. Ashtorre Rock Community Centre, Saltash.
Contact details on www.bospauk.org

CONFIRMATION PAGE

It is important for you to have read and understood all the information given to you regarding this procedure. The information will help you make an informed decision, and allow you to proceed with all the information at hand.

Surgery alone is not a quick fix to obesity problems; as such you are effectively entering into a partnership with your bariatric team. We will help and support you through this lifestyle choice, but in return we need to know that you are committed to this pathway.

You will be provided with follow up care by the bariatric team for 6 months and will then be referred back to the weight management team for specialist post-operative care until two years after your surgery. It is important that you attend all of your follow up appointments after surgery.

Once you have read this booklet, take time to think about it and ask questions of the bariatric team. When you are ready, please sign this page to confirm you have completed this important step toward your laparoscopic adjustable gastric banding.

Please bring this booklet with you on the day of your surgery. If we do not have a signed copy of this booklet from you, your surgery may be cancelled

I, confirm that I have read and understood all the information given to me in this book, including the risks of surgery and my responsibilities. I have been given sufficient opportunities to ask questions from the bariatric team, and I believe I am ready for the laparoscopic adjustable gastric banding.

Signed

Date



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Signed

Date

Who to contact

Claire Woods, Bariatric Nurse Specialist

Rachel Griffin, Bariatric Dietitian.

Direct line **01752 431724** – this is an answer phone.

Please leave a message and you will be called back as soon as the message is picked up.

If your query is urgent, phone Derriford Hospital switchboard on 0845 155 8155 and ask them to bleep the Bariatric Nurse.

If your problem is very urgent you will need to attend the Emergency Department (Casualty) at Derriford Hospital

Notes

**This leaflet is available in large print and other
formats and languages.
Contact: Administrator
Tel: 01752 431724**

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