

Obesity and metabolic surgery



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Who is this leaflet for?

This leaflet is for patients who are considering surgery to help them lose weight and improve their weight-related medical conditions. It provides the following information on bariatric surgery:

- when this may be appropriate
- what operations are available
- what is involved
- the possible risks.

Whether you have a gastric band, gastric bypass or sleeve gastrectomy, your weight loss procedure is only the start of your journey. All these procedures are tremendous tools for weight loss and you can lose dramatic amounts of body weight, but it's not entirely effortless. You **do** have to work with it and you **do** need aftercare following obesity surgery.

Is surgery suitable for me?

To lose weight you need to use up more energy than you are taking in through your food intake. However, weight loss can be difficult to achieve and many people struggle to sustain weight loss and improve their health.

Obesity and metabolic surgery is an option for patients who remain morbidly obese despite having tried many diet and exercise programmes or have tried medication to help improve their weight and health. Surgery is not appropriate for all patients, but you may be suitable if:

- your BMI is greater than 40 or
- your BMI is greater than 35 and you have a medical condition eg diabetes or high blood pressure that would be improved by weight loss
- your BMI is greater than 30 and you are a newly diagnosed type 2 diabetic
- you are able to give informed consent
- you are medically fit for major surgery
- you have unsuccessfully tried all other means of losing weight and been unsuccessful in maintaining weight loss

- you have appropriate psychological and social support
- your diet has been deemed safe for surgery and would support good outcomes.

BMI – your body mass index is calculated by dividing your weight in kilograms by your height in meters squared (Kg/m²).

What operations are available?

A number of operations are available for the treatment of obesity. There are three types of obesity surgery operations approved by NICE and available on the NHS. These are:

- laparoscopic adjustable gastric band
- Roux-en-Y gastric bypass
- sleeve gastrectomy.

There is no evidence to say which operation is best in terms of weight loss and quality of life.

Gastric band

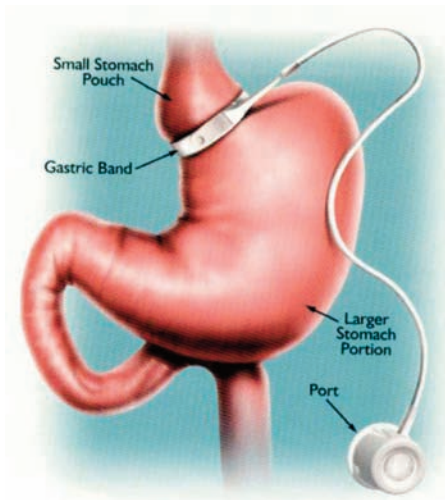
Having a gastric band inserted is one of the least invasive types of obesity and metabolic surgery. This is the only surgical procedure available for weight loss where your stomach or gastrointestinal tract is not cut, stapled or re-routed in any way, which means this procedure is completely reversible. The surgery is always done laparoscopically (keyhole surgery). Most people have this procedure done as a day case (home on the day of surgery). You should be able to return to work and normal activity two weeks later.

Following weight loss there is a reduction in the health risks associated with being obese.

The motivations for gastric band surgery vary from person to person, but patients commonly report:

- significant weight loss
- a long term change in attitude towards healthy eating

- improved health and mobility
- improved mental wellbeing
- boost to self esteem and self confidence.



On average patients can expect to lose around 40- 50% of their excess weight in the two years following their surgery.

How is the gastric band inserted?

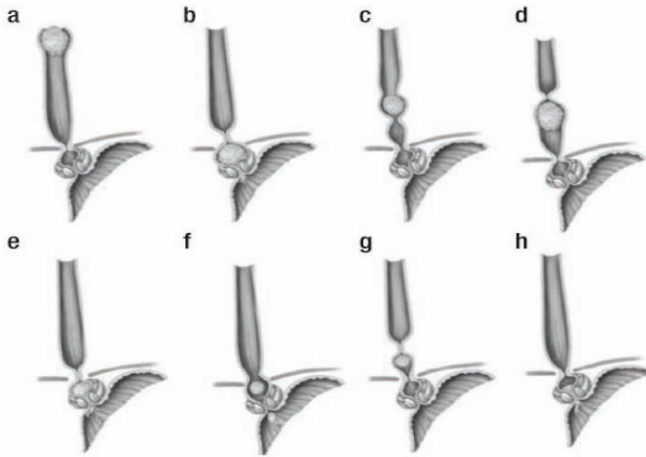
The gastric band is a restrictive procedure. It helps to slow the passage of food that you eat, creating an early feeling of satisfaction.

