What is weight loss surgery?

Weight loss surgery is also known as obesity surgery or bariatric surgery. It refers to operations designed to help reduce your weight to improve your health and life expectancy. It should not be thought of as cosmetic surgery as its focus is on improving your health through weight loss, not on achieving a perfect body. The operations work in different ways to reduce your hunger and the amount of food your stomach can hold at any one time.

Why should I consider surgery for weight loss?

Bariatric surgery is proven to be one of the most effective methods to significantly improve weight related health problems through weight loss. Making the decision to have weight loss surgery is a serious step and it is important that you fully understand all that is involved and the challenges ahead.

From your first visit we will help you in making a long-term weight loss plan and continue to support you after your surgery. Please keep in mind there are risks associated with this type of surgery; however you can avoid complications by following certain basic guideline principles. Our guidelines are based on experience, with over 5,000 operations in the UK and up to 200,000 per year in the United States we understand the factors that lead to both success and disappointment. The most successful weight reducers are able to commit to lifelong dietary, exercise and other lifestyle changes. We agree this is not always easy to do but we will help you to recognise and make these changes. Weight loss surgery is a tool to help you lose weight and is not necessarily a solution for everyone.
Why should I have bariatric surgery at St George’s Hospital?

St George’s is a recognised service provider for weight loss and metabolic surgery with one of the longest track records in the UK. You will be seen by a team of specialists whose main aim is to ensure you get the best treatment to lose weight and keep it off safely and effectively. These specialists together are known as the multi-disciplinary team (MDT).

The members of the team at St George’s Hospital include:

- Bariatric surgeons
- Bariatric clinical nurse specialists (CNS)
- Bariatric specialist dietitians
- Clinical psychologists and psychiatrists
- Endocrinologist/metabolic physician
- Bariatric co-ordinator
- Anaesthetists
- Plastic surgeons

What are the results at St George’s Hospital?

At St George’s Hospital we have one of the longest established bariatric surgical units in the United Kingdom. We treat over 400 patients per year and have a particular interest in undertaking complex surgery not performed in other smaller units. Our results compare favourably with national and international centres of excellence.

What to expect – from referral to surgery

You will usually be referred to us by your GP or consultant. We will then arrange for you to have appointments with the surgeon and dietitian and a psychology questionnaire will be sent out to you to fill in.

The purpose of the assessments is to evaluate your medical health, eating behaviours and lifestyle and to discuss your surgical options with you. We will give you information and education about surgery and answer any questions that you have.

After your assessments we discuss your case at our weekly multi-disciplinary team (MDT) meeting. We may decide that you need further input from our anaesthetist, psychologist, specialist nurses or dietitian before progressing to surgery.

If we feel that you are ready for surgery, you will go on the waiting list and your surgery will take place shortly after that.

Two weeks before your surgery you will attend a pre-op assessment clinic to ensure you are medically fit for surgery.

The admissions department will send this appointment to you together with information on a liver shrinkage diet which you need to follow for 10-14 days before your operation. It is very important that you follow this as if your liver is too large, the operation may not be able to take place (see frequently asked questions for more information). If you have any questions about this diet, you can ask at the pre-op clinic or telephone the dietitians. You will also be given written information about your diet after surgery.

You will then be seen by the dietitian, ten to twelve weeks after your surgery. They will review your weight loss progress, tolerance of foods and the nutritional balance of your diet. Vitamin and mineral supplementation will also be discussed and your GP updated by a letter. You will then see the dietitian again nine months later. Though please note you can call for support at any time prior to then and arrange an appointment if necessary.

Six months after your operation, you will have a surgical review with a member of the surgical team. They will check your weight and request a blood sample to ensure there are no nutritional deficiencies. If you are having any problems they may refer you to the nurses or dietitian. Your GP will always be updated of your progress and you will receive a copy of the letter.

If everything is well then you will be seen for a final time by the specialist nurse 18 months after your surgery. The nurse will then discharge you back to the care of your GP for annual review. In some cases we may need to see you for longer or your GP may refer you back to us if required.

Most patients come into hospital on the day of surgery and usually stay for two nights. For those having the gastric band or intragastric balloon it is often an overnight stay only.

Before going home you will be seen by a member of the bariatric team for specific advice if necessary and to answer any questions you may have about your surgery.

Our contact details are clearly marked on the written information we give you. If you require support at home simply call our specialist nurse (CNS) or dietitians at any time during office hours.

After discharge, you can expect a phone call in two to three days from the specialist nurse to check how you are getting on. You will be seen by the specialist nurse in clinic four to six weeks after your surgery, to check your progress and help with any difficulties.

Our contact details are clearly marked on the written information we give you. If you require support at home simply call our specialist nurse (CNS) or dietitians at any time during office hours.

