



Spire

Hull & East Riding Hospital

A patient's guide to weight loss surgery at Spire Hull and East Riding Hospital

Looking after you.

Contents

| | |
|--------------------------------------------------------------------|----|
| Weight loss at Spire Hull and East Riding Hospital | 3 |
| The benefits of weight loss..... | 4 |
| A guide to weight loss surgery..... | 5 |
| Risks associated with bariatric procedures..... | 7 |
| Liver reduction plan..... | 9 |
| Post-operative care and discharge information..... | 11 |
| Eating and drinking after the operation (the first six weeks)..... | 15 |
| How to puree foods | 18 |
| Planning your days intake | 11 |
| Long-term eating habits | 19 |
| Frequently asked questions..... | 21 |
| Useful contacts..... | 27 |

Weight loss surgery at Spire Hull and East Riding Hospital

Spire Hull and East Riding Hospital is one of the UK's leading weight loss surgery providers. It has a dedicated bariatric service that will provide all the advice, guidance and support that you require.

Initial enquiry

The aim of this session is to provide you with all of the information required to make an informed decision. Suitable treatment options will be discussed and we can answer any queries or concerns with regards to possible surgery. On receipt of your enquiry/referral you will be invited to attend a free consultation with the specialist nurse or consultant.

Surgical consultation

If you decide you would like to take things further, we can arrange for you to meet with one of our experienced surgeons. This appointment gives you a further opportunity to discuss any queries or concerns relating to potential surgery.

Dietitian consultation

Following your consultation with the surgeon you will then have an appointment with the dietitian to discuss the diet and lifestyle changes required post surgery and answer any questions that you might have. A further follow up with the surgeon will then be arranged and you will be given a date for your surgery.

Psychology consultation

Your consultant may ask you to attend an appointment with the psychology team. This is very common and helps make sure you are fully prepared for surgery.

Pre-assessment

Your safety is of upmost importance and therefore a pre-assessment involves reviewing your past and current medical conditions. This will ensure you are physically well enough to undergo bariatric surgery.

Surgery and discharge

You will be admitted to Spire Hull and East Riding Hospital on the day of your surgery. You will be discharged when you are clinically well; usually a one to two night stay.

Aftercare

Your aftercare is just as important as the surgery, therefore please ensure that you attend all follow-up appointments. The bariatric team is here to help, so please feel free to contact us at any time regarding any queries or concerns that you may have.

Our follow up appointment schedule is split between your consultant and dietitian but you will be seen roughly at four weeks, six weeks, 12 weeks, six months and 12 months post operatively.

The benefits of weight loss

Losing weight can improve life expectancy. It can dramatically reduce symptoms and many of the risks commonly associated with increased body weight, such as:

- Arthritis and joint problems including backache
- Breathlessness: asthma and chronic obstructive pulmonary disease (COPD)
- Cerebral vascular accident (stroke)
- Gallbladder disease
- Gastro-oesophageal reflux disease (GORD)
- Heart attack, angina and heart failure
- High blood pressure
- High cholesterol (hyperlipidaemia)
- Infertility and polycystic ovarian syndrome (PCOS)
- Obesity related cancers, such as colon, prostate, gallbladder, breast cancer
- Sleep apnoea and obesity related sleep disorders
- Type 2 diabetes

Weight loss can lead to an additional improvement in well being and quality of life.

Psychological health can be improved by:

- Improving confidence
- Increasing self belief
- Reducing depression

A guide to weight loss surgery

Sleeve gastrectomy

- Your surgeon uses staples to divide your stomach into two parts
- The surgeon makes one part into a narrow tube (banana shaped). This will carry the food
- The other side of the stomach is no longer used so it is removed
- When you eat, the food goes into the narrow tube and leaves through your intestine (the tube that takes food away from your stomach) as normal
- The tube can only take a few ounces of food. This means you should feel full sooner than usual. You will need to stop eating once you feel full
- The size of the stomach is reduced by about 75%

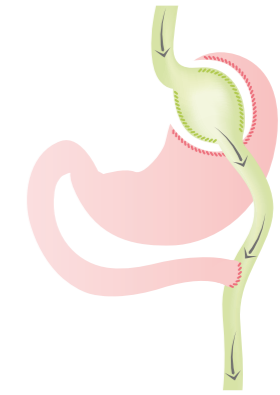


ROUX-EN-Y gastric bypass

A gastric bypass works in three ways to help you lose weight:

- A small stomach pouch is created which reduces the amount of food you can eat (restriction)
- Food leaves the new stomach pouch through a new opening and bypasses the rest of the stomach and much of your small intestine – this means that less calories are absorbed as the food passes through your body (malabsorption)

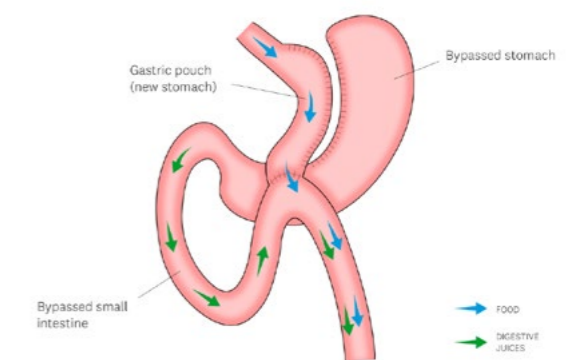
- If you eat a large quantity of sugar, the body responds by overproducing insulin which makes you feel light-headed and queasy. – this acts as a deterrent from over-eating the wrong types of food (commonly referred to as dumping syndrome)



Single loop gastric bypass

A single loop gastric bypass is a slightly different procedure to the Roux-En-Y gastric bypass.

- This involves the creation of a longer, thinner stomach and gastric pouch, joining a single loop (around 1.5 metres) of small bowel to the new stomach. Food and fluid bypass the original stomach and part of the small bowel
- Weight loss occurs due to the amount of food you can eat (restriction), less calories are absorbed (Malabsorption), and changes to the actions of gut hormones in the bowel
- This procedure is only suitable for certain patients. Your consultant will discuss with you whether this is an option you may want to consider



Gastric balloon

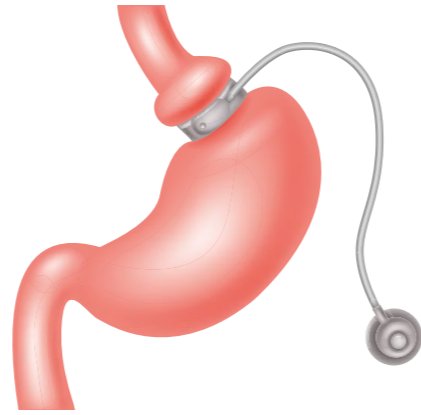
The gastric balloon is a temporary, non-surgical weight loss procedure. A soft silicone balloon is inserted by passing a tube from your mouth into your stomach. The balloon is then filled with between 400 – 700ml of sterile fluid. The tube is then removed. The balloon remains in your stomach for a period of six to twelve months. After six to twelve months the balloon is removed by the same means in which it was placed. The balloon assists with your portion size. It does not make changes to your food choices or assist with snacking or grazing.