The band is placed laparoscopically under general anaesthetic. A few small incisions are made in the mid and upper abdomen through which the long, thin laparoscopic instruments are passed.

A small tunnel is made behind the stomach to allow the band to be wrapped around it like a belt, and then locked shut – just as you would apply the safety catch on a bracelet or wristwatch. For extra security the outer layer of the stomach's tissue is then stitched into place over the band. This helps to prevent the band from slipping.

Once the band has been placed, it sits snugly around the top part of the stomach.

How does the band work?



- a) Take a small mouthful of food (the size of a 20 pence piece), chew it twenty times and swallow.
- b) The food will pass through the oesophagus and into the small area of stomach above the band. When the bolus of food hits the band a small amount of the food will go through it. At the point where the food bolus hits the band the nerve fibres and stretch receptors are stimulated, telling your brain via the vagus nerve that food is coming and that you are getting satisfied with what you have eaten.
- c) The remaining food bolus will bounce back up the oesophagus a short way.
- d) It then returns to stimulate the nerve fibres and stretch receptors again.

With a well adjusted band it will take four repeated actions of the food hitting the band and bouncing up and down for that one bolus of food to go through. This process will take around one minute (60 seconds).

After one minute you should be able to take your next small mouthful. It will take around 20-30 minutes for your body to naturally feel satisfied with the amount of food you have eaten. You should never eat for longer than 30 minutes. When you are satisfied with what you have eaten you should get up and throw the remaining food away.

What is the band made of?

The band is made of silicone, which is specifically designed to be placed around the upper part of the stomach. The main benefit of the band is that it can be adjusted through a balloon (like an inner tube) on the inside surface. This is connected by a length of tubing to a port (filling reservoir), which is fixed under the skin below your breastbone.

How is the band adjusted and why is this done?

Band fills increase the degree of firmness with which the band fits around your stomach. This alters the rate at which food can pass through the stoma (the hole between the two parts of the stomach). This means the band can be made tighter by adding fluid and looser by removing fluid.

Around four to six weeks after surgery you will have your first assessment to see if your band needs adjusting. The adjustment is performed with a syringe and huber needle through the access port and is not painful (no anaesthetic is needed). Assessments and band fills are repeated at 4-6 week intervals until you reach the right adjustment for you. This is sometimes called the 'sweet spot'. Having your band at the correct adjustment will mean you will lose weight steadily, about 0.5-1kg per week, and be able to eat a varied diet.

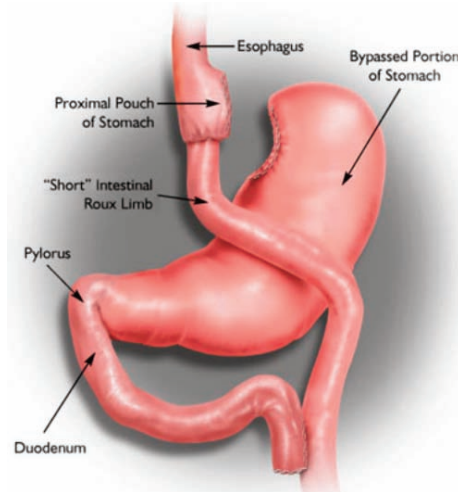
It is important to remember that 'more is not better' when it comes to the amount of fluid you have in your band – it is just as important to not have too much in a band as it is to have the right amount. Too much fluid in your band can limit the foods you are able to eat.

Gastric bypass

The gastric bypass creates a small stomach pouch in the same way as the gastric band. Instead of food passing into your stomach, it bypasses the remainder of stomach and much of your bowel, creating a new path for the food that goes through into your bowel.