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Appointments

These consultations are held in the outpatient departments of St George’s Hospital, details of which will be provided in your appointment letter or card. It is your responsibility to stay up to date with your clinic appointments with the team at St George’s Hospital. Please contact us if you are not sure when your next appointment is due.

Please arrive on time for your appointment. If you are late for appointments it may not be possible for us to see you on that day. If you cannot attend an appointment for any reason you will need to inform the outpatient department in advance. If you are unable to attend 48 hours notice is required. If on two or more occasions, you do not attend, you may be discharged.

The surgical options

The vast majority of operations are carried out laparoscopically, which is also known as keyhole surgery. This means that you’ll usually have five small incisions (cuts) in the abdomen instead of one large cut, thereby enabling a faster recovery. The types of operations we offer at St George’s include:

- Laparoscopic Adjustable Gastric Banding (LAGB)
- Laparoscopic Roux-en-Y Gastric Bypass (RYGB)
- Laparoscopic Sleeve Gastrectomy (SG)
- Intragastric balloon (IGB)
- Duodenal Switch (DS)

Summary of the bariatric pathway

- Referral received
- Appointments with surgeon and dietitian and psychological screening questionnaire sent via post
- Case discussed with MDT
- Further appointment to see member of the team if required (e.g. psychologist, anaesthetist, nurse)
- If suitable for surgery, placed on waiting list
- Appointment at pre-operative assessment clinic
- Patient to start pre-operative liver shrinkage diet
- Go to hospital on day of surgery
- Operation done then discharge with written dietary information and contact numbers
- Phone call from CNS – two to three days after surgery
- Appointment with CNS – four to six weeks after surgery
- Appointment with dietitian – 10 to 12 weeks after surgery
- Appointment with surgeon – six months after surgery
- Appointment with dietitian – 12 months after surgery
- Appointment with CNS – 18 months after surgery
- Discharged to GP (unless otherwise indicated)
Laparoscopic Adjustable Gastric Banding (LAGB)

The band is attached by some tubing to a port which is placed under the skin of your abdomen. Fluid can be added to the band to increase or decrease the sense of satiety. The stomach and intestines are not cut, stapled or removed when placing the band. Therefore digestion and absorption are not affected. The band is not filled with fluid at the time of surgery. Your first band fill will usually be about four to six weeks after surgery. You may need to have your band tightened several times to provide you with the desired sense of fullness on eating. A member of the team will discuss the optimum amount with you, based on your food intake, eating habits and weight loss.

Should you require any other type of emergency or elective surgery in the future, the gastric band should not cause any problem. However, the surgeon performing the operation must be informed about your gastric banding prior to surgery.

Expected weight loss

You should lose weight steadily over two years following surgery. On average, people lose up to 50 per cent of their excess body weight. Often this doesn’t start to happen until three months after surgery. There is, however, a large variation in results and weight loss is not guaranteed. Adherence to dietary advice and regular exercise is necessary to achieve these results. The dietitians will discuss with you what changes you would need to make to your eating patterns to have the best weight loss results.

Things to consider

- The operation works by limiting the speed of eating and helps to create early fullness providing the right foods are chosen. It is extremely important that you eat healthily.
- It may take several visits to get the band to the right level of restriction for you.
- You can lose on average 50 per cent of your excess weight.
- The surgery does not involve cutting, stapling or removing any part of the stomach and intestines so food is digested and absorbed as normal.
- The surgery can be reversed if necessary (although it is very likely you will regain the weight).
- Weight loss may be slow and there is large variability in weight loss amongst patients.
- Weight loss may not start until many months after surgery when optimum balance through fills is achieved.
- The access port may twist and therefore be inaccessible for band fills—you may require another operation to correct the problem.
- The port or band may leak and deflate, which may require another operation to correct the problem.
- The band may move out of place or you may need to have all the fluid removed from your band for a period of time, or need another operation to remove or replace it.
- The band may erode into the stomach wall and need another operation to remove or replace it.
- The band or port may become infected and need to be removed.
- You may suffer from worsening gastro-oesophageal reflux (heart burn), ulceration, gastritis, bloating, difficulty swallowing and dehydration.
- Nausea and vomiting may occur, particularly in the first few days after surgery—vomiting is also common if you eat too quickly or eat too much or do not chew your food well enough.
- The gastric band is not generally recommended for people who struggle with comfort or binge eating episodes. Continued overeating and vomiting can lead to the complications described above.
Surgical Options

Laparoscopic Roux-en-Y Gastric Bypass

How it works
This operation creates a new small stomach pouch where a new opening is formed by making a Y loop from the intestine. This means food bypasses most of the stomach and about a third of the small intestine. This reduces hunger and creates fullness quickly so the amount you can eat is less. This together with changes to your diet and activity levels results in weight loss. A consequence of the surgery is that fewer vitamins and minerals are absorbed as food passes through the intestine.

