UG28 Surgery for a Large Hiatus Hernia

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If you would like this information in different languages or formats (e.g. audio, Braille or large print), please ask a member of the healthcare team.

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What is a hiatus hernia?

Your oesophagus (gullet) passes from your chest into your abdominal cavity through a small gap (hiatus) in your diaphragm. Your diaphragm is a strong, dome-shaped muscle that you use to breathe. Normally the hiatus is the right size to allow the oesophagus to pass into the abdomen while keeping your stomach in your abdominal cavity. If the gap is too big, the top of your stomach, and in severe cases the whole of your stomach and other organs, can pass through the gap into your chest.

Your surgeon has suggested a hiatus hernia operation. 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.

You have a large hiatus hernia. This is where at least one third of your stomach is in your chest. Sometimes other organs also pass into the chest.

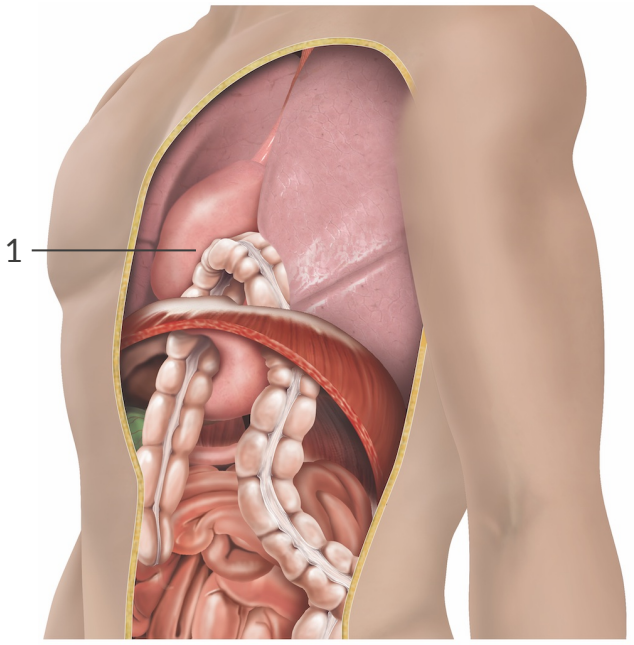
If you have any questions that this document does not answer, it is important that you ask your surgeon or the healthcare team. Once all your questions have been answered and you feel ready to go ahead with the procedure, you will be asked to sign the informed consent form. This is the final step in the decision-making process. However, you can still change your mind at any point.

How does a hiatus hernia happen?

A hiatus hernia can happen if your diaphragm becomes weak or stretched, allowing the gap to get bigger. It is more common in older people or if you are overweight.

- Large hiatus hernias can cause the following symptoms:
- Shortness of breath
- Chest pain after eating
- Anaemia (low iron levels)
- Difficulty swallowing
- Vomiting
- Weight loss.

You may also have acid reflux symptoms. This operation does not aim to correct acid reflux but it may help reduce the symptoms.



A hiatus hernia

1. Part of the stomach and intestine has moved up through the gap in the chest

What are the benefits of surgery?

Surgery should completely resolve or significantly relieve some or all of your symptoms. If acid reflux is a symptom your surgeon may be able to perform an additional procedure at the same time to improve this.

Are there any alternatives to surgery?

Large hiatus hernia will not get better without surgery. There are measures that you can take to limit the symptoms. These include eating smaller meals more often and, if your hiatus hernia is causing acid reflux, taking regular anti-acid medication. Medication that lowers the acid content in the stomach can control symptoms of acid reflux and heal the inflammation in the oesophagus for most people.

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

Surgery is not usually essential and you can continue on medication to control your symptoms.

If you have been previously admitted to hospital as an emergency with your stomach 'twisted' as a

result of your hiatus hernia then you will need to discuss the risk of that happening again. It can be serious and in some cases it is life-threatening.

You can take medication to control other less serious symptoms.