Although each patient is unique, there are a number of positive effects of losing weight which are commonly experienced:

- reduction in the health risks associated with obesity
- improved health and mobility
- improved mental wellbeing
- boost to self-esteem and self confidence.



The procedure is carried out laparoscopically (keyhole surgery), through five or six small incisions (cuts) in your abdomen. The procedure isn't easily reversible. It is a major surgical procedure and carries greater risks of complications than that of gastric banding.

Weight loss occurs because:

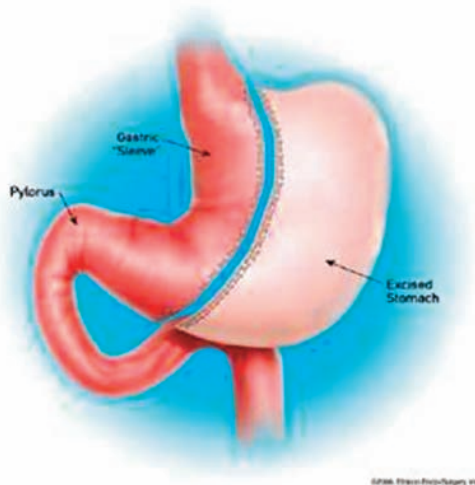
- you feel full after eating only a small amount of food
- food digestion and absorption is reduced
- the balance of your gut hormones changes, making you feel much less hungry, reducing your desire to eat.

Sleeve gastrectomy

This is an operation to make your stomach smaller, reducing the amount of food it can hold. This operation is usually carried out laparoscopically (keyhole surgery) through five or six small (0.5 – 1 cm) cuts in your tummy wall. In a small number of people this approach is not possible and surgeons sometimes have to convert to performing the operation through a larger cut (open surgery). It is a major surgical procedure and carries greater risks of complications than that of gastric banding.

The main benefit of sleeve gastrectomy surgery is its ability to help patients lose a significant amount of weight. Although each patient is unique, there are a number of positive effects of losing weight which are commonly experienced:

- reduction in the health risks associated with obesity
- improved health and mobility
- improved mental wellbeing



- boost to self esteem and self confidence

The operation reduces the size of your stomach by around 75%, creating a narrow tube. This is done by stapling down the stomach and removing the remainder of the stomach.

How does the sleeve gastrectomy work?

The new stomach only has the capacity to hold up to 200ml of fluid at any one time. This means that the amount of food you will be able to eat will be much smaller. The new small stomach still works in the same way but will feel full quicker.

Removing this part of your stomach also changes the pattern of hormones released before and after eating. This change results in you feeling much less hungry before or between meals and also makes you feel satisfied for longer after eating small meals.

What are the possible risks and complications of these operations?

The decision to undergo surgery is not one to be made lightly, and non-surgical options to lose weight must always be explored first. As with any operation, problems can occur. With this type of surgery, your weight and any existing medical conditions will mean there is a significant risk of complications, including:

Complication	Adjustable Gastric Band	Roux en Y Gastric Bypass	Sleeve Gastrectomy
Blood clots in your legs called DVT (deep vein thrombosis)	Yes	Yes	Yes
Blood clots in your lungs called PE (pulmonary embolus)	Yes	Yes	Yes
Infections of the wounds	Yes	Yes	Yes
Anastomotic leak (a leak from the join of the bowel that was made during the operation)	No	Yes	Yes
Bleeding	Yes	Yes	Yes
The risk from having an anaesthetic	Yes	Yes (longer anaesthetic time)	Yes (longer anaesthetic time)

Complication	Adjustable Gastric Band	Roux en Y Gastric Bypass	Sleeve Gastrectomy
Vitamin and mineral deficiencies – leading to long term problems	No	Yes	Yes
Some hair loss can happen due to the rapid rate of weight loss initial.	No	Yes	Yes
Gastric Band Slippage	Yes	No	No
Gastric Band Erosion	Yes	No	No
Internal Hernia	No	Yes	No

What is the expected outcome?

Surgery is not a quick fix, nor is it an easy option; it is only one part of the weight loss package. You must follow a healthy diet afterwards, as any type of surgery can be overcome. You should consider the surgery as a fresh start.