To avoid developing a complication following surgery such as nausea and vomiting or a nutrient deficiency it is essential that you follow the dietary advice recommended. You also need to take vitamin and mineral supplements prescribed everyday for life. Regular blood tests are needed to ensure you do not develop any nutritional deficiencies.

Expected weight loss
Most people lose weight quite quickly following this operation. You will generally reach your target weight after 18 months. On average, people lose 65 per cent of their excess body weight.

There is variation in the amount of weight that people lose following surgery. Adherence to dietary advice and regular exercise will result in greater weight loss. The team will discuss the changes you need to make to your eating habits for the best weight loss results.

Things to consider

- The amount of food you can eat is reduced. It is therefore important to eat well for good health.
- You can lose on average 65 per cent of your excess weight.
- It is unusual for a patient not to lose the expected amount of weight.
- The gastric bypass procedure is particularly effective at reducing your medication requirements and improving blood sugar control for patients affected by Type 2 Diabetes.
- Nausea and vomiting may occur, particularly in the first few days after surgery; vomiting is common if you eat too quickly, eat too much or don’t chew properly. You will have better results if you follow dietary guidelines.

You will need to take multivitamin and mineral supplements daily for life to avoid nutritional deficiencies.

- It is important to eat a healthy, balanced and varied diet.
- Some people experience hair thinning; this is temporary and associated with the weight loss in the first few months.
- 30 per cent of patients experience dumping syndrome, a condition which occurs if you eat too much sugar, fat or alcohol, or large amounts of food. It is not considered a health risk, but can be very unpleasant with symptoms including nausea, vomiting, diarrhoea, sweating, faintness, weakness and increased heart rate (dumping syndrome varies from person to person but tends to wear off one year or so after surgery).
Patient Information Bariatric Surgery

How it works

This operation makes the stomach smaller. This is done by removing the majority of the stomach and forming the remainder into a thin narrow tube. It helps achieve weight loss by reducing hunger and creating fullness quickly so the amount of food you can eat is less. This together with changes to your diet and activity levels results in weight loss.

The sleeve gastrectomy is sometimes used as the first part of a two stage operation. This may be because the risks of a long surgical procedure or the technical difficulties are considered too high for some patients. The second stage such as the bypass or duodenal switch is then carried out some months later at a lower body weight. This operation has now also been shown to give good weight loss results in its own right.

Expected weight loss

Much of the weight is lost over the first year after surgery. On average people lose about 50 – 60 per cent of their excess weight.

There is variation in the amount of weight that people lose following surgery. Adherence to dietary advice and regular exercise will result in greater weight loss and better weight maintenance. The team will discuss the changes you need to make to your eating patterns for the best weight loss results.

Things to consider:

- The amount of food you can eat is reduced. It is therefore important to eat well for good health.
- You can lose on average 50 – 60 per cent of your excess weight.
- Your intestines remain intact so food is digested and absorbed as normal, unlike with the gastric bypass. However, you may need to take a vitamin and mineral supplement during the weight loss phase.
- Nausea and vomiting may occur, particularly in the first few days after surgery; vomiting is common if you eat too quickly, eat too much or don’t chew properly. You will have better results if you follow dietary guidelines.
- It is important to eat a healthy balanced and varied diet.
- Some people experience hair thinning, this is temporary and associated with the weight loss in the first few months.
Other procedures offered at St George’s

Intra-gastric Balloon

How it works

Your surgeon may suggest this procedure if they feel you need to lose some weight prior to permanent weight loss surgery to make that surgery safer for you. The gastric balloon restricts the amount that can be eaten. A silicone balloon is inserted endoscopically (through the mouth and down the oesophagus to the stomach).

There is no surgery involved. It is inflated with saline and some blue dye.

The volume of saline inserted varies from 500 to 700mls (about the size of a large orange).

Once inflated, the balloon is too large to pass into the bowel and it will float freely inside the stomach for up to six months only. When it is removed either another balloon is placed or you will go on to surgery such as a sleeve gastrectomy or gastric bypass.

Please note the balloon can cause severe nausea and persistent vomiting for some people. If you experience this, please contact the team.

Expected weight loss

The amount of weight you can lose with the balloon can vary. It depends on your starting weight and how well you stick to the diet and lifestyle advice. Generally between 12 and 25kg (two to four stone) can be lost over the six months.