Gastric band

The gastric band is a long term surgical procedure that is often recommended for individuals who have a Body Mass Index (BMI) between 30 – 40Kg/m².

The Gastric Band is completed Laparoscopically under general anaesthetic. The adjustable gastric band is placed around the upper part of the stomach. This creates a new smaller stomach pouch above the band, with a small opening that leads to the larger part of the stomach below. The band is attached to a tube that enables the inner surface of the band to be filled with saline. The volume of fluid can be adjusted depending on individual requirements. This is referred to as a gastric band adjustment. The band creates a constant pressure that helps reduce appetite and making you feel satisfied and full after a smaller quantity of food.



Gastric band adjustment

At five to six weeks post surgery you will have your first band adjustment. This is performed under X-ray. This ensures that the band is in the correct position and that it is safe to start inflating the band.

The traffic light system will be explained to you to help you and the team identify as and when you require future Band adjustments.

The ideal fill allows you to consume a small solid meal, creating a feeling of fullness with steady weight loss.

If your band is overfilled you will need to have fluid removed as this can cause long term complications.

| YELLOW ZONE | GREEN ZONE | RED ZONE |
|----------------|---------------------|----------------|
| Band too loose | Optimal restriction | Band too tight |

Could I have insufficient weight loss?

All bariatric procedures are a tool to assist with weight loss. The procedure alone does not guarantee success. You need to commit to dietary, behavioural and lifestyle changes to maximise your results.

Risks associated with bariatric procedures

There are risks associated with any type of procedure. While the likelihood of complication is low, there are some complications that you need to be aware of. These may include:

Ulceration to the surgical joins

To reduce risk of ulceration after surgery, certain medication, for example anti-inflammatory medications (ibuprofen) should be stopped. If you take any such medications routinely, you must discuss this with the team and your GP who can advise you with safe alternatives.

Wound infection

This is rare after laparoscopic surgery. Your laparoscopic incisions are closed using internal dissolvable sutures and glue or steri-strips on the skins surface. They should heal within 7 to 10 days. The ward staff will advise on wound care.

If one or more of the wounds become inflamed, hot, painful or discoloured fluid is coming from your wound, contact your GP or the Bariatric Department for a same day emergency appointment. If symptoms do not improve after 48 hours, contact your GP for review as a different type of antibiotic may be required.

Clots in the legs and/or lungs

To minimise the risk of this occurring, you will be given elastic stockings to wear prior to surgery and will be advised to keep them on for two weeks post-surgery; wearing them day or night. Therefore you should be discharged with a spare pair to wash.

You will also receive a small injection to thin your blood before surgery and will be sent home on a course of injections for a minimum of five days (a nurse will show you how to administer this injection yourself).

Gastro-oesophageal reflux disease (GORD)

Some patients might develop gastro-oesophageal reflux disease (GORD) after restrictive operations

(more likely with sleeve gastrectomy). This is more likely to occur if you stretch your stomach by eating too much or too quickly. Adjusting your eating habits and taking medications to reduce stomach acidity tends to help. In extremely rare instances your surgeon might have to consider conversion to gastric bypass.

If you already suffer with GORD, then a sleeve gastrectomy might not be the best choice, although reflux does improve in some patients with weight loss. If your surgeon detects a hiatus hernia at the time of sleeve gastrectomy, this may be repaired at the time of your sleeve gastrectomy, or if deemed safer, at a later date. This in turn could bring about improvements in your reflux symptoms.

Stenosis

A small proportion of patients may develop a stenosis (healing with abnormal narrowing) to a surgical join within, which later may require dilatation with a balloon using a camera (a gastroscope).

Gastric leak risk

There is a small risk of gastric leak from the newly-formed staple line along the stomach. This is tested routinely near the end of the operation by using a special blue dye to make sure that it is water-tight. A leak is a serious complication and you would require care in a hospital.

Herniation

Herniation after surgery is rare but can occur in bypass surgery. Defects, where potential herniation could occur due to the changes in your anatomy, are routinely closed to minimise risk.

Sometimes hernias do occur and this is one of the reasons we monitor you in hospital overnight after surgery. If a hernia does occur, you may require a scan to determine management.

Internal bleeding

If a bleed is suspected often the body will correct this.

However if bleeding is severe, you may require a longer stay in hospital with a possible blood transfusion. Or you may require an emergency operation to find and stem off the bleed and/or remove any blood collection within. Although it should be noted, these cases are rare.

Mortality rate

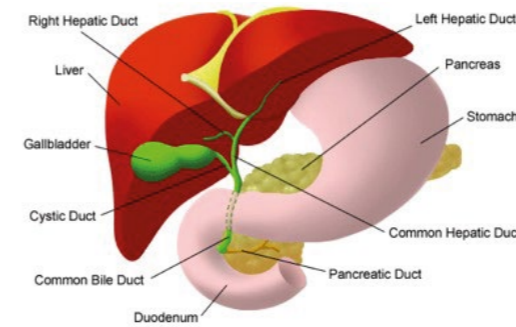
The national mortality rate is 0.08% for bariatric procedures (within 30 days Hospital Episode Statistics HES data 2009-2016). The risk of complications and death depends on several factors and your surgeon will discuss it with you at consultation.

Smoking

Smoking increases risks especially that of ulceration long term. People who smoke will not be offered a bypass surgery due to this risk. You must stop for a minimum of 6 weeks before surgery; otherwise your operation will be cancelled on the day.

Liver reduction plan

Excess weight can cause the liver to become fatty, enlarged and fragile. This can cause complications such as bleeding from the liver during surgery. If the liver is too large, it makes it difficult for the surgeon to see the stomach and this can lead to conversion to an open procedure or in some cases surgery is abandoned. Following a liver reduction plan gives the surgeon better accessibility to the stomach and improved visibility all of which reduce the risk of complications.



A liver reduction plan is high in protein but low in calories, fat, sugar and starchy carbohydrates (bread, pasta, rice and potato).