Following the surgery, and by sticking to a balanced diet plan, you could expect:

Procedure	Excess Weight Loss	Average length of time to achieve weight loss
Gastric Band	40-50%	2 years
Gastric Bypass	70%	1 year
Sleeve Gastrectomy	50-70%	1-2 years

However, the evidence available suggests all procedures have a similar weight loss result in the longer term.

Illness due to or made worse by obesity eg Type 2 diabetes or high blood pressure could be improved, put into remission or even cured in 50 – 80 % of patients.

What preparation is needed before the operation?

Before you have surgery you will be seen by the multidisciplinary team (MDT) (surgeon, dietitian, anaesthetist and specialist nurse). This is to assess whether you have any medical or psychological reasons for your weight gain and to ensure that surgery is a safe and successful option for you. All medical and psychological issues raised during your assessment will have to be investigated and treated as appropriate before continuing with surgery. If the MDT did not raise any concerns you will be added to the waiting list for surgery. The aim is to get all patients through surgery within 18 weeks of being added to the list.

Who are the multidisciplinary team?

- **The surgeon(s)** have had extensive training in bariatric surgery to safely undertake this procedure. They will assess you to see if you are suitable for them to operate on safely and offer you advice to help you make an informed decision about the type of operation you choose to have to assist you with your weight loss.
- **The anaesthetist(s)** have been specially trained to treat obese people and will look carefully at your medical history and the results of the tests that have been performed (eg blood tests, X-rays and ECGs). If you develop any sort of cough or cold or become unwell in the week before your operation it is important to let us know immediately so that your operation can be postponed until you are better.
- **The dietitians** have specialist knowledge to help you change your diet and eating pattern to ensure you get the best result possible out of your surgery. The dietitians work in both the weight management and bariatric service and will be familiar to you. Listening to and putting their advice into practice will help you be successful in your weight loss journey.
- **The bariatric nurse specialists** have specialist knowledge of the procedures and will be your support throughout your surgical experience and beyond into the future. The specialist nurse runs a pre-operative education session giving you all the information needed and an opportunity to ask questions for you to make an informed decision as to which operation would suit you best. The nurse will also be your contact after your operation and will undertake your follow up.

Once you have been offered a surgical treatment for your morbid obesity, it is not an excuse to sit back and forget about eating sensibly. Any weight you can lose through eating healthily before your operation is an advantage, as it will make the surgery easier and help reduce the risks associated with it.

How do I prepare for my operation?

- **Oestrogen containing medications** – if you are taking any medications containing oestrogen (eg the contraceptive pill or HRT) they must be stopped for at least 4 weeks before your surgery to reduce the risk of developing a blood clot.
- **Stop smoking** – this surgery represents a turning point in your life, so if you are a smoker, now is an excellent time to give up. Smokers are much more prone to experiencing problems with anaesthetics and recovery from surgery. Smokers, please stop for at least one month prior to your surgery. This really does make a big difference to the anaesthetic.
- **Medications** – immediately after surgery there may be some swelling at the top of your stomach where the operation takes place. To prevent any normal medications getting stuck, before your surgery see your GP to get them changed into liquid, chewable or crushable forms. This will make sure that you remain medically well following your operation. To help your GP our pharmacy information service produces a letter advising them what preparations are available for the medications you take.
- **Liver reduction diet** – it is vitally important that for two weeks before your surgery you follow a very restricted diet. The reason for following one of the diets below is to reduce the size of your liver, which will ensure that the operation can be done by the laparoscopic (keyhole) method. If your liver is too big, we will not be able to complete the operation.

How does the liver-reducing diet work?

This diet will encourage your body to reduce its glycogen stores – glycogen is a form of sugar stored in the liver and muscles for energy. Releasing this energy store will result in your liver temporarily shrinking, making it easier for the surgeons to carry out the operation. You may lose a lot of weight that week, but it will be mainly water loss. Please continue to drink water throughout the day to ensure good rehydration. You will need to follow the diet for at least two weeks before your operation. There is no need to follow it after your operation.

You will need to replace your normal diet with one of the following options:

Milk – up to four pints of semi-skimmed milk per day.