Please note

The balloon can be used for six months. Longer periods of use are not recommended however there is a safety margin of up to nine months. Over time the acid content of the stomach will weaken the balloon material and cause the balloon to deflate. If this occurs you will see the blue dye after going to the toilet. You will need to contact your consultant as soon as possible. In most cases, after six months the balloon is removed under general anaesthetic and surgery performed.

Is balloon insertion suitable for me?

You may not be suitable for a balloon insertion if you have had any of the following:

- Any inflammatory disease of the upper gastrointestinal tract including inflammation of the oesophagus (food pipe), ulceration of the stomach or duodenum, tumours or other inflammatory conditions.
- Conditions that predispose you to bleeding, such as varices.
- A large hiatus hernia.
- Strictures of the oesophagus or throat.
- Any medical condition which increases the risks of an endoscopic procedure.
- Patients taking aspirin or other non-steroidal anti-inflammatory drugs or those on long term anti-coagulation therapy.

The Duodenal Switch

The Duodenal Switch (DS) is a technically demanding bariatric procedure that often takes longer to perform than other weight loss surgeries. Statistically it is proven as the most effective bariatric option in terms of weight loss, it also performs well improving metabolic health problems such as diabetes, cholesterol or blood pressure. The DS may be chosen as an initial procedure or is done where other options, such as the sleeve gastrectomy or gastric band have failed to achieve weight loss or resolve medical problems. The DS is often performed as a single stage or two stage operation.

Please note: The DS is the most demanding operation from a diet and lifestyle perspective.

How it works

The Duodenal Switch works mainly by mal-absorption of calories. There is also a moderate reduction in the size of the stomach which will reduce how much you can eat at any one time. Depending on the choice of food and texture you should feel full with smaller portion than before the operation. You may also notice a reduction of appetite between meals.

The mal-absorption effect achieves weight loss by re-routing the intestine into two pathways or channels. One channel is known as the alimentary limb and carries only your food to where it meets the other channel (biliopancreatic limb) which carries the digestive juices. Where the two eventually meet and mix is it called the common limb and is where digestion and absorption finally takes place.

By taking separate pathways to the common limb there is less time for food and digestive juices to mix. Because the common limb is quite short your body has less chance to absorb the full energy value of the meal.

With the DS absorption of fat, carbohydrate and protein is impaired. It is thought that only 20% of fats are absorbed, 50% protein and 60% complex carbohydrates. Please note that 100% of sugars and alcohol will still be absorbed.

As you can see, mal-absorption is quite significant; however this poses potential risks for those undergoing the DS. Protein is arguably the most important nutrient in our diets. Protein is vital to our health and its absorption is impaired by the DS. For this reason eating a high protein balanced diet after the DS is critical for long term health.

Other procedures offered at St George’s
Another consequence of the shortened pathway is that some vitamins and minerals are not well absorbed and need to be supplemented to the diet. Supplementation is not optional, it is an absolute necessity and is required for life. If you feel you cannot maintain this obligation, then the DS may not be for you.

### Is the duodenal switch suitable for me?

- The DS is an effective operation for weight loss, however there is an increased risk of complications compared to the other bariatric options. Attending follow up is essential.
- This operation relies on you being able to eat a high protein diet (about 100g per day). You will be given advice on how to do this but if you think you would struggle to achieve this then this is not the right operation for you. For this reason it is not recommended for vegetarians or vegans.
- This operation is not suitable for you if you have had previous surgery involving your colon, if you suffer with severe reflux or if you suffer with an inflammatory condition of the bowel such as IBD or Crohn’s disease.
- Diarrhoea is common after this procedure. This is often foul smelling and associated with gas. You can expect loose bowel motions on a daily basis; the frequency of bowel motion varies between individuals and depends on the quality of your diet.
- This operation reduces the amount of fat your body is able to absorb. It does not limit the amount of sugar or simple carbohydrates your body can absorb so if you have excess calories coming from these foods, your weight loss won’t be as good.
- It is possible to have a ‘normal’ diet following the DS but a high protein intake and compliance with a range of vitamin and mineral supplements on a daily basis is essential to prevent complications. Commonly prescribed supplements include two multivitamin and minerals daily, two calcium with Vitamin D, two iron/folate tablet as well as fat-soluble vitamins A, E and K.
- You would require lifelong annual blood tests to check for vitamin and mineral deficiencies. Without proper follow up tests and lifetime commitment to the supplements DS patients can become ill. Follow-up care is not optional and must continue lifelong.
- The long-term risks of DS include the brittle bone disease known as osteoporosis. This is due to mal-absorption of calcium and vitamin D, which are needed to maintain bone strength. Your follow up may therefore include routine bone scans to check the health of your bones.

### Expected weight loss

Most people can expect to lose about 70 to 80 per cent of their excess body weight.