A reduction in sugar and carbohydrates decreases the amount of glycogen (a sugar) that is stored in the liver. With each ounce of glycogen used from the liver, three to four ounces of water is lost as well. Much of your weight loss is fluid loss rather than true weight loss and therefore you will notice an increase in urination, this is a good sign and shows that the liver reduction plan is working.

The length of time on the liver reduction plan is two weeks. Speak with your bariatric team to ascertain how long to follow the plan.

There are several different forms of liver reduction plan. Your bariatric provider will give you specific guidance on which one to follow. Some centres use a strict milk diet, others meal replacement drinks and some use modified eating plans. Regardless of which plan you follow they will give similar results.

Whilst following a liver reduction plan it is advisable to buy an over the counter vitamin and mineral supplement such as Sanatogen A-Z, Tesco's complete vitamin and mineral supplement or Holland and Barrett ABC plus.

Patient's own medication

If you have diabetes you should discuss this with your GP or specialist nurse before starting the liver reduction plan as you may need to make changes to your medications or monitor your blood glucose levels more closely. Your regular prescription medication generally does not need to be changed to liquid or soluble.

Option 1: Liquid based liver reduction plan

| | |
|-------------------|--------------------------------------------------------------------|
| Breakfast | 250ml of semi-skimmed milk or 250ml homemade latte |
| Mid morning | 250ml semi-skimmed milk |
| Lunch | Yogurt <100kcal, 250ml of semi-skimmed milk |
| Mid afternoon | 250ml of semi-skimmed milk or 250ml homemade latte |
| Evening meal | Yogurt <100kcal, 250ml of semi-skimmed milk |
| Before bed | 250ml semi-skimmed milk |
| Additional fluids | Tea, coffee, sugar free diluted juice, flavoured water, herbal tea |
| Unlimited food | Sugar free jelly |

Option 2: Food based liver reduction plan

| | |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Choose one of the following | Porridge 27g sachet (no syrup or honey). Wholemeal/ brown toast x1 with scrambled egg. Weetabix x1 with semi-skimmed milk. Cereal (4 tbsp) with semi-skimmed milk. Mushroom omelette. Toast with one boiled egg. Three crisp breads with low fat cream cheese or cottage cheese. |
| Choose one of the following | Soup with one slice brown bread. Ham or mushroom omelette (two eggs) with salad. Jacket potato with cottage cheese (100g) or tuna (one small tin). Ham bagel x1 with soft low fat cheese and salad. Sardines (90g) in tomato with toast x1. One small pita bread with three slices of chicken or ham and salad. Scrambled egg with one slice of toast. One small tortilla with three slices of ham, chicken, or beef and salad. |
| Choose one of the following | Three slices of chicken breast with 2 tbsp cooked boiled rice or couscous. Bolognese sauce (1 cup) with 4 tbsp minced meat and 2 cooked tbsp pasta. One small chicken breast with two boiled potato or 2 tbsp mash with vegetables. Bolognese sauce (200g) with 5 tbsp of quorn mince. One small fillet of salmon, cod, haddock, with vegetable or salad. Chilli with 2 tbsp cooked boiled rice and vegetables. One small jacket potato with ½ tin tuna and salad. Mushroom and onion omelette made with two eggs. Scrambled egg x2 with one slice toast. One small tin of beans with one slice of bread. |
| Salad and vegetables | One portion of salad or vegetables should be the size of a cereal bowl. Suitable vegetables or salad include mushrooms, peppers, onions, celery, spinach, courgette, broccoli, aubergine, green salad, sprouts, lettuce, cucumber, broccoli and cauliflower, leek. |
| Snacks (2 per day) | Low fat/ low sugar yoghurt. Piece of fruit (apple, pear, banana, kiwi fruit, melon, or orange). Sugar free jelly (unlimited). |
| Fluids | Water/ no added sugar diluted drink. Tea or coffee. |

Option 3: Meal replacement shakes

This approach consist of mainly liquid formulas suppling around 800 calories (kcal) per day. There are many companies that make these liquid formulas which contain a balance of nutrients that your body needs. Some companies provide options of sweet and savory products, which consist mainly of shakes and soups. depending on the calorie content of the product, you will need 3 – 4 per day. It is important you check the label and do not exceed 800kcal in total.

Post-operative care and discharge information

Post-operative care

Post-operative trapped wind

Most patients report excess wind for a number of days post laparoscopic surgery due to small pockets of gas becoming trapped in the abdomen at the end of the operation. This can become very painful if not treated appropriately. Pain can be felt across the upper abdomen into the shoulders. Increasing mobility will speed up the rate the gas is absorbed from the abdomen and using peppermint or fennel tea will help relieve symptoms. Belching and breaking wind is a good sign as it means the trapped wind is escaping from the body.

Dehydration

As fluid intake is reduced following all bariatric surgery it is important to ensure you drink at least two litres of fluid every day to reduce the risks of dehydration and constipation. A good marker is the colour of your urine – if the colour is dark and cloudy you will need to increase your fluid intake. Urine should be a pale straw colour.

Tiredness and lethargy

Post-surgery tiredness can be common. Your body is used to functioning on a much higher quantity of calories and protein and does not like the initial loss that occurs following surgery. This is only temporary and will resolve as your dietary intake improves. Small frequent meals are recommended to ensure you have a steady supply of energy throughout the day.

Gastric spasm

Some patients experience griping pain in the upper abdomen, nausea, and occasionally vomiting in the weeks following surgery. The symptoms are generally related to food intake but can become a problem if not well managed. If these symptoms are present for a few days without resolving please contact the bariatric team.

Vitamin, mineral, and nutritional supplement

Following surgery you may be at increased risk of nutritional deficiencies. A varied intake of foods will help but you will also require additional nutritional supplements. Nutritional supplements that may be prescribed include a general multivitamin and mineral, iron, and calcium supplementation along with B12 injections.

Vitamin B12 supplementation

Patients who undergo bariatric surgery where removal or division of the stomach occurs can be at increased risk of vitamin B12 deficiency. This is due to the reduction in intrinsic factor (a chemical in the stomach) which enables the body to absorb vitamin B12 from the diet. Following your surgery, your consultant may recommend that your GP commences Vitamin B12 injections every three months.

Steatorrhoea (only applicable to bypass patients)

Steatorrhoea (fatty stools) are a result of excess fat in the diet. This results in urgency and foul smelling, pale coloured stools that float in the toilet. Fats would normally be absorbed in the first part of the bowel (duodenum) which is bypassed during surgery. As food no-longer enters the duodenum, fat is not absorbed fully and will pass through the body without being digested.

