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Document Title:

Laparoscopic Gastric Bypass

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What is a gastric bypass?

A gastric bypass (also called Roux-en-Y) involves stapling your stomach to create a smaller stomach 'pouch' and then bypassing the rest of your stomach and part of your bowel (see figure 1). It works by making you feel full sooner so that you eat less, and by preventing some of the calories and nutrients in your food from being absorbed.

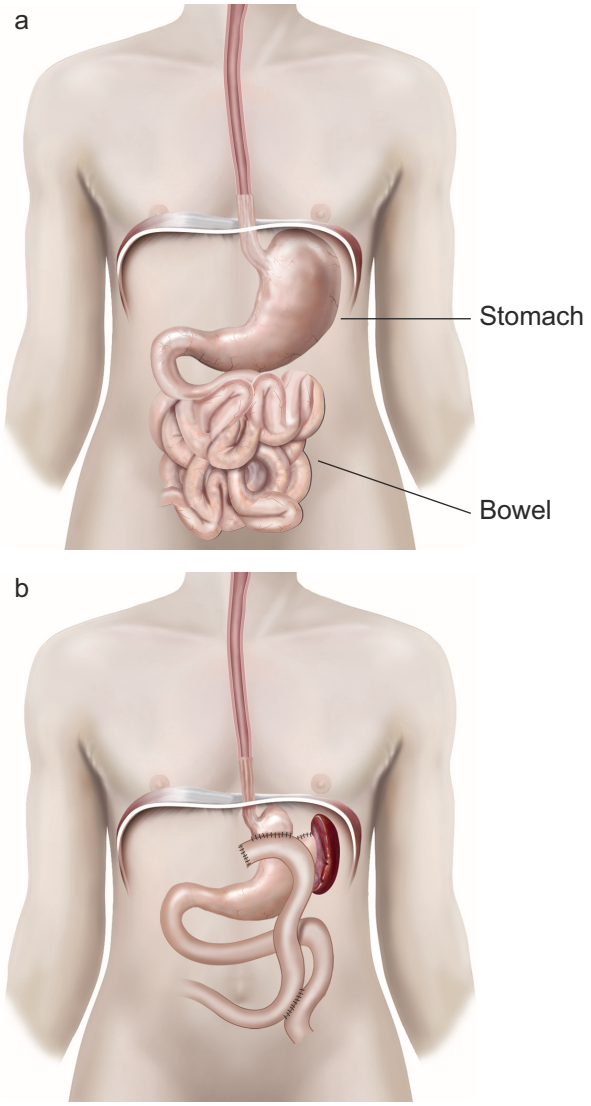

Figure 1

a Before a gastric bypass

b After a gastric bypass

Your surgeon will assess you and tell you if a gastric bypass is suitable for you. However, it is your decision to go ahead with the operation or not.

This document will give you information about the benefits and risks to help you to make an informed decision. If you have any questions that this document does not answer, ask your surgeon or the healthcare team.

Is a gastric bypass suitable for me?

Your BMI (body mass index) is a measurement used to find out if your weight is within a healthy range for your height.

A BMI score of over 30 means that you are obese. This puts your health at risk and you will benefit from a programme of healthy eating and exercise aimed at long-term weight loss.

If your BMI score is over 40 (morbid obesity), surgery may help you to achieve long-term weight loss. Surgery may also help if you have a BMI over 35 (severe obesity) and have other medical problems such as Type-2 diabetes, high blood pressure, sleep apnoea (your breathing stops for 10 seconds or longer during sleep), breathing problems or heart disease.

Your surgeon will confirm your BMI score and carry out a detailed assessment before deciding if surgery is suitable for you. This may include asking you questions about your medical history.

Your surgeon will discuss with you the changes you need to make to your lifestyle to achieve long-term weight loss. They will need to be satisfied that you are motivated to make the changes, including keeping to a new eating plan and exercising regularly.

What are the benefits of surgery?

You should be able to achieve long-term weight loss but this depends on your ability to keep to your new lifestyle.

Long-term weight loss should improve most obesity-related health problems you may have.

Are there any alternatives to a gastric bypass?

The simple approach to losing weight involves eating less, improving your diet and doing more exercise. Sometimes medication given by your GP can help.

There are other surgical options to a gastric bypass.