### Risks of undergoing bariatric surgery

Although surgery is very safe, like any gastrointestinal operation there are some risks which do occur. Although these complications do occur, it should be emphasised that these are rare events but can include:

#### General anaesthesia

People who are obese are at greater risk of surgical anaesthetic complications.

#### Leaks

Leaks from the gastrointestinal tract can occur in two to three per cent of cases where the bowel or stomach are cut or sown. If a complete seal does not form, bowel contents can leak into the abdomen causing a serious infection.

#### Deep vein thrombosis and pulmonary embolism

Any surgical operation which involves a period of immobility can result in the formation of a blood clot in the leg. These clots can break off and travel to the lungs. To help prevent this, you will be put on blood thinning medication (heparin) and given compression stockings while in hospital. You will also be encouraged to get out of bed and walk as soon as possible after surgery.

#### Infection

Following surgery, you will be more susceptible to a number of infections including lung, wound and urinary infections. Overall the incidences of these infections are low and are normally successfully treated with antibiotics.

#### Bleeding

This can occur in 1 per cent of cases and is usually resolved by stopping the blood thinning medication (heparin) which prevents blood clotting and pulmonary embolism. Occasionally surgery and/or endoscopy may be needed to stop the bleeding.

#### Conversion to an open operation

Although over 95 per cent of operations can be performed through keyhole surgery, some operations cannot be successfully completed by a keyhole approach and require a larger cut. The most common reason for this is the presence of bleeding or the presence of dense scar tissue during surgery.

#### Bowel and other injuries

During the insertion of the camera, there is small risk of damaging the bowel or blood vessels. These are usually noticed at the time of operation and dealt with then. In addition, the stomach is close to the spleen and very rarely injuries can occur during surgery. In some cases you may have to have your spleen removed.

Overall when all the risks are added up there is a very small risk of death associated with surgery (less than one in 200). The exact figure varies according to your medical status and the type of operation performed and your particular risk of complications will be discussed with your doctor prior to surgery.
Bariatric surgery is a lifelong commitment and as such there are some complications which can occur both immediately after surgery and many years following surgery. Although these are rare they include:

**Bowel obstruction**
Blockage of the bowel following bariatric surgery may be caused by a number of factors including scar tissue in the abdomen, kinking of the bowel, or the development of an internal hernia. These complications can occur in the immediate period following surgery as well as many years following your operation and may require a further operation to correct it.

**Stomach ulcers and strictures**
These can occur at the junction between the stomach pouch and the intestine in gastric bypass patients. These can usually occur in the first year following surgery and may be treated with medication however in some cases this leads to partial or total blockage of the stomach. Smoking after surgery significantly increases the risk of ulcer formation.

**Gallstones**
Over time you may develop gallstones due to rapid weight loss. It may be necessary to undergo a further operation to remove your gallbladder.

**Incisional hernia**
This refers to a weakness in the abdominal wall following surgery, typically resulting in a bulge over an old wound site. This occurs more frequently with open surgery techniques and is rarer when using laparoscopic ‘keyhole’ techniques. It usually requires an operation to repair the hernia.

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Making the right choice – what is the best operation for me?

There is no straightforward answer to this question. You may have an idea of the procedure you would prefer when you first attend the clinic. This may be based on your own research or from talking to other people who have had surgery.

The assessment process with the surgeons, dietitians and sometimes the psychologist will help to identify the most appropriate procedure considering factors such your age, dietary habits, your previous medical and surgical history and expectations of weight loss.

After the assessments we will provide you with information to help you decide, it will be a joint decision between you, the surgeon and the rest of the team.

We feel that it is important for patients to fully understand the changes that weight loss surgery will bring, together with the commitments and risks. The risks of the surgery have to be balanced against the risks of remaining overweight and long term implications of obesity on your health.

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Other things to consider

**What are my expectations?**

In making the right choice you need to consider why you are having this surgery? What is your main aim?

What do you wish to achieve?

Your reasons may be for health, mobility, and improved self esteem or simply to win the battle with your weight and stop the upward trend. Some people expect to feel happy after weight loss. They wish to avoid the negative thoughts or depression that often leads to unhelpful eating habits or poor food choice.

For some, there is an expectation that the surgery will prevent them from overeating or binge eating. Some expect the surgery to do more than it can and that it will be the key to happiness and satisfaction in life. Unfortunately weight loss does not always improve our patient’s moods. For many this can be quite disappointing. Please be realistic in your expectations from the beginning.

Some hope the surgery will ‘sort out’ their diet. It is true that surgery marks a new beginning; however keep in mind that weight management is a lifelong challenge, there are no easy solutions, and that you must be committed to the process of self monitoring and planning to avoid regaining the weight.