Deep breathing

Following surgery, particularly abdominal/thoracic surgery, there is a tendency not to breathe as deeply because of pain. It is important to breathe deeply to clear the chest of any phlegm and to reduce dizziness and nausea and the risk of chest complications and infections. Every half hour try to breathe in and out deeply five times. Breathe into your abdomen rather than your shoulders.

Coughing and wound support

Most people feel the need to cough or clear their throat after surgery, it is quite safe and the stitches will not burst. Sit up in bed, bend your knees and press firmly over the incision site. Press a pillow or rolled up towel over the incision site, cough or huff. Repeat this process for laughing, sneezing and bowel movements.

Circulation

Simple exercise will help to maintain good circulation.

- Move feet up and down
- Circle feet in both directions
- Gently bend and straighten knees
- Bend both knees; gently roll from side to side

Repeat each exercise five to ten times every half an hour. You may also need to wear support stockings for up to two weeks after your surgery.

Getting out of bed

Bend your knees and roll onto your side keeping your knees together. Push yourself into a sitting position with your elbow and opposite hand whilst allowing your legs to swing to the floor. It is common to feel light headed when you first get out of bed so sit and repeat your breathing exercises and ensure any dizziness has passed before attempting to stand. Reverse the process to return to bed.

Contraception after surgery

Ovulation and periods can recommence with weight loss and unplanned pregnancies have occurred. Please use appropriate contraception before and following surgery. We advocate the use of the mirena coil. If you use a contraceptive

pill, we cannot guarantee that it will give the same contraceptive effect after surgery. The use of other contraceptives such as condoms should also be considered.

If you are suffering with heavy flow periods, consult your GP as uncontrolled iron loss may cause problems.

Becoming pregnant after surgery

Obesity can cause infertility, but following weight loss surgery ovulation and periods can recommence. Pregnancy is safe after surgery because weight loss can reduce the risk of miscarriages, high blood pressure and diabetes.

However patients are advised not to get pregnant for the first 12 months after surgery (ideally 24 months). This is to allow weight loss to slow down and for a regular eating pattern to be established. It is important to note that oral contraceptives may not be effective after surgery and therefore alternative methods should be considered.

If you are thinking about becoming pregnant or become pregnant, it is advised you consult your dietitian and GP to ensure that you are having all the nutrients you and your baby require. It is also advised you seek medical advice on the medications you are taking to ensure they are suitable for pregnancy.

There is no reason why you should not have a normal delivery and be able to breast feed after surgery.

You may need to have your band adjusted or deflated during pregnancy depending on how your pregnancy impacts your ability to eat and drink. **Alteration to your vitamin and mineral supplements is usually necessary.**

Dumping syndrome

This is a term used to describe a number of symptoms including; sweating, faintness, palpitations, diarrhoea, nausea and abdominal distension. The main cause is sugar and sugary foods. Dumping syndrome can be described as either early or late dumping. This syndrome is only usually associated with gastric bypass and duodenal switch.

Early dumping syndrome

This occurs 30 minutes to one hour after eating. It occurs when concentrated sugar passes rapidly from the stomach into the jejunum. The body responds by diluting this sugar with fluid. This can lead to fullness, cramping and diarrhoea. The loss of water from bodily tissue can produce a temporary drop in blood pressure, fatigue, dizziness and fainting.

Late dumping syndrome

This occurs two to three hours after eating and is caused by rapid absorption of sugar into the bloodstream producing a high blood sugar, which signals the body to produce more insulin. This then lowers blood sugar levels and can result in a feeling of weakness, hunger and rapid heart rate.

How to avoid dumping syndrome

Try to avoid high sugar foods and drinks, processed foods with hidden sugars, eating quickly or drinking with a meal. If symptoms continue please discuss this with your dietitian.

Discharge from hospital

The majority of patients are discharged the day after their operation. If you live alone or a long distance from the hospital, you will remain in hospital for two nights. You will only be discharged home when clinically stable. Following discharge you should continue to take your regular medication, unless advised otherwise by your consultant/nurse.

Discharge medication

Paracetamol 500mg two tablets dissolved in water can be taken four times a day. You should not require analgesia after two weeks, by this time you should be back to your pre-operative normal.

With Gastric bypass and sleeve gastrectomy patients will be provided FastTabs Lansoprazole 30mg tablets to be taken once a day for four weeks.. They dissolve in the mouth and reduce the amount of stomach acid that you produce, protecting the sutured areas of your stomach from ulceration.

Self-administration of low molecular weight heparin (LMWH)

LMWH contains an active ingredient called Enoxaparin, used to help prevent blood clots forming during or after an operation. People who undergo bariatric surgery are at higher risk and the National Institute for Health and Clinical Excellence (NICE) recommends LMWH for a period of time following their operation, depending on the patients' past medical history, to reduce the risk. Other measures, such as compression stockings and becoming active as soon as possible are also advised.

LMWH needs to be given as an injection into the subcutaneous layer of the skin, the tissue between your skin and muscle. While you are in hospital, your nurse will give you your injection and teach you how to administer the injection yourself when you go home. On your discharge home we will supply you with pre-filled syringes and a sharps box to dispose of them safely. As with all medicines, there are possible side effects, including in this case bleeding, discomfort and irritation at the injection site. This usually resolves within 20 minutes. Less commonly, LMWH can reduce the number of platelets in your blood, which help blood to clot quickly. This condition is called thrombocytopenia. It is normally mild and doesn't cause any symptoms but can occasionally require treatment.

If you notice any bruising or bleeding from your surgical sites or elsewhere, please contact the hospital immediately so we can arrange a blood test to check your platelet levels. You should inform your doctor and specialist nurse of all your

medication to ensure it is appropriate for you. If you have concerns about this medication please ask for more information from the nurse, who will ask the pharmacist to visit you.



Eating and drinking after the operation (the first six weeks)

After your operation it is important that you adhere to the following simple dietary rules to avoid the problems that may otherwise arise. These guidelines try to make your recovery as smooth as possible and to help you to get the maximum benefit from surgery. To get the full benefit from the procedure, the operation should mark the start of a healthier way of life for you. The operation should be regarded as just one of a number of permanent changes that can help you to achieve a healthier, happier and longer life.

Introduction

Immediately after the operation there will be some swelling around the stitches so initially you need to have only liquids. During the first few weeks even a couple of teaspoons of food will make you feel full.

With time the stomach pouch and its opening relaxes – allowing you to eat larger amounts of more solid food. There will always be a restriction in what you can eat at a mealtime. With time you will get used to how much you can tolerate and eat at one meal.