You can flavour this with no added sugar milkshake syrup or instant coffee as desired.

or

Yoghurt – up to 8 standard yoghurt pots per day.

This should be a low-fat and low-sugar variety. Examples include: Muller Light, Shape Zero, Activia 0% or 0% Greek or Natural yogurt.

With both options you may also include a savoury drink such as stock, Bovril or Marmite and one pint size sugar-free jelly per day.

It is important you have enough to drink. Please aim for two litres per day. This can include water, no-added-sugar squash, fruit and herbal teas, tea and coffee (with no sugar).

You should also take a vitamin and mineral supplement, such as Centrum Advanced, Sanatogen Complete, or a supermarket own brand A-Z.

If you have special dietary needs, or are lactose intolerant, please contact the Bariatric Nurses on 07789 615828.

Who should I tell about my surgery?

For many patients the big question is who should they tell about the surgery? Your immediate family and close friends should know, as they will want to support you over the period of the operation and after. There will certainly be days when you will feel more emotional about your decision to have the surgery. Sometimes a diary of your progress with your treatment will be helpful, and it is good to start out with some photographs of yourself at the time of your operation, to visually see your weight loss over the coming weeks and months.

Should I join a patient support group?

This is a very important aspect of your care from the time you make the decision to have this surgery, right through the years during which you are losing weight and maintaining your weight loss. Talking to people who have been through the same experience is the best way of gaining support and finding out the most important details. They know far better than any member of the multidisciplinary team what it is really like to undertake this journey. We can put you in contact with patients that have had surgery who are happy to talk to you about their experience. You can join our Facebook group which is a secret group. Please follow the access information on page 25.

Your hospital stay

What will happen on admission to hospital?

You will be admitted to Theatre Direct on the morning of your surgery and then transferred to either Pendennis ward, Critical Care unit or back to Theatre Direct (if you are a day case) after your operation. Even if you are having your procedure as a day case, it is advisable to bring an overnight bag with you just in case.

A suggested list of items to bring into hospital with you includes:

- freshly laundered sleepwear and dressing gown
- slippers
- any medications you are currently taking
- spectacles
- toiletries.

Please do not bring any valuables or large sums of cash in with you.

When planning for your clothing to wear home, choose clothes which are comfortable and loose, and flat shoes.

Prior to your admission, remove all:

- nail varnish from finger and toe nails, this includes any form of false nails
- rings and piercings (wedding rings can be left on and will be taped before you go to theatre).

Before your operation you will be given a pair of anti-embolic stockings to wear to help decrease the risk of blood clots forming in your legs or lungs. You will need to wear these for two weeks after your operation.

You will not be allowed to eat (this includes sucking sweet or chewing gum), from the night before your surgery. **We suggest that you drink one pint of fluid just before 6am on the day of surgery.** This will help to keep you hydrated as you may not go to theatre until the afternoon.

The surgeon and anaesthetist will visit you before your operation to answer any remaining questions that you may have and to check that you have signed the consent form for the operation.

What happens when I go to theatre?

You will be given a theatre gown to wear that opens at the back. You will walk from Theatre Direct to the operating theatre (so make sure you take a dressing gown and slippers to hospital with you).

In the operating theatre it may feel as though there are many people buzzing around, and busy doing things to you – don't worry, you are in excellent hands. Before going to sleep, you will be asked to breathe in oxygen. A drip will be inserted into your hand or arm and various other items including an oxygen saturation monitor (a peg on your finger) and a blood pressure cuff put in place.

What happens immediately after the operation?

You will wake up in the recovery room, where they will give you a blood thinning injection (into your abdomen) to help prevent clots forming. Once you are awake enough you will be transferred to the ward.

You will notice that you are still connected to a number of medical devices, including drip, oxygen mask and blood pressure cuff, this is entirely normal. For the first few hours after surgery you will be closely monitored – your blood pressure and pulse will be checked frequently.

Once you are back on the ward you will be able to start taking fluids, and you will be encouraged to stand up and move around as soon as you are able – within 1-2 hours of the operation. This is important to help prevent blood clots forming. You will also be encouraged to take deep breaths and do coughing and breathing exercises. Once you are drinking OK your drip will be removed. The cannula will be removed before you go home.