Unfortunately not everyone keeps the weight off after bariatric surgery. Following a healthy eating plan and being as active as possible will help to ensure you sustain good weight loss.

If you have doubts then please discuss your concerns with any of the team. It may be a good idea to write down your concerns and questions before your next appointment.

**What about my health problems?**

Many health problems are directly linked to weight. Diabetes, high blood pressure, cholesterol or sleep apnoea all improve with significant weight loss.

If you carry a number of medical problems the gastric bypass may be your best option. The bypass has a proven reputation for achieving a greater amount of weight loss with rapid improvement in health conditions such as diabetes. So much so, that the bypass is the procedure of choice in almost all cases for those with diabetes.

Other factors may influence the choice of operation. If you have kidney problems, Crohn’s disease or require certain medicines to treat other issues, then a simple restrictive procedure such as the gastric band or sleeve gastrectomy may offer the best risk to benefits balance. The surgeons or endocrine physician will be able to advise you on this.

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Longer term complications
How will my eating patterns affect my weight loss and health after surgery?

All operations require diet and lifestyle changes. There are characteristics of each operation which suit different dietary profiles and the team will work with you to decide on the best procedure. The following is a brief summary of a few common dietary profiles. See if you can identify any of your own habits:

**I cannot resist sweets, chocolates, biscuits or cakes.** Surgery cannot stop you eating these foods. It is important to eat a healthy balanced diet and significantly reduce the consumption of these foods for the best chance of good results. If you still rely on foods such as these, with little nutritional value, you are likely to feel tired and unwell. With the gastric bypass an unpleasant side effect known as dumping syndrome can occur after eating sugary or high fat foods on an empty stomach. This side effect can be helpful to reduce the quantity of these foods or avoid them altogether, however four out of ten will not experience this effect.

**I eat lots of fatty, fried foods and/ or I drink alcohol regularly.** These foods are high in calories and are quite well tolerated after surgery. Obviously they will impair weight loss if eaten too often. You will find little to no restriction to alcohol. High fat foods are lubricated and will slide down comfortably. High fat foods are often less well tolerated after the bypass, however they are easily managed following a gastric band or sleeve gastrectomy and will influence your weight loss results.

**I eat irregularly and can go long periods between meals.** A key factor for successful weight management is keeping a regular meal pattern to regulate metabolism and avoid building up a strong appetite. Research shows that missing meals slows the metabolism. It is well known that people lose more weight when following a regular meal pattern.

**If you allow yourself to become too hungry you may be more likely to eat too quickly, or not chew well enough causing pain and vomiting.**

**I follow a special diet.** If you are vegetarian, vegan, intolerant to various foods or are simply a fussy eater you should carefully consider the overall variety and balance of your diet. Those on restrictive diets such as the above have a greater risk of nutrient deficiencies after weight loss surgery. Protein becomes one of the most important food groups and should come from a variety of sources. Vitamin and mineral supplements are important for everyone undergoing weight loss surgery and possibly even more so if you are on a special diet.

**I don’t have any back teeth.** After weight loss surgery, it is important that you chew your food well. Failure to do so can cause considerable discomfort or pain. It may be a good idea to see your dentist prior to getting a date for surgery. For some people soft food may result in a poor weight loss outcome.

**I am a comfort or binge eater.** Surgery does little to address the factors in your life that lead to binge or emotional eating. Regular episodes of emotional eating may limit your weight loss or lead to other unhelpful or even dangerous ways of coping with pressure after surgery. While binge eating will not necessarily prevent you from having weight loss surgery, we do need to assess whether you need additional help beforehand. We can help you access this support. As part of your preparation for surgery it is important to find alternative ways of coping. We may refer you for counselling or work with you from the beginning to set goals to help you make changes for a successful outcome.

**Pregnancy**

It is recommended to wait twelve months before trying for a baby. Weight loss surgery increases the chances of nutritional deficiencies and it is important that key nutrients are available from conception and throughout pregnancy. During the rapid weight loss phase it is difficult for your body to get the essential nutrients it needs for your baby to be healthy. Keep in mind that considerable weight loss can improve fertility. The gastric bypass can also reduce the effectiveness of the oral contraceptive pill. As a result there is a greater chance you may fall pregnant, take precautions, even if you have been told you cannot have children. If you do fall pregnant, please inform your GP and let us know so we can monitor you more closely.

**Smoking**

Smokers carry a far greater risk of complications such as leaks, strictures, perforations or stomach ulcers after this type of surgery. We insist that you quit before the surgery as the effects of smoking are far more detrimental to your health than being overweight. You should see your GP for help quitting, there are now effective treatments available to assist you with this aim. This is a good time to consider everything as a new beginning to change your diet and lifestyle habits.

