Patient information

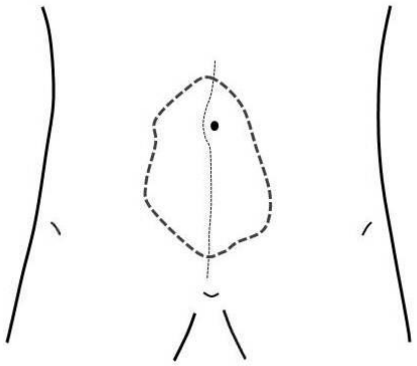
Laparoscopic or Open Incisional Hernia Repair

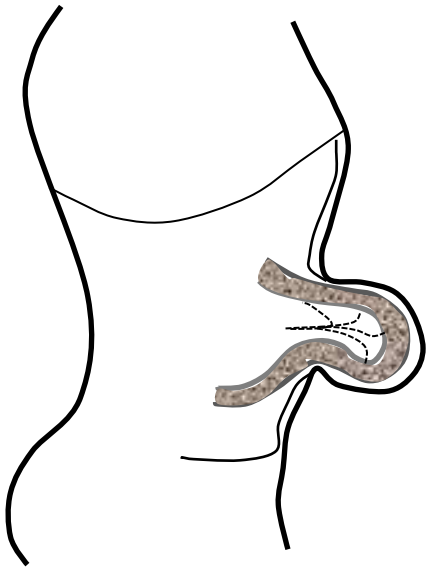
General Surgery- Aintree Hospital

What is incisional hernia?

An incisional hernia is usually protruding weakness in a scar over abdomen from previous surgery.

Some thinning of the scar may happen after it has healed from the original surgery. This results in development of weakness causing internal organs (mostly bowel) to protrude out in a sac like appearance.





Why does incisional hernia happen?

Incisional hernias occur as a result of weakening of scar tissue.
Sometimes during the healing process of wounds over the tummy, there may be infection or excessive stress exerted and this can result in inadequate/inappropriate healing of the wounds.

This results in weakening of the scar. If this thins out excessively, then the constant pressure of the abdominal contents (gut) can stretch this and result in herniation or outpouching.

Too early exertion or excessive coughing or abdominal strain in early phase of healing (up to three months after an operation) can also contribute to hernia formation.

Smoking, diabetes and patients with healing inadequacies are also prone to this.

What can be the complications of incisional hernia?

Incisional can be quite unsightly and can occasionally cause strangulation of the protruding bits – fat or bowel.

More commonly intermittent adhesive pain (due to sticking of bowel loops to each other and in the sac) is more common. Sometimes this results in partial bowel blockage.

All the above conditions require patients to get admitted to hospital as an emergency.

How do you treat incisional hernia?

Uncomplicated incisional hernias can be treated electively (non-emergency) with surgery to repair the defect.

Repair can be done by simple suturing (stitching) or by use of a patch of synthetic material (mesh). Surgery can be done by standard open operation or by key-hole surgery.

Complicated incisional hernias (with obstruction or stangulation) often reqires emergency operation.

If bowel resection (removal of the dead bit of bowel) is required then the repair is attempted by simple stitching of defect as a mesh cannot be used.

If no bowel is removed, then a mesh may still be employed for closure of the defect.

Are there any alternatives?

If patients are unfit for surgery due to co-existing serious medical problems, conservative measure such as an abdominal truss (like a corset) can be used.

This is available from the Prosthetic Department with prescription from the Consultant Surgeon.

Patients carrying excessive weight are advised to undergo appropriate weight loss before undertaking surgical treatment.

This is done to avoid recurrence, the risk of which is high in this group of patients.

A truss may be a helpful interim solution in this group.

Sometimes patients with partial blockage of bowel can be treated with non-surgical means (whilst admitted to hospital) and then subsequently referred to an appropriate surgeon for consideration of either an open or key-hole surgery.

What does the operation involve?

The procedure is usually performed under general anaesthetic.

Open surgery

Open surgery involves opening up of the original scar tissue area.
So the length of the new scar is either the same length or slightly more than the original.

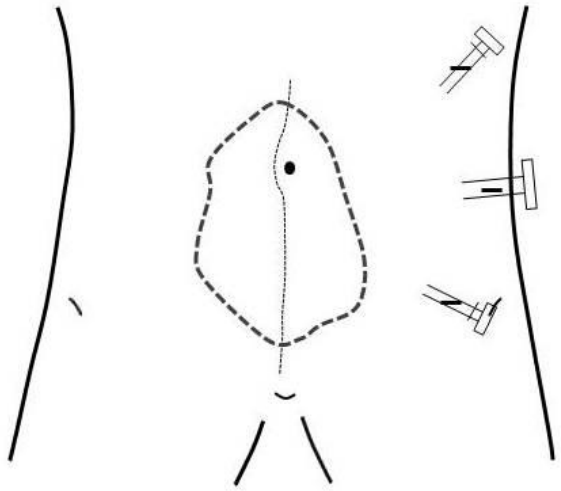
The defect in the muscles is identified, the hernia is reduced (pushed back into the tummy/abdomen) and the defect is repaired.