Will I have any pain or discomfort?

Most patients find that the operation is not as painful as they expected it to be. In fact most find that the pain settles with simple paracetamol, which is given in dissolvable form. Once home, if you need to take anything for discomfort or pain, soluble paracetamol is recommended.

Because your abdomen is inflated with gas to perform the operation laparoscopically, some small amounts of gas may remain and will disperse during the week after surgery. You may experience discomfort from this gas under your diaphragm or as a pain in your shoulder. Moving around will help to relieve this discomfort, which will ease within a few days.

How long will I stay in hospital?

Providing there are no complications and your pre-existing medical conditions are stable, you can expect to stay in hospital as follows:

- gastric band – day case (no overnight stay needed)
- gastric bypass – overnight
- sleeve gastrectomy – overnight.

What can I do to help my recovery?

You will be encouraged to:

- co-operate with health care professionals including nurses, physiotherapists and dietitians.
- do breathing exercises as shown by your physiotherapist and nurses
- fidget – move your feet, legs and buttocks to improve circulation and reduce the risk of DVTs or pressure sores.
- sit in a chair rather than lie in bed, and get moving as soon as possible (within hours of your operation).

What happens when I go home?

When you are discharged from hospital you will be taking the following medications:

- Zoton Fastab (Lansoprazole)– this is a medicine that works to reduce the amount of stomach acid that you produce, and you will need to continue taking this for one month for anyone having a band and three months for bypass and sleeve. Take it first thing in the morning with food.
- Dalteparin (Fragmin) – this is a blood thinning injection which needs to be self administered for seven days after your operation. You will be instructed on how to do this.
- A-Z Multivitamin and mineral – this should be taken for life. Initially this will need to be in a liquid chewable or crushable form.

All your normal medications will need to be crushed, chewed or taken in liquid form for the first 4-6 weeks until you are back to eating healthy solid food. This is to reduce the risk of choking immediately after your operation due to any swelling at the top of your stomach.

If you are diabetic the bariatric nurse will advise you what to do with your medications and monitoring your blood glucose levels initially following your operation. If you do not have a blood glucose monitor to monitor your blood sugars you will need one for the liver reduction diet and after your operation. Please speak to your GP or practice nurse about getting one to use and instructions on how to use it.

The five-six small wounds on your abdomen will be covered with waterproof dressings. Leave these in place for seven days (only change if the wound is oozing or the dressing has lifted off and is no longer waterproof). By that time the wounds are usually healed enough to remain uncovered. Any stitches that are used will dissolve.

Our bariatric nurse specialist will ring you during the first week after your operation. During this call, you can discuss any concerns that you may have, or you can phone us if you feel your concern needs addressing earlier. If a face to face review is required this can be arranged with you. After this time you can phone to discuss any concerns you have.

The first six weeks after your operation

Will I notice a weight loss in the first six weeks following my surgery?

Everyone loses weight at differing rates, so don't become disheartened if you don't shed as much weight as someone else who has had the same procedure. Some people even notice a slight weight gain as they have stopped the liver reducing diet; the weight gain is often the regaining of the fluid balance. It is important to keep away from the scales at this time, and use the accurate clinic scales to monitor and record your post-op weight loss progress.

The main focus of your eating in the first six weeks is to ensure the consistency of your food is such that you allow the operation to heal.

How long will recovery take?

We advise return to work as being:

- gastric band – two weeks
- gastric bypass – four weeks
- sleeve gastrectomy – four weeks.

This is a general guide, and will depend on how you feel following your surgery, and how physical your job is.

What can I eat after bariatric surgery?

With all types of bariatric surgery, you need to allow the changes made to settle down. To allow this to happen there is a 6-8 weeks dietary progression plan (see table below) – this will be explained in greater detail in the post-surgery booklet for each operation.

It will take 6-8 weeks after bariatric surgery before you will be eating 'normal' solid, textured food again. By gradually progressing from liquids to textured foods your body has time to recover and you can adjust to new eating habits.

