Brochure Code:
DC GS13

Procedure Name:
Day Case - Laparoscopic Inguinal Hernia Repair (TEP)

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What is an inguinal hernia?
An inguinal hernia is a common type of hernia, causing a lump and sometimes pain in the groin.
Your surgeon has recommended a totally extraperitoneal (TEP) 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 make an informed decision. If you have any questions that this document does not answer, you should ask your surgeon or any member of the healthcare team.

How does a hernia happen?
The abdominal cavity contains the intestines and other structures. These are protected by the abdominal wall, which is made up of four layers. The inner layer is a membrane. The second layer is a wall made of muscle. A layer of fat separates the muscle from the outer layer of skin. Weak spots can develop in the layer of muscle, resulting in the contents of the abdomen, along with the inner layer, pushing through the abdominal wall. This produces a lump called a hernia (see figure 1).

An inguinal hernia happens at the inguinal canal (see figure 2). This is a narrow passage in which blood vessels pass through the abdominal wall. The inguinal canal is prone to hernias, which can be due to a defect from birth or from gradual weakening of the muscles.

What are the benefits of surgery?
You should no longer have the hernia. Surgery should prevent you from having any serious complications that a hernia can cause and allow you to return to normal activities.

Are there any alternatives to surgery?
Surgery is recommended as it is the only dependable way to cure the condition. You can sometimes control the hernia with a truss (padded support belt) or simply leave it alone. It will not go away without an operation.

What will happen if I decide not to have the operation?
Hernias will get bigger with time. They can also be dangerous because the intestines or other structures within the abdomen can get trapped and have their blood supply cut off (strangulated hernia). This is serious and needs an urgent and bigger operation, with a higher risk of serious complications. If left untreated, a strangulated hernia can cause death.

What does the operation involve?
Inguinal hernias can be repaired using the laparoscopic (‘keyhole’) technique or by an open cut in the groin. Your surgeon has recommended a laparoscopic operation for you, as this is associated with less pain, less scarring and a faster return to normal activities.
The healthcare team will carry out a number of checks to make sure you have the operation you came in for and on the correct side. 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 about half an hour (less than an hour for a repair to both sides). You may also have injections of local anaesthetic to help with the pain after surgery. You may be given antibiotics during the operation to reduce the risk of infection. Your surgeon will make a small cut in or near your umbilicus so they can insert an instrument which inflates the abdominal cavity with gas (carbon dioxide). They will make two small cuts on your abdomen so they can insert tubes (ports) into your abdomen. Your surgeon will place surgical instruments through the ports along with a telescope so they can see inside your abdomen and perform the operation. Your surgeon will return the part of the abdomen showing out and causing the hernia, and insert a synthetic mesh to cover the weak spot. They will close the small cut and holes with stitches or glue.

In about 1 in 100 people it will not be possible to complete the operation using this technique. If this happens, the operation will be changed (converted) to either a transabdominal laparoscopic procedure, where the instruments are placed into the abdominal cavity, or to an open procedure.

What should I do about my medication?
You should make sure your surgeon knows the medication you are on and follow their advice.
You may need to stop taking warfarin or clopidogrel before your operation.
If you are a diabetic, it is important that your diabetes is controlled around the time of your operation. Follow your surgeon’s advice about when to take your medication.
If you are on beta-blockers to control your blood pressure, you should continue to take your medication as normal.

What can I do to help make the operation a success?
If you smoke, stopping smoking several weeks or more before an operation may reduce your chances of getting complications and will improve your long-term health.
Try to maintain a healthy weight. You have a higher chance of developing complications if you are overweight.
Regular exercise should help prepare you for the operation, help with your recovery and improve your long-term health. You should avoid exercises that involve heavy lifting or make your hernia painful. Before you start exercising, ask a member of the healthcare team or your GP for advice.

What complications can happen?
The healthcare team will try to make your operation as safe as possible. However, complications can happen. Some of these can be serious and can even cause death. 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, which happens with every operation. The healthcare team will try to reduce your pain. They 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 a laparoscopy, it is common to have some pain in your shoulders because a small amount of gas may be left under the diaphragm. Your body will usually absorb the gas naturally over the next 24 hours, which will ease the symptoms.
• Unsightly scarring of the skin.
Blood clots in the legs (deep-vein thrombosis), which can occasionally move through the bloodstream to the lungs (pulmonary embolus), making it difficult for you to breathe. The healthcare team will assess your risk. Nurses will encourage you to get out of bed soon after surgery and may give you injections, medication or special stockings to wear.

Bleeding during or after surgery. This does not usually need a blood transfusion or another operation but it is common to get bruising of the groin and, in men, bruising of the penis or scrotum.

Infection of the surgical site (wound). To reduce the risk of infection it is important to keep warm around the time of your operation. Let a member of the healthcare team know if you feel cold. In the week before your operation, you should not shave 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 your operation. After your operation, you should let your surgeon know if you get a temperature, notice pus in your wound, or if your wound becomes red, sore or painful. An infection usually settles with antibiotics but you may occasionally need another operation.

How soon will I recover?

In hospital
After the operation you will be transferred to the recovery area and then to the day-case ward. The healthcare team will tell you if you need to have any stitches removed or dressings changed.

You should be able to go home the same day. A responsible adult should take you home in a car or taxi and stay with you for at least 24 hours. You should be near a telephone in case of an emergency. You will need support for a few days.

At home
You should not drive, operate machinery (this includes cooking) or do any potentially dangerous activities for at least 24 hours and not until you have fully recovered feeling, movement and co-ordination. If you had a general anaesthetic or sedation, you should also not sign legal documents or drink alcohol for at least 24 hours.

Returning to normal activities
You may return to normal activities when you feel comfortable to do so, usually after one week. You do not need to avoid lifting but you may find it uncomfortable if you lift heavy weights within the first two to four weeks.

Regular exercise should help you to return to normal activities as soon as possible. Before you start exercising, you should ask a member of the healthcare team or your GP for advice.

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

3 Specific complications of this operation

a Laparoscopic complications

Surgical emphysema (crackling sensation in the skin due to trapped gas), which settles quickly and is not serious.

Injury to the bowel. This can happen during surgery or if the bowel becomes trapped between the mesh and the abdominal wall, causing bowel obstruction. You may need further surgery.

b Hernia repair complications

Developing a lump at the site of the original hernia (risk: 1 in 10). This is caused by a collection of blood or fluid and normally settles over a few weeks.

Discomfort or pain in the groin.

In men, discomfort or pain in the testicle on the side of the operation.

In men, difficulty passing urine. You may need a catheter (tube) in your bladder for a day or two (risk: 1 in 100).

In men, damage to the blood supply of the testicle (risk: less than 1 in 1,000). The testicle on the same side as the operation may shrink and become non-functioning.
• The future
Most people make a full recovery and can return to normal activities. Occasionally the hernia comes back (risk: less than 3 in 100). This depends on the size of the hernia, the strength of your abdominal muscles, if you are overweight or if you have underlying medical problems. The hernia can come back many years later and may need another operation.

Summary
An inguinal hernia is a common condition caused by a weakness in the abdominal wall, near the inguinal canal. If left untreated, an inguinal hernia can occasionally cause serious complications. Surgery is usually safe and effective. However, complications can happen. You need to know about them to help you make an informed decision about surgery. Knowing about them will also help to detect and treat any problems early.

Acknowledgements
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