One of the major benefits of this surgery is that the feeling of fullness will help suppress your appetite.

You will find that hunger pains are a thing of the past. You will still be able to enjoy your food but adopting a sensible and healthy eating pattern ensures that you get the most from the surgery.

Right from the start it is important to adopt good eating habits. It is very important to realise that the body will take time to adapt to the changes of the operation and it is wrong to rush ahead through the different stages, which are described later. It is much better to progress slowly so you do not need to go back a step.

Eating too much or the wrong type of food will cause bloating, discomfort and occasionally sickness, but this can be avoided by following the advice given in this section. There is a lot of trial

and error and if a particular food does not agree with you, avoid it and try it again a couple of weeks later and it will probably be fine. Long-term, food intolerances are very uncommon.

The first one-two days after surgery

On returning to the ward from theatre, you will be started on sips of water. The team will let you know when you can progress onto larger volumes. In the first day or two, you will be offered a clear soup. If you can tolerate this, then you can move onto the liquid stage.

| Diet Stage | Balloon | Band | Sleeve | Bypass |
|------------|---------|-------------|-------------|-------------|
| Liquid | 1 week | 2 weeks | 2 weeks | 2 weeks |
| Puree | 1 week | 1 – 2 weeks | 2 – 4 weeks | 2 – 4 weeks |
| Soft | 1 week | 1 – 2 weeks | 2 weeks | 2 weeks |

Three stage diet

It is important not to rush through these stages. These times are a guide only. If you feel that you need longer on any stage that is fine; try progressing to the next stage after a few extra days.

Food

It is essential not to get into bad eating habits after the surgery. Initially you will only be able to take liquids but when you move on to food, try to eat four to six small meals each day. This is to ensure that you eat all of the essential nutrients, avoid deficiencies and help the wound to heal.

As your food becomes more solid and you are able to eat a little more at each main meal, try to cut out snacks between meals. Get into the habit of eating at regular meal times. Eat until you are comfortably full and leave what is left. This food should be discarded and not returned to later. You will not be hungry but there is always a temptation to return to food after a while when there is a bit

of space in the stomach pouch. This bad habit can lapse into what we call grazing – nibbling on food throughout the day. When

people graze, it tends to be on entirely the wrong sorts of food – high calorie, high fat foods such as crisps or peanuts. Avoid this at all costs as it will slow down the rate at which you lose weight.

Fluids

It is best not to drink while eating, but to drink between meals. It is important to drink plenty of fluids but not the high calorie varieties such as ordinary fizzy drinks and squashes and full fat milk. The operation restricts solid food but you can drink reasonably freely after it. Before the operation, much of the water that your body obtained was in

food. Now that the amount of food you can eat is much reduced, you must compensate by drinking at least an extra 500mls of water each day. If you fail to do this, you may become dehydrated or constipated; if this happens, take more fluids, and it should settle.

Alcohol

Remember that alcohol is very high in calories and although you can drink approximately six to eight weeks post-surgery, it should be sparingly. As alcohol will enter the intestine very quickly after the operation, it will be absorbed rapidly making you more susceptible to its intoxicating effects. Therefore you need to take care and avoid driving after any alcohol.

Stage one – liquid stage

Following the operation you are advised to take liquids only. This will be necessary for at least two weeks. You will be started on sips of fluid and this will be increased to free fluids within a day or two. You will still only have room for a small amount of liquid at one time, so drink slowly and take plenty of time between swallows.

Most patients are discharged from hospital after one to two days so you will still be taking liquids when you first get home. Try to have a variety of liquids to ensure an adequate intake of protein (aim for at least 60g per day), vitamins and minerals. Do not have too much tea and coffee as these are not very nutritious, can cause constipation and reduce the absorption of essential nutrients. Avoid fizzy drinks, as they will make you feel bloated. The consistency in these two weeks should be like a thin liquid. Please do not use straws.

Each day you should aim to take two litres (2000mls) of liquids to prevent dehydration and constipation. Keep a record of your fluid intake for the first few days to ensure you are drinking enough. All your fluids should be as nutritious as possible.

Suitable liquids to take for first two weeks

- Milk and milkshake made with skimmed milk (you can make your milk richer in protein by adding four tablespoons of skimmed milk powder, eg Marvel or other similar products, to one pint of milk) milk alternatives such as soya, almond, rice, etc can be used if needed
- Milk
- Meal replacement shakes
- Protein shake
- Protein water
- Smooth soup
- Ready brek
- Water
- No added sugar/ sugar free squash or cordial
- Bovril, Oxo
- Clear soup
- Sieved, thin soup (high protein preferably)
- Tea, coffee, herbal or fruit tea
- Malted drinks – low calorie
- Yoghurt

Avoid: Fizzy drinks, high calorie drinks and alcohol.



| Example | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-----------------|--------|---------|-----------|----------|--------|----------|--------|
| 200ml | | | | | | | |
| 150mls | | | | | | | |
| 200mls | | | | | | | |
| 250mls | | | | | | | |
| 200mls | | | | | | | |
| 200mls | | | | | | | |
| 150mls | | | | | | | |
| 200mls | | | | | | | |
| 200mls | | | | | | | |
| 250mls | | | | | | | |
| Total = 2000mls | | | | | | | |

Stage two – pureed stage

After two weeks on liquids, you can progress onto a pureed diet. Pureed food is necessary to avoid blocking the opening from the stomach.

Pureed food has the consistency of apple sauce. It should be smooth, moist with no bits. Initially, you may only be able to have one-two teaspoons, in total, of pureed food at each meal, before feeling full. You may be able to have a little more. Do not exceed two tablespoons. If you try to eat a portion that is too large or too thick it may cause discomfort or even vomiting. As you progress through the pureed stage, you will be able to tolerate a greater range of foods and eat larger quantities.