**Alcohol**

Alcohol can be enjoyed in moderation after weight loss surgery; though do keep in mind there is little restriction to fluids after any of the weight loss surgeries. Alcohol is high in calories and may reduce the amount of weight loss you achieve. Many find it possible to drink considerable quantities of alcohol after surgery, albeit at a slower rate. Studies show the risk of developing alcohol dependency after weight loss surgery is quite common. For some, alcohol can replace the use of food in difficult emotional circumstances. Those with a past history of alcohol excess are at the greatest risk of relapse.
**Frequently asked questions**

**I’m worried about the dangers of having surgery**
It is common to feel anxious about the complications of major surgery. Your surgeon can discuss with you your individual level of risk for weight loss surgery. The risks of remaining obese are generally higher than those associated with surgery.

**Is the procedure reversible?**
We do not consider any of the procedures reversible. Reversal of the procedures also carries more risk than the initial procedure. Although reversal can be technically possible it is only considered if there is clear medical reason to do so.

**How much weight will I lose? Will the weight loss be quick?**
The amount of weight you lose and how long it takes depends on which surgery you have and how well you follow a healthy balanced diet. Patients having the gastric band usually lose weight more slowly than with the gastric bypass or sleeve gastrectomy.

Your weight loss will depend on how much excess weight you carry. The bariatric team will calculate an ideal weight for your height; this is based on a BMI of 25kg/m². Anything over the ideal body weight is considered excess weight. In reality, most patients lose between 40 to 70 per cent of the excess weight. Some lose far less or more than this.

Often the weight loss in the first three to six months is the most rapid. After that it slows down though often continues for up to eighteen months. In the long term the total weight loss can be comparable between each procedure, that all depends on how well you work with the surgery.

Do I need to follow a special diet before surgery?
Everyone needs to follow a liver shrinkage diet for two weeks before surgery, unless you are having a gastric balloon. The diet is low in fat, carbohydrate and sugars. The aim of the diet is to shrinks the liver so that the surgeons have good access to the stomach that lies underneath. This diet reduces stores of fat, glycogen (a type of sugar) and water in your liver making it more flexible so the surgery is easier and safer to perform. It is very important to follow this diet; if your liver is not sufficiently reduced, surgery may not be possible.

Do I need to follow a special diet after surgery?
There is a special diet to follow after surgery; this helps your stomach to heal. You will progress from fluids to solid foods over six weeks. In the long term you should aim for balanced healthy eating. Within reason there is nothing you cannot eat after weight loss surgery. Success is a matter of food choice, quantity and frequency of eating. Keep in mind the surgery alone will not change your eating habits. It will restrict how much you can eat but does little to influence your choice of foods.

**How do I get my protein in when I can only eat such little amounts?**
Protein is important for wound healing and to preserve your muscle tissue during the weight loss phase. Protein also keeps you fuller for longer and may help fight off cravings. All your meals should include protein. Your dietitian will help you achieve this.

**Will I feel hungry after weight loss surgery?**
Weight loss surgery is very effective in reducing the perception of hunger, so much so that it may be tempting to miss meals altogether. Unfortunately this can stall your weight loss by slowing your metabolism. You may also deplete your body stores of vitamins, minerals, protein and energy. This may leave you vulnerable to illness or infection, or make you feel unwell. It is important to establish a good daily routine of three meals even if you are not hungry.

You may still experience ‘head hunger’ or emotional hunger, for example in response to stress, upset or boredom. Weight loss surgery does little to address ‘head hunger’. If you think your weight is as a result of this type of hunger then you should give careful consideration to this beforehand. You may benefit from further support or counselling to manage this which we can discuss with you.

**Will I have to take vitamins and minerals?**
Yes, but the amount and type you need depends on which operation you have had. With the gastric bypass vitamins and minerals particularly iron and calcium are not well absorbed. For this reason you will need to take supplements each day for life. Following a sleeve gastrectomy and a gastric band we recommend you take a complete multi-vitamin and mineral daily for the first year. Nutritional supplements do not replace the need for a nutritionally balanced diet. They do not contain protein or energy for good health. We cannot live on supplements alone; they simply help prevent deficiency and top up anything you may be lacking as a result of your small dietary intake.

**What are the nutritional risks of weight loss surgery?**
The surgery can make it challenging to meet your nutrient requirements with food. That is why it is necessary to take supplements. There is an increased risk of anaemia (iron deficiency) or osteoporosis (thin bones) especially after the gastric bypass. Nutritional risk increases if your dietary pattern and food choices are not ideal. The dietitian will help to identify any potential risks and if needed advise you on your diet before surgery.