- Gastric banding – Inserting an adjustable silicone band around the upper part of your stomach.
- Shortening your digestive tract – Cutting away some of your bowel to limit how many calories and nutrients your body can absorb.
- Sleeve gastrectomy – Reducing the size of your stomach to a short tube shape.

Gastric banding has fewer complications and there is a lower risk of developing serious complications. Recovery is usually faster, as the operation does not involve cutting your stomach or other parts of your digestive system but weight loss is slower. Gastric banding is less effective for people who eat high-calorie dense food (such as mashed potato, sweets and chocolate) and drink too many liquid calories (found in sugar-rich fruit juice, soft drinks, milkshakes and alcohol).
It may be possible to have a gastric balloon, where an inflatable silicone balloon is inserted in your stomach to make you feel full sooner so that you eat less. A gastric balloon has fewer complications as the procedure does not involve any surgery but a gastric balloon can stay in place for only up to 9 months. Although you should achieve some initial weight loss, the weight loss is not as much and is slower compared to the surgical options.

What will happen if I decide not to have the operation?

The healthcare team will continue to support your efforts to eat less, improve your diet and do more exercise. Your surgeon may recommend that you go to your GP.
If your efforts are not successful, you will continue to be at a higher risk of developing serious medical problems.

What does the operation involve?

The healthcare team will carry out a number of checks to make sure you have the operation you came in for. You can help by confirming to your surgeon and the healthcare team your name and the operation you are having.
The operation is performed under a general anaesthetic and usually takes two to four hours. You may also have injections of local anaesthetic to help with the pain after the operation. You may be given antibiotics during the operation to reduce the risk of infection.
Your surgeon will use laparoscopic (keyhole) surgery as this is associated with less pain, less scarring and a faster return to normal activities.
Your surgeon will make a small cut on your abdomen so they can insert an instrument in your abdominal cavity to inflate it with gas (carbon dioxide). They will make several small cuts on your abdomen so they can insert tubes (ports) into your abdomen. Your surgeon will insert surgical instruments through the ports along with a telescope so they can see inside your abdomen and perform the operation (see figure 2).

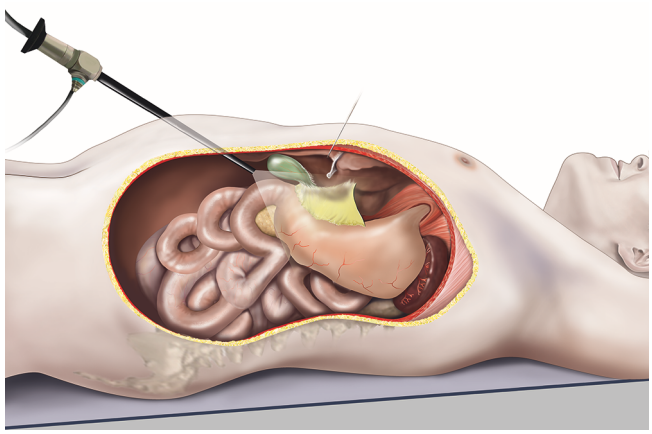

Figure 2
Laparoscopic surgery

Your surgeon will create a tunnel behind your stomach, just below the join with your oesophagus (gullet). They will pass a stapling device through the tunnel and then staple your stomach to create a smaller stomach pouch.
Your surgeon will use another stapling device to divide your small bowel about 120 centimetres below your stomach. They will bring up the lower end (enteric limb) and attach it using staples or stitches to your new stomach pouch. The contents of your new stomach pouch will now bypass the rest of your stomach and the first part of your small bowel.
Your surgeon will bring the end of the first part of your small bowel (bilio-pancreatic limb) and attach it using staples or stitches to the enteric limb about 120 centimetres down from your new stomach pouch.
For about 1 in 100 people it will not be possible to complete the operation using keyhole surgery. The operation may be changed (converted) to open surgery, which involves a larger cut on your upper abdomen.
Your surgeon will remove the instruments and close the cuts.

What should I do about my medication?

Let your doctor know about all the medication you take and follow their advice. This includes all blood-thinning medication as well as herbal and complementary remedies, dietary supplements, and medication you can buy over the counter.
For a few weeks you may need to take liquid forms of your medication or crush your tablets. Follow your surgeon's advice about how to take your medication.

What can I do to help make the operation a success?