Stage of dietary progression	Gastric band	Gastric bypass and Sleeve gastrectomy
Liquid	N/A	First 2 weeks
Pureed	First 4 weeks	Weeks 3 and 4
Soft/Mashed	Weeks 5 and 6	Weeks 5 and 6
Normal-textured foods	After 6 weeks	After 6-8 weeks

What happens after six weeks?

Surgery is only the first step to losing the weight. To succeed, you will need to make positive changes to your diet, activity and lifestyle. You must make a serious commitment to do this.

Will I need to take dietary supplements?

Yes, you will need to take life-long supplements to ensure you remain healthy. The table overleaf explains what you need to take.

Other supplements may need to be added to your medications as your blood tests dictate – your GP will prescribe for you.

What do I need to remember after bariatric surgery?

Each person can tolerate different foods. To get the most out of your surgery, and achieve the best weight loss results, you will need to follow these rules:

Eat three small, regular meals each day:

Do not over-eat – if you feel nauseous, stop eating. One extra mouthful of food after these early signals could lead to pain, discomfort and vomiting.

If you need to have a snack, choose a healthy option, eg a piece of fruit or a small pot of yoghurt. Avoid 'grazing' throughout the day as this can lead to consuming more calories than you realise and result in poor weight loss.

Supplements	Gastric Band	Gastric Bypass and Sleeve Gastrectomy
Complete A-Z multivitamin and mineral	Forceval 1 tablet a day or 2 tablets of an over the counter Complete Adult A-Z Multivitamin and mineral	Forceval 1 tablet a day or 2 tablets of an over the counter Complete Adult A-Z Multivitamin and mineral
Calcium with Vitamin D	N/A	Calcichew D3 forte one tablet three times per day, or an over the counter calcium and vitamin D supplement (containing a minimum of 1200mg calcium and 20ug vitamin D).
Iron supplement	N/A	200 mg ferrous sulphate once a day or 210 mg ferrous fumarate once a day. For menstruating ladies this should be increased to twice daily.
B12 injection	N/A	This is recommended from six months after your operation, then every three months for life.

Limit snacking between meals – if you work shifts or have long gaps between meals you may need to have a snack. Make sure you choose nutritious foods and keep portions small. Try not to have high energy foods like chocolate, crisps or biscuits as they do not provide essential nutrients and are not satisfying. Fruit is an excellent snack and will help you achieve your 5-a-day.

Eat slowly and chew food well – stop as soon as you feel satisfied.

Take small mouthfuls and monitor how you feel during your meal. Aim to make each meal last between 20-30 minutes. Eating quickly will usually mean your portions will become larger and you will not lose weight. It can also cause pain, discomfort and vomiting. Explain to others why you must eat slowly so they don't rush you. After 30 minutes throw away any food left on your plate or wrap up and store safely for another meal.

To help you eat your meals at the right pace it is recommended that you chew each small bite 20 times then pause for 60 seconds before taking the next bite. Place your knife and fork down between each mouthful and always eat your meals from a tea plate or small bowl.

Eat healthy, normal texture foods – in the weeks following your operation you are advised to eat softer foods to allow your stomach to heal. It is important that you do not rush this. Long term effectiveness of the surgery relies on you eating normal solid food. Soft foods can move through your stomach pouch with more ease, which may lead to you eating more over the course of the day.

Focus on nutritious foods – you will need to have a balanced diet to provide your body with the right nutrients to stay healthy. Choose foods from the following foods groups:

- lean meats, fish, eggs, beans, lentils and Quorn for protein and minerals
- fruits and vegetables for vitamins and fibre
- low fat dairy foods for calcium and protein
- wholegrain carbohydrates for energy, vitamins and fibre
- limit foods that are high in fat (eg butter, pastry, cream, gravies and sauces, chips) and sugar (eg chocolate, biscuits, sweets and sugary drinks).

Do not drink with, or immediately before, your meals – drinking immediately before eating (less than 30 minutes) will fill you up and you will not be able to eat enough. It may also over-fill your stomach, causing pain. Drinking with your meal may speed up the passage of food through your stomach. For the same reason, avoid fluids for half an hour after you have eaten.