The following points should be kept in mind:

- Since you are unable to eat a large amount of food at one time, it is necessary to eat three meals and have three milk drinks per day
- Try to eat a wide variety of pureed foods to ensure you have an adequate supply of nutrients including protein, fluid, vitamins and minerals
- Foods high in protein such as low fat dairy, meat, fish and pulse vegetables are very important to aid the healing process after surgery and should be taken in the recommended amounts each day
- If you find it difficult to eat pureed meat or fish, have more of the protein as milk or dairy products
- **Do not drink fluid** with the food, as it will fill up your stomach too much
- Take fluids between meals only and sip these slowly. Keep up with your current fluid intake of two litres a day
- Eat slowly and stop eating as soon as you feel full; that extra spoonful might be too much
- If you have problems with a particular food stop eating it for a few days and then try again

- Many people find fish and eggs difficult to start with; so don't worry if you cannot get on with these foods initially
- You may find that your tastes change after the operation and you no longer enjoy food that you used to like. Experiment with other foods as you may now like them
- Pureed food can be very bland. After the first week use herbs and spices to make it more interesting
- You can freeze small portions of pureed meat, fish, or soup in little pots for convenience.
Try using ice cube trays for freezing small portions of vegetables and fruit
- Do not add butter or cream to your pureed foods as this can cause diarrhoea and slow down the rate of weight loss

How to puree foods

Soups

Puree any nourishing tinned soup such as lentil or pea and ham. You can make your own soups by liquidising stock with cooked vegetables and seasoning. Try to include some pulses (eg lentils, split peas or beans) or meat to boost the protein content.

Meat and fish

Remove all skin, bones, and gristle from cooked meat or fish before liquidising. Use stock, gravy or milk to give a smooth consistency.

Vegetables

Cook all vegetables before liquidising. Some softer vegetables will liquidise on their own, but others will need some stock or milk adding. The best ones to start off with are carrots, broccoli and parsnips.

Fruit

All fruit will liquidise well if skins are removed. Soft fresh fruit such as strawberries or peaches will liquidise without adding extra fluid. Cooked fruit or tinned can be liquidised with its juice. If extra fluid is needed, try adding water or yoghurt.

Drinks

You should drink at least eight cups of fluid each day. Have your drinks between meals so they do not overfill your stomach. Low calorie drinks such as water and low calorie squash are best.

Suitable desserts

- Sugar free jelly
- Smooth high protein yoghurt
- Stewed/ tinned fruit in juice (pureed)

Sample menu for puree stage

Breakfast

Two tablespoons pureed cooked porridge
One tablespoon pureed or mashed banana

Mid-morning

One high protein yoghurt

Lunch

250ml pureed soup containing lentils, beans or meat

Mid-afternoon

1/3 pint semi-skimmed milk

Evening meal

One tablespoon thin, smooth mashed potato
One tablespoon pureed carrots
Two tablespoons pureed meat

Supper

One tablespoon pureed fruit
1/3 pint semi-skimmed milk

During the day

Have 1/3 pint semi-skimmed milk

Remember to drink fluids between meals

Foods to avoid

These foods will not liquidise properly so avoid them.

- Dry or tough meat/fish and skins
- Ordinary bread and toast
- Most breakfast cereals
- Raw or salad vegetables
- Cooked celery or stringy green beans
- Fruit pips, seed, pith
- Dried fruit
- Biscuits, crackers, crisps and nuts
- Sweets and chocolate
- Pastry dishes
- Eggs

When you feel comfortable with pureed food you can start to introduce soft food into your diet. This is usually about four to six weeks after your operation.

Planning your days intake

Each day you should eat foods from the following groups:

Protein group (meat, fish, dairy):

Initially, try to eat at least three servings per day and build up to six servings per day.

One serving is:

- 1oz/25g pureed meat (Two tablespoons) eg mince or finely chopped meat in gravy
- Casseroles or stew with gravy/chicken supreme/cream sauce
- 1oz/25g pureed fish (fresh or tinned) eg White fish with a sauce/cheese/parsley sauce or fish in a bag
- Fish pie
- Tinned salmon or tuna
- 2oz/50g smooth soft meat or fish pate
- 1oz/25g cheese grated in cheese sauce
- 1oz/25g cream cheese/cottage cheese
- 1/3 pint milk
- One smooth high protein yoghurt

Fruit and vegetables group:

Initially, try to eat at least two servings per day and build up to four servings per day.

One serving is:

- 100ml vegetable juice
- One tablespoon pureed vegetable, eg carrots, cauliflower, green beans, cabbage, swede, turnip, courgette
- 100ml unsweetened fruit juice
- One tablespoon pureed stewed fruit with sweetener if necessary
- One tablespoon pureed fresh soft fruit, eg bananas, strawberries, raspberries
- One pot/ sachet fruit puree (baby food)

Carbohydrate (starch) group:

Initially, try to eat at least two servings per day and build up to three servings per day.

One serving is:

- 250ml pureed soup, lentil or potato based
- Two tablespoons pureed cooked porridge
- ½ breakfast biscuit made soggy with milk
- One tablespoon pureed potato/ sweet potato/ plantain
- One tablespoon instant potato
- One tablespoon pureed pulses
- One tablespoon pureed tinned pasta eg spaghetti, macaroni cheese
- One tablespoon of pureed rice

Stage three – soft stage

- When introducing any new food, always chew it well and eat slowly, giving each mouthful a chance to go down before trying the next one
- Each meal should take at least 15 minutes to eat
- If the food does not agree with you, continue with pureed foods for a few days
- Continue to take your vitamins and minerals each day
- Drink plenty of fluids but continue to take fluid in between meals only and sip slowly
- Avoid sugar and do not eat sweets or chocolates
- Continue to have three small meals per day with milk drinks in between if necessary
- Continue to have three to six portions of protein, including some of the new foods, as well as two to four portions of fruit and vegetables and two to three portions of carbohydrates from the pureed stage

The progression from pureed food to a normal diet moves through three levels, gradually introducing solid foods starting with the easiest to digest. As you tolerate each level you progress until you can eat most normal foods.

Level one foods

These are very soft foods that you should find the easiest to start with. They should be easy to mash with a fork.

- Soft cooked egg: poached or scrambled
- Cottage cheese: 2oz/ 50g
- Tender fish: 1oz/ 25g
- Finely minced meat: 1oz/ 25g
- The meat and fish may be easier to eat if in a sauce or gravy
- Mashed potato and vegetables

If these foods cause no vomiting, heartburn or indigestion, move on to level two foods, and then gradually to level three foods.