It is important to follow the eating and drinking instructions that your doctor gives you and try to maintain a healthy weight. You should eat smaller meals more often. Try to eat at regular times and not in the 2 hours before you go to sleep. Sleeping with the head of your bed raised can help reduce acid reflux and vomiting.

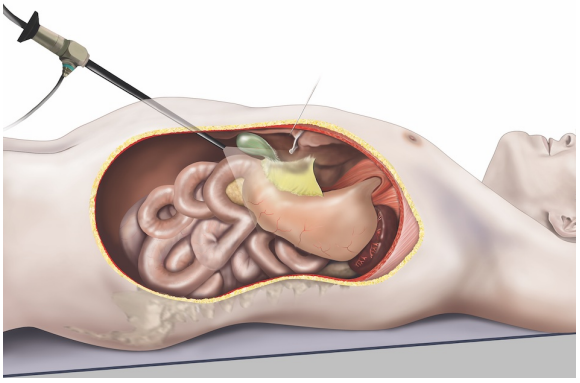
The hernia may get larger with time. A larger hernia can be dangerous because your stomach can get trapped and have its blood supply cut off (strangulation) (risk: 2 in 100 over 1 year). This needs an urgent life-saving operation and is associated with a higher risk of developing serious complications and death.

What does the operation involve?

The healthcare team will carry out a number of checks including for any allergies and 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 2 to 3 hours. You may also have injections of local anaesthetic to help with the discomfort after the operation. You may be given antibiotics during the operation to reduce the risk of infection.

During surgery your liver will be held out of the way to give your surgeon a clear view of the hiatus hernia and hole in your diaphragm. Tissues around the hernia will be freed up and the lining of the hernia (called the sac) will be removed from the inside of your chest. Your surgeon will return your oesophagus, stomach and other affected organs to their normal place.They will stitch your diaphragm to reduce the size of the hiatus so it is big enough to only allow your oesophagus to pass through.



Laparoscopic surgery

In some cases, especially with very large hernias, your surgeon may need to perform a special procedure called a gastroplasty to lengthen the oesophagus.

The healthcare team will repair your diaphragm to reduce the size of the hiatus so it is big enough to only allow your oesophagus to pass through. Sometimes a mesh will be used to strengthen your diaphragm. In some cases a surgical drain is left in your abdomen for a day or two before removal.

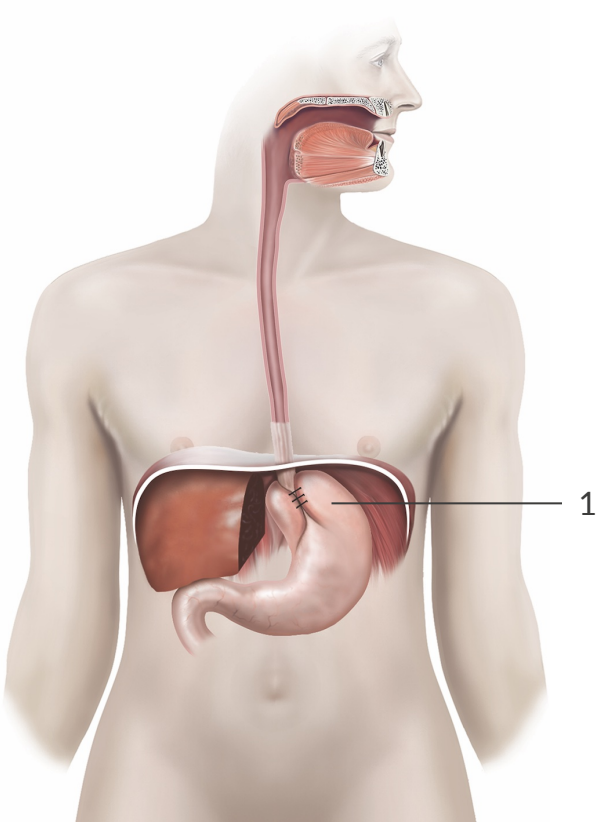
Your surgeon will usually wrap and stitch the top part of your stomach around your lower oesophagus. This strengthens the repair and, if acid reflux is a problem, it may reduce the symptoms.