If you smoke, stopping smoking several weeks or more before the operation may reduce your risk of developing complications and will improve your long-term health.
Your surgeon will usually give you a specific low-calorie diet to follow for several weeks before the operation, to reduce the fat content of your liver. Your liver should get smaller, making it safer for your surgeon to perform the operation. After the operation your surgeon will give you a strict eating plan. It is essential that you follow this plan to achieve long-term weight loss.
Exercise should help to prepare you for the operation and help you to recover. Before you start exercising, ask the healthcare team or your GP for advice. Keeping to an exercise programme is essential to help you to achieve long-term weight loss. Follow your surgeon's advice.
You can reduce your risk of infection in a surgical wound.

- In the week before the operation, do not shave or wax the area where a cut is likely to be made.
- Try to have a bath or shower either the day before or on the day of the operation.
- Keep warm around the time of the operation. Let the healthcare team know if you feel cold.

What complications can happen?

The healthcare team will try to make the operation as safe as possible but complications can happen. Some of these can be serious. Using keyhole surgery means it is more difficult for your surgeon to notice some complications that may happen during the operation. When you are recovering, you need to be aware of the symptoms that may show that you have a serious complication.
You should ask your doctor if there is anything you do not understand.

Any numbers which relate to risk are from studies of people who have had this operation. Your doctor may be able to tell you if the risk of a complication is higher or lower for you.

1 Complications of anaesthesia

Your anaesthetist will be able to discuss with you the possible complications of having an anaesthetic.

2 General complications of any operation

- Pain. The healthcare team will give you medication to control the pain and it is important that you take it as you are told so you can move about and cough freely. After keyhole surgery, it is common to have some pain in your shoulders because a small amount of carbon dioxide gas may be left under your diaphragm. Your body will usually absorb the gas naturally over the next 24 hours, which will ease the symptoms.
- Bleeding during or after the operation. You may need a blood transfusion or another operation.
- Infection of the surgical site (wound). It is usually safe to shower after two days but you should check with the healthcare team. Let the healthcare team know if you get a high temperature, notice pus in your wound, or if your wound becomes red, sore or painful. An infection usually settles with antibiotics but you may need another operation.
- Unsightly scarring of your skin.
- Developing a hernia in the scar, if you have open surgery, caused by the deep muscle layers failing to heal. This appears as a bulge or rupture called an incisional hernia. If this causes problems, you may need another operation.
- Blood clot in your leg (deep-vein thrombosis – DVT). This can cause pain, swelling or redness in your leg, or the veins near the surface of your leg to appear larger than normal. The healthcare team will assess your risk. They will encourage you to get out of bed soon after the operation and may give you injections, medication, or special stockings to wear. Let the healthcare team know straightaway if you think you might have a DVT.

• Blood clot in your lung (pulmonary embolus), if a blood clot moves through your bloodstream to your lungs. Let the healthcare team know straightaway if you become short of breath, feel pain in your chest or upper back, or if you cough up blood. If you are at home, call an ambulance or go immediately to your nearest Emergency department.

3 Specific complications of this operation

a Keyhole surgery complications

• Developing a hernia near one of the cuts used to insert the ports (risk: 1 in 100). Your surgeon will try to reduce this risk by using small ports (less than a centimetre in diameter) where possible or, if they need to use larger ports, using deeper stitching to close the cuts.
• Damage to structures such as your bowel, bladder or blood vessels when inserting instruments into your abdomen (risk: less than 3 in 1,000). The risk is higher if you have had previous surgery to your abdomen. If an injury does happen, you may need open surgery. About 1 in 3 of these injuries is not obvious until after the operation.
• Surgical emphysema (crackling sensation in your skin caused by trapped carbon dioxide gas), which settles quickly and is not serious.

b Gastric bypass complications

• Pouch stenosis, where the join between the new stomach pouch and small bowel tightens (risk: 1 in 50). This can cause reflux, vomiting, blockage and difficulty swallowing. You may need a procedure to stretch the join.
• Staple-line bleeding (risk: 1 in 50). Heavy bleeding can cause vomiting, black stools and can cause you to collapse. Sometimes the bleeding can stop but you will need a procedure to check the joins. You may need a blood transfusion or another operation.
• Anastomotic leak (risk: 1 in 50). This is a serious complication that may happen if any of the joins (anastomoses) fails to heal, leaving a hole. This often involves a long time without food by mouth. You may need another operation.
• Developing a hernia inside your abdomen caused by part of your bowel becoming trapped or twisted (risk: 1 in 100). This can lead to bowel obstruction and you may need another operation.
• Death sometimes happens with a gastric bypass (risk: 1 in 100). The risk is less the fitter you are.