Level two foods

- Casserole: 2oz/ 50g
- Two slices tinned meat
- Eggs: omelette
- Cooked vegetables
- 250 ml soup (not liquidized)
- One tablespoon tinned fruit in natural juice (drained) after natural juice or soft fruit (not pureed)

Level three foods – solids

- Tender chicken, turkey, beef, pork, lamb: 1oz/ 25g
- Cheese
- Bread toasted only, one slice (leave un-toasted bread until the very end.)
- Raw fruit, eg one small peeled apple
- Small cup of breakfast cereal, eg bran flakes
- Three tablespoons cooked rice or pasta
- Raw vegetables
- Salads.
- Some foods particularly soft doughy bread and red meats such as steak may take longer to tolerate, and you may never be able to eat very much of them. Persevere with challenging textures and you should be able to eat most foods after three to four months

- When you are able to eat solid food you should be aiming to follow a healthy eating pattern with three meals a day, avoiding high fat and high sugar foods and drinks
- You will find your own tolerance level for food
- Sometimes a food is tolerated one day and not the next day. This is quite normal
- Remember to include a variety of foods in your diet and keep trying different things
- You still need to take fluids between meals rather than with meals. Aim for two litres daily
- Continue to take your vitamins, minerals and antacids each day
- Take care with alcohol – it is high in calories, rapidly absorbed which causes you to become intoxicated more easily. It is not advisable to drink alcohol until a normal textured diet has been established

Things to avoid:

- Foods high in sugar, eg sweets and chocolates
- Foods high in fat, eg fried food, take-aways snack food like peanuts and crisps
- Drinks high in calories eg milk shakes, full fat milk and fruit juice

These foods may cause discomfort and diarrhoea and will make it more difficult to reach your target weight. Most patients note that the desire for such foods is very much less after the surgery

Eating technique

Remember “20”

- 20p coin sized bites of food (5p if struggling)
- 20 chews per bite (or until the food is pulp)
- 20 seconds rest between bites
- Stop eating after 20 minutes
- Stop drinking 20 minutes before food (longer if possible)
- Do not drink for 20 minutes after food (longer if possible)

Also:

- Ensure you have a good upright posture whilst eating, ie sit at a table
- Put cutlery down between mouthfuls. This helps to slow down your eating
- Use a small side plate to help keep portion size small
- Using small cutlery may help

Long-term eating habits

It is important that you try to eat healthily in the long-term. Although initially you may lose weight even when eating high fat, high sugar meals and snacks, this will not continue. The patients who are most successful are those who change their eating habits to include low fat healthy foods such as more fruit and vegetables. These patients tend to lose weight more quickly, achieve their target weight and, more importantly, keep the weight off for life.

Planning and preparation

Lack of planning and preparation is one of the main reasons why weight loss fails. Preparing a

shopping list, planning your evening meals for the week and preparing readily available healthy snacks are useful ways to ensure you stay on track with your weight loss programme.



Shopping

When shopping for food we tend to buy the same few foods every week and vary our diet very little. When making your lifestyle changes it is a good idea to plan your shopping list before you go. This will help you to only buy the more healthy foods you need. Work out roughly what your meal plan is for the week and make your shopping list to that. The following are a good few basic items to have in your store cupboard:

- Spray oil
- Oil-free dressing

- Low fat mayonnaise/salad dressing
- Herbs and spices
- Crispbreads/crackers
- Breakfast cereal
- Rice and/or cous cous
- Pasta and/or noodles
- Baked beans
- Canned tomatoes
- Canned fish

Food labels

Try to choose low fat and low sugar foods and drinks. Always look at the amounts of fat and sugar 'per 100g'.

Or look at the 'traffic light' system on the front of the packaging to find out if the product is low, medium or high in fat and sugar.

| | Low | High |
|----------------------|------------|---------------|
| Total sugar per 100g | 5g or less | 17.5g or more |
| Total fat per 100g | 3g or less | 22.5g or more |

Traffic light system

| All measures per 100g | Low A healthier choice | Medium Ok sometimes | High Only on special occasion |
|-----------------------|---------------------------|------------------------|----------------------------------|
| Sugars | 5g or less | 5.1 – 15g | More than 15g |
| Fat | 3g or less | 3.1 – 20g | More than 20g |
| Saturates | 1.5g or less | 1.6 – 5g | More than 5g |
| Salt | 0.30g or less | 0.31 – 1.5g | More than 1.5g |

Frequently asked questions

How much weight will I lose?

| Type of Surgery | Average % excess weight lost at two years after surgery |
|-----------------|---------------------------------------------------------|
| Band | 50 – 65% |
| Sleeve | 70 – 80% |
| Bypass | 70 – 80% |

Will I have weight regain?

Patients may regain weight in the long term if they continue to overeat. Overeating causes the stomach pouch to stretch and reduces the restrictive effect of the procedure.

What should I do if I experience vomiting?

Eating too fast, too much, or food that is too solid may cause vomiting. If it contains blood (which is extremely rare) call your GP immediately. If it contains pieces of food, you may not have pureed or chewed your food sufficiently. Sickness can also

occur if you are not eating enough – if you starve yourself you burn off fat too fast and this causes chemicals called ketones to build up in your body and make you feel sick. Remember to eat small meals at regular intervals. If you are sick, return to soups and fluids for a day and then restart pureed food. Make sure you keep taking your antacid but stop taking other supplements for a week. If it continues, stay on fluids and contact your doctor, as you may need a change in medication.

What should I do if I have diarrhoea?

Bowels normally return to normal after the operation, although diarrhoea is not uncommon to start with. This usually settles as you restart solids. If it does not settle or it returns, look carefully at what you are eating. The most common reason is eating foods high in sugar (sweets, chocolates, sweet drinks or sugar added to food), or food that is high in fat (crisps, snack foods, chips, fried foods, cheese and fatty meals). Make sure you drink extra fluid if you do have diarrhoea until it settles, but avoid sugary drinks. If your bowel motions become

fatty, yellow and difficult to flush, this is always due to eating too much fat, which has exceeded the body's ability to absorb it. It will settle if your diet is adjusted.

What should I do if I get constipated?

This maybe due to drinking insufficient fluids, or drinking too much fluid that contains diuretics such as tea, coffee or alcohol. The solution is to drink more fluids, avoid tea and coffee rather than to take laxatives. If they are necessary, do not choose a senna type. You could try natural remedies such as linseeds. Start with one teaspoon and increase to a maximum of two tablespoons, You may want to mix this into food items such as breakfast cereals or soups.

Will I 'overshoot' and become too thin?

This has not been a problem with patients. The operation has been designed to reduce the calorie intake to a level that is adequate to nourish the patient.

What is the follow-up after surgery?

Follow-up is usually after four to six weeks, three months, five months, 12 months, 18 months and two years. Your lifetime commitment after surgery is to control weight and alter habits. It is recommended that you ask your doctor to check your bloods once a year for any deficiencies. You should also continue to take the supplements.

Will I have trouble with gallstones?

After the surgery, rapid weight loss can cause the production of gallstones in approximately one in ten of patients who may then need treatment.

Will I loose skin?

When weight is lost quickly the body loses muscle, fat and water. This means there is the potential to get loose skin. Once the surgical wounds have healed, it is advisable to build up an exercise routine to include cardiovascular exercise and toning to help minimise the loose skin. Some patients will decide to have plastic surgery, but this is not recommended until weight loss is complete and you are nutritionally stable.

