HERNIA REPAIR

Patient Information Dr Tony Pang

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What is a hernia?

A hernia is a lump caused by the protrusion of abdominal contents through a weakness in the abdominal wall. The abdominal wall surrounds the organs including the bowels and some abdominal fat called the omentum. When there is a weakness or defect in the abdominal wall, the pressure within the abdomen may force out a loop of bowel or the omentum (fat) through this. This reveals itself as a lump under the skin.

As hernias occur in areas of weakness, it could occur anywhere on the abdominal wall. The common places for it to occur include the groin, the midline of the abdomen (especially at the belly button) and along scars from previous surgery.

These hernias have various names depending on the location. In the groin, it could be an inguinal or femoral hernia, in the belly button it is an umbilical hernia and in scars from previous operations, it is called an incisional hernia.

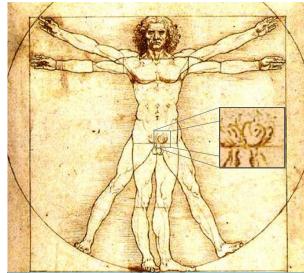
How are hernias repaired?

As hernias are caused by a weakness in the abdominal wall, repair of the hernia involves reinforcing the weakness. The general steps of a hernia repair are:

- The area of the abdominal wall weakness is found
- The contents of the hernia is inspected for injury if there were no evidence of injury then it is pushed back into the abdomen. If there were evidence of injury, especially to the bowel, this may require removal.
- The defect, now clearly defined is repaired if this were small, it can be repaired by stitching up the defect. If it were large, it is reinforced by placing a piece of "mesh" to cover the hole. The mesh is made of a type of plastic which stays in the body and allows the body to grow around it. The mesh is important as it reinforces the area and reduces the chance of recurrence.

The hernia can often be repaired either by key hole surgery (laparoscopically) or by open operation.

The surgery will take about an hour for groin and umbilical hernias and can take a few hours for incisional hernias. For groin and umbilical hernias, expect to either be discharged the day of surgery or the day after surgery. For incisional hernias, you may need to stay a few days.



Did you know? The famous "Vetruvian Man" by Leonardo da Vinci might possibly depict a man with a left inguinal hernia.

Weak abdominal layer Inquinal hernia A left inguinal hernia. Groin hernias (inguinal or femoral) are one of the commonest types of hernias. Source: from Vimeo clip by Lee Memorial Health System under CC licence

Do all hernias need to be repaired?

Hernias may require repair due to the following reasons:

- The lump (from the hernia) causes significant discomfort or inconvenience which affects quality of life;
- The abdominal contents pushed out cannot be pushed back in (irreducible)
- To reduce the risk of "strangulation" of intestines which have been pushed out but cannot be pushed back in.

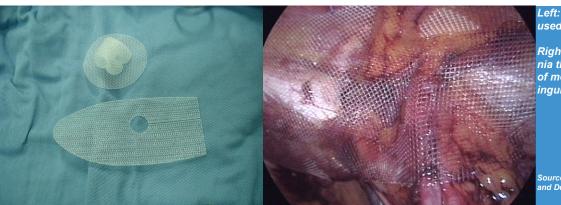
The risk of "strangulation" of the bowels varies depending on the type of hernia. In general, groin hernias have a higher risk than an umbilical hernia. Incisional hernias vary depending on the size of the defect – larger defects allow the bowels to move in and out freely and paradoxically carry a lower risk.

What are the risks of a hernia repair?

Like all procedures, a hernia repair has risks associated with it. Firstly, there are risks associated with the anaesthetic. These will vary depending on your age and other medical issues. The anaesthetist will assess you in the pre-admissions clinic and will explain more about this to you.

Second, there are the surgical risks. These vary depending on the type of hernia repair, but in general, include:

- Recurrence With modern surgical techniques and the use of mesh as necessary, the risk of recurrence should be less than 1 in 20 operations. In general, the larger the hernia initially, the greater the risk of recurrence.
- Injury to the contents of the hernia As the hernia often contains intestines or other abdominal contents, an operation can potentially damage this. If the contents were strangulated by the hernia, there is a possibility of the need to remove the damaged/dead intestine.
- Damage to surrounding structures this obviously depends on the type of hernia and its location in the body. In particular, there are a few structures close to groin hernias which may be damaged. The vessels to the testicles (in men), the main vein draining the legs and the nerve supplying sensation a small patch of skin in the scrotum or labia may be damaged in groin (femoral or inguinal) hernia repair.
- The nerve mentioned above In a small proportion of patients, the sutures can catch onto this nerve and may cause long-term groin pain/discomfort. Usually, the surgeon will pay close attention to protecting the nerve from damage. Some surgeons routinely will cut the nerve to prevent long term pain, but this will cause a small patch of numbness in the scrotum/labia which will generally improve with time.



Left: Examples of meshes used for hernia surgery.

Right: Internal view of a hernia that is covered by a piece of mesh (during laparoscopic inguinal hernia repair)

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How do I prepare myself for surgery?

You will be asked to fast for a period of time before surgery. Depending on when your operation is scheduled, it is generally either midnight the night before or after an early morning breakfast on the day of surgery. On the morning of surgery, you should take all your medications except for your diabetic medications and blood-thinning medications. Your surgeon or anaesthetist will give you specific advice regarding this. If you have blood thinners such as aspirin, warfarin, clopidogrel etc, you should inform your doctor so that appropriate instructions are given to you as you may need to stop these for a few days prior to surgery.

Specific instructions after surgery?

You will be a bit sore for about a week. You should therefore take regular pain killers for at least three days after surgery. Your surgeon will give you instructions regarding the specific medications to take. There are no dietary changes required after surgery.

The repair is going to take some time to heal, so please do not lift anything heavy (>10kg) or do anything strenuous for six weeks. Apart from that, you are allowed to walk around and do all your usual daily activities. You should avoid driving for a week after the surgery as pain in the abdomen will influence your reaction in case of emergency.

The dressings will generally consist of an external dressing covering some tape across the wound (Steristrips). The external water-proof dressing can come off in 3 days and the Steristrips in one week. You can shower over the wound from the first day after surgery. After a shower, just pat the wound dry. Avoid baths or swimming for two weeks.