Long-term problems

• Change in bowel habit or diarrhoea (risk: 1 in 3). More fat will reach your large bowel, causing more frequent, loose stools and wind. You may need to get up at night to empty your bowels (risk: 1 in 20). Your doctor may give you some medication.
• Nutritional deficiencies. Most of the nutrients from your food are absorbed in your small bowel. You will need to have regular blood tests to check your vitamin and mineral levels. The healthcare team will usually recommend that you regularly take multivitamin supplements for the rest of your life. You may need certain supplements by injection.
• Anastomotic ulcer. The acid in the gastric pouch can sometimes cause an ulcer to form at the join between the gastric pouch and small bowel. You may need treatment with medication that lowers the acid content in your stomach.
• Developing gallstones. A gastric bypass can increase the risk of stones forming in bile stored in your gallbladder. If you get severe symptoms, you may need another operation to remove your gallbladder.

How soon will I recover?

• In hospital

After the operation you will be transferred to the recovery area and then to the ward. If you have other medical problems, you will usually be transferred to the intensive care unit or high dependency unit for up to 24 hours and then to the ward.
You may have a barium x-ray to check for any leaks. You may need anti-sickness medication. It is important to follow the eating and drinking instructions that your surgeon gives you. This will help to give the new pouch time to settle. You will start with a liquid-only diet. You need to remember to protect the pouch by not drinking too much and taking only small sips at a time.
You should be able to go home the next day. However, your doctor may recommend that you stay a little longer.
You need to be aware of the following symptoms as they may show that you have a serious complication.
• Pain that gets worse over time or is severe when you move, breathe or cough.
• A high temperature or fever.
• Dizziness, feeling faint or shortness of breath.

- Feeling sick or not having any appetite (and this gets worse after the first one to two days).
- Not opening your bowels and not passing wind.
- Swelling of your abdomen.
- Difficulty passing urine.

If you do not continue to improve over the first few days, or if you have any of these symptoms, let the healthcare team know straightaway. If you are at home, contact your surgeon or GP. In an emergency, call an ambulance or go immediately to your nearest Emergency department.

• Returning to normal activities

To reduce the risk of a blood clot, make sure you follow carefully the instructions of the healthcare team if you have been given medication or need to wear special stockings.

You will be able to take only liquids for a few weeks, progressing to soft food and then, after 4 to 6 weeks, to solid food. Follow the advice of your surgeon or dietician.

You should be able to return to work after two to four weeks, depending on how much surgery you need and your type of work.

Your doctor may tell you not to do any manual work for a while. Do not lift anything heavy for a few weeks.

Regular exercise should help you to return to normal activities as soon as possible. You should be able to start exercising again after a week. Before you start exercising, ask the healthcare team or your GP for advice.

Do not drive until you are confident about controlling your vehicle and always check your insurance policy and with your doctor.

• The future

For a year, aim to lose your excess weight at a weekly rate of around 0.5kg to 1kg (about 1lb to 2lbs).

Sometimes people who have a gastric bypass do not lose as much weight as they want to (risk: 1 in 10). This is usually caused by eating between meals, eating high-calorie dense food and drinking too many liquid calories.

You will need to come into clinic regularly for blood tests to check your vitamin and mineral levels, and to check for other long-term problems. It is important to continue to follow the course of supplements given to you by your doctor. If you feel tired, look pale and have difficulty concentrating, contact your doctor for a check-up.

For women, it may be best to wait a year before trying to become pregnant. Although pregnancy is safer if you are not morbidly obese, you may be at a higher risk of developing complications related to the operation.

The success of the operation depends on your ability to keep to your new lifestyle. On average, people who have a gastric bypass lose over half their excess body weight (the difference between their weight before the operation and their healthy weight).

Summary

If you are severely or morbidly obese, you have a higher risk of developing serious medical problems. If a simple approach involving eating less, improving your diet and doing more exercise does not work, a gastric bypass may help you to achieve long-term weight loss. Success depends on your ability to keep to your new eating plan and exercising regularly. Surgery is usually safe and effective but complications can happen. You need to know about them to help you to make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Keep this information leaflet. Use it to help you if you need to talk to the healthcare team.

Acknowledgements

Author: Mr Ian Beckingham DM FRCS
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