Physical activity

Many people imagine physical activity as taking up jogging or joining a gym. This doesn't have to be the case. Physical activity such as walking to the shops or work, taking a lunchtime walk or using stairs instead of lifts, can be incorporated into your daily routine. Or you may prefer something like a dance class, swimming, cycling or even just dancing round your living room to your favourite music. Being more active can:

- Help with your weight loss
- Change your body shape
- Make you feel energised
- Release stress and tension
- Boost confidence; improve your mood and self-esteem

The key is building up your physical activity levels gradually if it has been some time since you were last active.

Week 1 – 2

Add 10 – 15 minutes physical activity to your daily routines every other day over the next two weeks.

Week 3 – 4

Gradually add in more minutes of activity so that you have 20 – 25 minutes of active time over the course of most days.

Week 5+

Add more minutes so that on most days you have a total of 30 minutes of activity.

When can I start driving again?

You can resume driving approximately two weeks post surgery when all your wounds are healed, you can carry out an emergency stop and you are no longer on strong pain killers. Always check with your insurance provider as they may have their own policies.

When can I return to work?

Most people can return to work two to three weeks following their operation.

When can I fly?

It is safe to fly a few weeks after surgery but is not recommended until you are fully weaned back onto solid foods at approximately six weeks. Some patients with a gastric band think that their band might explode if they go on an aeroplane. This is not the case; the band is completely safe when you fly though you should not fly for a period of time immediately following surgery. Please ask the bariatric team for more advice.

Will weight loss affect my hair, skin and nails?

After bariatric surgery some patients find that their hair starts to fall out at a greater rate than previously and that their nails become dry and flaky. This is usually due to the rapid nature of the weight loss and is only temporary during the first year post surgery.

It is important to take your multivitamin and mineral supplement every day and eat plenty of protein. If you are concerned about this please talk to your dietitian.

What blood tests should I have once discharged from the hospital?

You should have an annual blood test at your GP practice. These tests should include

All surgeries

- Urea and electrolytes
- Liver and renal function tests
- Full blood count
- Ferritin
- Folate
- Vitamin D
- Calcium

Additional tests for sleeve and bypass

- Vitamin b12
- Zinc
- Copper
- Selenium

For further information please refer to page 27, Useful contacts.

| Symptoms | Possible cause | Action |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High temperature, heart palpitations (fast heart rate), pale complexion (ashen), clammy, severe abdominal pain | Leakage from the internal stitches causing internal infection Emergency situation | <ul style="list-style-type: none"> – Phone 999 and attend your local accident and emergency department – Telephone the bariatric team |
| Vomiting blood and/or passing black tar like bowel motion, fast heart rate, abdominal pain | Bleeding from the internal stitches Emergency situation | <ul style="list-style-type: none"> – Phone 999 and attend your local accident and emergency department – Telephone the bariatric team |
| Inability to tolerate fluids, vomiting and nausea, diarrhoea, intermittent abdominal pain, cramp like pain Late symptoms High temperature and fast heart rate, constipation and no bowel motion or wind | Obstruction of stomach pouch or small bowel Emergency situation | <ul style="list-style-type: none"> – Phone 999 and attend your local accident and emergency – Telephone the emergency helpline bariatric team |
| Pain in one calf made worse when the ankle is flexed, heavy ache in calf, hot skin on calf, redness and swelling of the calf | Blood clot in the legs (DVT) Emergency situation | <ul style="list-style-type: none"> – Attend your local accident and emergency department – Telephone bariatric team |
| Sudden onset of severe breathlessness, pain on inhalation (breathing in), palpitations | Blood clot in the lungs (PE) Emergency situation | <ul style="list-style-type: none"> – Phone 999 and attend your local accident and emergency department – Telephone the bariatric team |

| Symptoms | Possible cause | Action |
|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Significant bleeding from wounds and/or extensive bruising around wounds, swelling and hot to the touch | Leak in minor blood vessels in soft tissue of the abdomen Blood clot under the skin | <ul style="list-style-type: none"> – Telephone the bariatric team |
| Any unexplained significant change in your general health | | <ul style="list-style-type: none"> – Telephone the bariatric team – Make an urgent appointment with your GP for review – If in doubt dial 999 and attend your local accident and emergency department |

Useful contacts

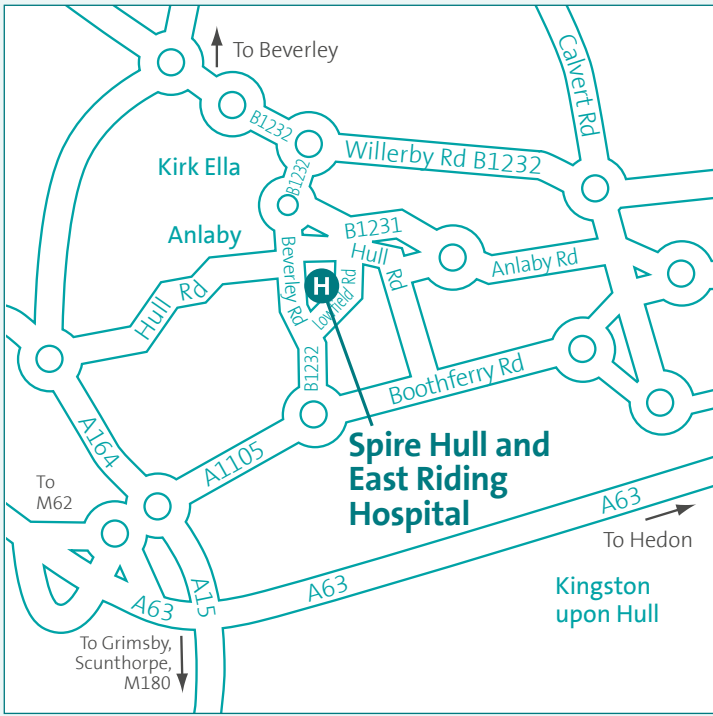
Weight Loss Surgery Information and Support
www.wlsinfo.org.uk

British Obesity and Metabolic Surgery Society
www.bomss.org

Weight Loss Resources UK
www.weightlossresources.co.uk

www.diabetes.co.uk

www.spirehull.com



Your local private hospital

Spire Hull and East Riding Hospital

Lowfield Road
Anlaby
Hull
East Yorkshire
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For more information

Search 'Spire Hull & East Riding Hospital'

Call 01482 659 471

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