**Are there any side effects?**
Side effects of weight loss surgery vary widely but are usually minimal if following the dietary guidelines. Some people report diarrhoea, constipation, excessive gas, and vomiting. Vomiting is usually due to eating too much, too fast or not chewing the food well enough. Bloating and gas is often the result of your digestive system adapting to a new diet and less food overall.

**Dumping syndrome**
Dumping syndrome can occur following a gastric bypass if too much fat, sugar or alcohol is ‘dumped’ into the intestine at any one time. This can be associated with nausea, vomiting, diarrhoea, sweating, feeling faint and weak and an increased heart rate. You can avoid this by being careful of what and how you eat. Six out of ten people will suffer with dumping syndrome and four out of ten may not feel any of the symptoms despite eating high fat or sugar containing foods. Dumping syndrome usually wears off for most people about a year after surgery.

**Will I lose my hair?**
Hair loss after bariatric surgery is unfortunately common. The hair shaft is undamaged and it grows back normally after nine months or so. There are a number of reasons why you may lose hair but it is generally the result of rapid weight loss or low nutritional status. Hair loss peaks around three to five months after surgery. A good protein intake will help preserve your hair and it will all normalise in time.
Do some people regain weight after surgery?
As many as five in ten may regain some weight or fail to lose as much as expected. This is almost always due to the diet rather than failure of the surgery. Success takes commitment to making and sustaining diet and lifestyle changes from the beginning.

Will I have excess skin after I lose weight?
After weight loss surgery most are left with some excess skin. This varies from person to person and problem areas are the tummy, arms and thighs. How much depends on your age, gender, activity level and how overweight you were to begin with. Please note surgery to remove this excess skin is not included in your bariatric package of care. This surgery is known as ‘body contouring’.

What is the process for removing excess skin?
Funding to remove this excess skin will have to be applied for through your local Clinical Commissioning Group (formerly known as Primary Care Trust). Currently to qualify for funding you will need to meet the following criteria:

- Aged 18 or over.
- Be at least 18 months after your surgery.
- Show significant weight loss after surgery with at least 50 per cent loss of your excess weight, which you have maintained for at least six months.
- Have a BMI of less than 28kg/m2.
- Have severe functional problems, for example difficulties with daily living such as movement/walking or problems with skin infections which have not responded to appropriate medical therapy for six months.
- Have no history of keloids or hypertrophic scars.
- Be willing to visit St George’s Hospital either daily or weekly during the six weeks before any surgery.

If you meet these criteria and are likely to be funded, your GP should then refer you to the plastics team at St George’s Hospital. This team will assess you and write back to your GP with details of what they recommend. It is then that your GP can make the application for funding.

Once your funding has been approved, your GP will need to inform the plastics team, who will then see you again to talk to you about the surgery.

Your GP will be given details about this process at the point at which we discharge you.

Should I exercise after weight loss surgery?
Regular exercise is extremely important for maintaining your weight loss. You should wait at least six weeks after your surgery before engaging in vigorous activity. When you lose weight you will also lose some muscle. Obviously you don’t want to lose too much. Regular exercise helps preserve muscle and will help with the excess skin.

Can I drive after weight loss surgery?
You should not drive for ten days after surgery. The DVLA have clear instructions on this. You will not be covered by insurance until ten days have passed.

What if I am unable to attend regular appointments?
It is important that you attend all appointments allocated in your after care package at St George’s Hospital. The purpose of the appointments is to help identify problems before they emerge to ensure you recover well, eat well and adapt your lifestyle for good weight loss. If you have difficulties it is best to address things early on. If you travel a long distance to the hospital we can arrange your appointments on the same day. Please contact the team to arrange this if you wish.

Further Support

Hospital patient support group
We run voluntary monthly meetings for patients in the bariatric service. They run on the last Tuesday of each month from 17.30–19.30hrs in the Thomas Addison Unit, Lanesborough Wing, St George’s Hospital.

It is a good chance to meet other patients who have had surgery or who are waiting for surgery. You are welcome to attend any or all of these sessions. Feel free to bring along a family member or friend. Sessions often have themes which may include guest speakers. Many patients tell us that they find this group really useful and the environment is very welcoming so if you think it would be helpful for you, then please attend.

Our contact details
Bariatric coordinator: 020 8725 5579
Dietitians: 020 8725 1022
Nurses: 020 8725 4238

Further reading

Useful resources
BOSPA
www.bospa.org

WLSINFO
www.wlsinfo.org.uk

Information on healthy eating and weight loss can be found at:

NHS
www.nhs.uk/livewell/healthy-eating

British Heart Foundation
www.bhf.org.uk

Information on diet and activity for all ages and abilities can be found at:

NHS
www.nhs.uk/change4life

Further Support