Drinks should be calorie-free or low-calorie – alcohol, regular squash, milkshakes, fruit juices and smoothies all contain a lot of calories and slip through your stomach pouch easily. You should be getting your calories from foods rather than fluids.

Aim to drink 8-10 glasses of calorie-free/low-calorie fluids each day – drinking adequate fluids can help prevent dehydration and constipation.

Examples include:

- water
- sugar-free squash or no-added-sugar squash
- tea or coffee with semi-skimmed or skimmed milk
- fruit teas and herbal teas
- fresh fruit juices and low-fat milk can be included as part of a balanced diet. Limit fruit juice to 150 ml each day.

Why is activity so important after surgery?

Activity:

- maximizes your weight loss
- helps your circulation
- reduces the risk of blood clots forming
- helps breathing and coughing, thereby reducing the risk of chest infection
- improves your mood by producing endorphins (the feel good chemicals) into your body
- increases muscle mass, keeping you fit
- helps to alleviate constipation
- reduces the risk of pressure sores.

Will I need to attend follow up appointments?

By undergoing a bariatric procedure you have committed yourself to long term follow up. To make the surgery successful it is vital for you to attend these appointments. We cannot help you if you do not keep in contact with us.

Follow up after surgery	Gastric Band	Gastric Bypass	Sleeve Gastrectomy
Within 6 months of surgery	Every 4-6 weeks	6, 12 weeks 6 months	6, 12 weeks, 6 months
6 -12 months	Every 6-12 weeks	12 months	12 months
12 months – 2 years	12 weeks or as required	18 months, 2 years	18 months, 2 years

Gastric band

Your follow up will be with the specialist nurses.

Your band was put in at the operation in a completely un-filled state and fluid can be injected into the port if needed. To check that the band is not too tight you will be given a glass of water to drink immediately after the fill. Your band may need a number of adjustments until you reach the 'sweet spot' at which you are losing weight, able to eat small solid meals. Dietitian appointments will be arranged as required.

Gastric bypass and sleeve gastrectomy

You will need to arrange to have blood tests at your GP surgery a week prior to your follow up appointments to check your blood counts, liver functions, vitamin and mineral levels. At these appointments we check that your blood results are satisfactory and you have the advice and support you need from our multidisciplinary team as we monitor your weight loss.

Your first appointment will be with the surgeon who performed your operation. Subsequent appointments will be with one of the bariatric nurses. The dietitians will review you around 12 weeks and 12 months after your operation and then as required. At around 12 months you will be referred back to one of the endocrinologists from the weight management clinic to monitor and advise on any pre-existing medical conditions that may need a change to your current treatments.

As part of the follow up process you will need to book in with your GP surgery to have blood tests at 3, 6, 12, 18 and 24 months, then yearly for life. These tests are:

Complete blood count	Liver function tests
HbA1C (diabetics only)	Creatinine
Electrolytes (including magnesium)	Ferritin
Vitamin B12 (just before the injection)	Folate
Calcium	Intact PTH
Albumin/prealbumin	CRP
Lipid profile:	Total cholesterol, LDL, HDL, triglycerides

What is life like after bariatric surgery?

It may take a little while to adapt to the changes in your body, and to change habits of a previous lifetime.

Once you commit to having bariatric surgery, the momentum you gain as you lose weight and become healthier serve as a further incentive to maintain your focus on continuing to adopt new eating habits to serve you in the long term. To achieve and maintain weight loss you will need to put in a lot of hard work that will need you to surround yourself with a supportive environment throughout.

Further sources of information and support

Cornwall Obesity and Metabolic Surgery Service facebook group:
Search for jeremygilbert.comss – he will friend you and add you to the private group.

Weight loss surgery information and support : www.wlsinfo.org.uk/

National obesity forum:

www.nationalobesityforum.org.uk/apps/content/html/ViewContent.aspx?fid=1542

Contact us

If you would like to speak to a health professional prior to your appointment, please ring the Bariatric Nurse Specialists on **07789 615828** or **01872 252133**.

If you would like this leaflet in large print, braille, audio version or in another language, please contact the Patient Advice and Liaison Service (PALS) on 01872 252793