In some cases a tube is placed in the stomach that comes out of your abdominal wall to help secure a repair. This is called a gastrostomy and it can be removed a few weeks after surgery.

Laparoscopic (keyhole) surgery

Your surgeon may use keyhole surgery as this is associated with less pain and less scarring and means you can return to normal activities faster.

Your surgeon will make a cut in your upper 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.



The stomach is wrapped and stitched around the oesophagus

1. The wrap

Your surgeon will insert surgical instruments through the ports along with a telescope so they can see inside your abdomen and perform the operation.

For some people it will not be possible to complete the operation using keyhole surgery. The risk increases the larger the hernia you have. The operation will be changed (converted) to open surgery.

Your surgeon will remove the instruments and close the cuts.

Open surgery

The operation is the same but it is performed through a larger cut on your upper abdomen. Sometimes your surgeon may recommend that the operation is performed through a cut on your chest.

Your surgeon may decide that keyhole surgery is not appropriate for you and recommend open surgery. They will discuss the reasons with you.

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.

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

If you smoke, stopping smoking now may reduce your risk of developing complications and will improve your long-term health.

Try to maintain a healthy weight. You have a higher risk of developing complications if you are overweight.

Regular exercise should help to prepare you for the operation, help you to recover and improve your long-term health. Before you start exercising, ask the healthcare team or your GP for 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.
- If you are diabetic, keep your blood sugar levels under control around the time of your procedure.

If you have not had the coronavirus (Covid-19) vaccine, you may be at an increased risk of serious illness related to Covid-19 while you recover. Speak to your doctor or healthcare team if you would like to have the vaccine.

What complications can happen?

The healthcare team will try to reduce the risk of complications.

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. Some risks are higher if you are older, obese, you are a smoker or have other health problems. These health problems include diabetes, heart disease or lung disease.

Some complications can be serious and can even cause death. Using keyhole surgery means it may be 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.

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

General complications of any operation

- 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 2 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 special dressings and your wound may take some time to heal. In some cases another operation might be needed. Do not take antibiotics unless you are told you need them.
- Developing a hernia in the scar, 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.
- Allergic reaction to the equipment, materials or medication. The healthcare team is trained to detect and treat any reactions that might happen. Let your doctor know if you have any allergies or if you have reacted to any medication or tests in the past.
- 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 straight away 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 straight away 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.
- Chest infection (risk: 2 in 100). Deep breathing and physiotherapy will help to prevent a chest infection. If you have the operation within 6 weeks of catching Covid-19, your risk of a chest infection is increased (see the 'Covid-19' section for more information).
- Irregular heartbeat (arrythmia) (risk: 5 in 100). This usually settles with medication.
- Heart attack (where part of the heart muscle dies) (risk: 1 in 100). A heart attack can sometimes cause death.
- Death (risk: less than 2 in 100).

Specific complications of this operation

Keyhole surgery complications

- Surgical emphysema (crackling sensation in your skin caused by trapped carbon dioxide gas), which settles quickly and is not serious.
- Damage to structures such as your bowel, liver 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.
- 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.
- Gas embolism. This is when gas (carbon dioxide) gets into the bloodstream and blocks a blood vessel. This is very rare but can be serious.

Hiatus hernia surgery complications

- Difficulty swallowing for a few months because the site where your stomach is wrapped around

your oesophagus is inflamed. This is normal and you should be able to swallow most foods normally by 3 months.

- Pneumothorax, where air escapes into the space around your lung. Sometimes the air will need to be let out by inserting a tube in your chest (chest drain) (risk: 2 in 100).
- The stitches used for the wrap may tear if you retch (strain to be sick) or vomit in the first few weeks. This may cause the wrap to become loose. Sometimes a tear can make a hole in your stomach that will need to be repaired by surgery straight away.
- Making a hole in your oesophagus or stomach, which needs repairing (risk: 1 in 100). This is serious but rare.
- Damage to your liver when holding it out of the way (risk: 5 in 100). If the damage is serious, you may need another operation.
- Wrap migration, where the wrap pushes up through the gap into your chest. This can cause a perforation or damage to the blood supply to the wrap (ischaemia). You will usually need another operation.
- Mesh erosion, where the mesh erodes through the oesophagus or stomach. This may be less likely if you have a biologic mesh. This is an uncommon but serious complication and you will usually need another operation.

Covid-19

A recent Covid-19 infection increases your risk of lung complications or death if you have an operation under general anaesthetic. This risk reduces the longer it is since the infection. After 7 weeks the risk is no higher than someone who has not had Covid-19. However, if you still have symptoms the risk remains high. The risk also depends on your age, overall health and the type of surgery you are having.

You must follow instructions to self-isolate and take a Covid-19 test before your operation. If you have had Covid-19 up to 7 weeks before the operation you should discuss the risks and benefits of delaying it with your surgeon.

Consequences of this procedure

- 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.
- Scarring of your skin. In some cases this can be unsightly.

Long-term problems

- Continued difficulty swallowing where you cannot swallow most foods normally (risk: 5 in 100). If you find that food such as bread and meat get stuck, avoid them.
- Tissues can join together in an abnormal way (adhesions) when scar tissue develops inside your abdomen. Adhesions do not usually cause any serious problems but can lead to bowel obstruction. The risk is lower if you have keyhole surgery.
- Weight loss during the first 2 months. It is normal to feel fuller than usual and you may be able to eat only small meals. Sit up when you eat and take a drink with your meal to help the food go down. Eat more often than before to try to keep your weight up. If you do lose weight, you will usually put it back on. If you have any concerns about your diet, ask the dietician.
- Abdominal discomfort (risk: 3 to 5 in 10). You will probably not be able to burp as usual, which can cause gas to build up in your abdomen (gas bloat). You may pass more wind than usual.
- Diarrhoea (risk: less than 3 in 100). If loose or more frequent stools are troublesome, your doctor may give you some medication to slow down your bowel.
- Recurrence of a hiatus hernia (risk: 10 to 30 in 100). This is when it happens again. If this happens it is usually much smaller than before and you may not need further treatment.

If any of these problems are severe and continue for more than 3 months, let your doctor know. You may need another operation (risk: up to 8 in 100).

How soon will I recover?

In hospital

After the operation you will be transferred to the recovery area and then to the ward.

You will be given anti-sickness medication. You will be able to drink from the first day and then you will go on a soft diet. You should no longer need to take your acid-reducing medication.

You should be able to go home the next day. However, your doctor may recommend that you stay a little longer, particularly if the operation was converted to open surgery.

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 1 to 2 days).
- Not opening your bowels and not passing wind.
- A swollen 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 straight away. 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 need to eat slowly and chew your food thoroughly. Eat only soft foods for a few weeks, gradually moving on to a normal diet when you can cope with it. Do not have fizzy drinks.

You should be able to return to work after 3 to 4 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. Before you start exercising, ask the healthcare team or your GP for advice.

Do not drive until you can control your vehicle, including in an emergency, and always check your insurance policy and with the healthcare team.

Ask your healthcare team if you need to do a Covid-19 test when you get home.

The future

You should make a full recovery, with the symptoms of acid reflux gone or much improved. You should be able to eat and drink normally without feeling sick.

Sometimes a hiatus hernia can happen again (risk: 10 to 30 in 100). If this happens it is usually much smaller than before and you may not need further treatment.

Summary

A hiatus hernia can cause heartburn or acid in your mouth. Large hernias can cause pain and problems with eating and drinking.

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 document. Use it to help you if you need to talk to the healthcare team.

Some information, such as risk and complication statistics, is taken from global studies and/or databases. Please ask your surgeon or doctor for more information about the risks that are specific to you, and they may be able to tell you about any other suitable treatments options.

This document is intended for information purposes only and should not replace advice that your relevant healthcare team would give you.

Acknowledgements
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