Depending on the size of the defect and the method employed, this can be either closed by stitches (primary closure) or by using a synthetic patch of material (mesh).

Laparoscopic (Keyhole) surgery

Key-hole or laparoscopic surgery can be employed to the same type of patch-repair from the inside.

The approach to the insides is away from previous scar tissue.



A laparoscope (tiny telescope) connects to a special camera and is inserted to allow the surgeon a magnified view of your internal organs on a television screen.

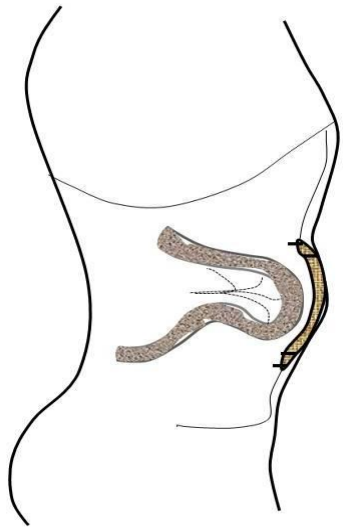
Your abdominal cavity will be inflated with gas (carbon dioxide).

Several other (usually two) small cuts will be made in your abdomen so that tubes (ports) can be inserted to allow the surgeon to place instruments through the ports in order to delicately separate the adhesions near the hernia.

The protruding contents (bowel or fat) will be released and brought back into the abdomen.

Once the defect in the muscles of the abdomen is defined, a synthetic piece of special material (mesh) is used to bridge this defect.

It may be fixed in position by use of staples or by stitches or sometimes using both (as deemed necessary by the surgeon).



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

Lifestyle changes

If you smoke, try to stop smoking now. There is strong evidence that stopping smoking several weeks before general anaesthetic reduces your risk of getting complications.

If you are overweight, losing weight will also reduce our risk of developing complications.

If you need help to stop smoking or lose weight, ask a member of the healthcare team or your GP for advice.

Medication

You should continue your normal medication unless you are told otherwise. You should inform your surgeon if you take **aspirin, warfarin** or **clopidogrel**.
Follow your surgeon's advice about stopping this medication before your operation.

What complications can occur?

The healthcare team will try and make your operation as safe as possible. However, some complications can happen, some of these can be serious and can even cause death.

You should ask your doctor if there is anything you don't understand. Your doctor may be able to tell you if your risk of complications is higher or lower for you.

The complications fall into three categories:

1. Complications from anaesthesia.
2. General complications of any operation.
3. Specific complications for this operation.

1) Complications from anaesthesia

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

2) General complications of any operation

- **Pain –** It is normal to have pain after surgery. The healthcare team will try and reduce your pain by giving you medication to control it.

  It is important you take your medication as advised so that you can move about and cough freely. After a laparoscopy, it is common to feel bloated and to have pain in your shoulders because a small amount of 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.

  You may also notice that you have a slightly sore throat. This is due to the 'breathing' tube which is placed in your throat during surgery and should subside in a day or two.

- **Bleeding –** Some bleeding during or after surgery is always likely. It rarely requires blood transfusions or further surgery.

- **Infection in the surgical wound –** This may require treatment with antibiotics or occasionally further surgery.

- **Blood clots –** In the legs (deep vein thrombosis). This can occasionally move through the bloodstream to the lungs causing a pulmonary embolism (PE), making it difficult for you to breathe.

  The nurses will encourage you to mobilise soon after surgery and may give you injections to reduce the risk of blood clots.

3) Specific complications for this operation

A. Open Surgery

- **Wound collection –** you can develop collection of tissue fluid under the flaps of loose skin, which may have to be drained with a needle.

  This is more commonly seen after very large hernia repairs and tends to come up after a few days or weeks after surgery.

- **Wound infection –** sometimes the above mentioned collection under the skin cut can get infected and then the wound has to be opened up to drain this.

  Rarely the mesh inside can get infected (see below) and may necessitate removal.

- **Wound dehiscence –** this is where the skin wound separates and has to

be packed with dressing material to allow slow healing.

This and wound infection is common in those who carry a lot of weight (obese) people or those who are malnourished or diabetic.

B. Laparoscopic complications

- **Damage to internal organs –** When placing instruments into the abdomen (risk 1 in 1,000). The risk is higher in people who have previously had surgery to the abdomen.

  If an injury does happen during key-hole surgery, you may require open surgery, which involves a much larger cut.

  About one in three of these injuries is not obvious until after surgery, so if you have been in pain which does not improve each day after surgery, you should let your doctor know.

- **Developing a hernia near one of the cuts used to insert the ports –** (Risk 2 in 10,000).

  Your surgeon will try and reduce this risk by using small ports (less than 10mm in diameter) where possible or, if they need to use larger ports, using deeper stitching techniques to close the cuts.

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

C. Complications common to both open and laparoscopic surgery

1. **Mesh infection**
   This is an uncommon complication. This usually manifests a few days or weeks after surgery in form of persistent pus discharge from the hernia operation wound (very rarely away from main wound). This requires surgery to remove the infected mesh and antibiotics.

   Sometimes the wound is left open after removal of mesh and takes a few days to heal properly.

2. **Recurrence**
   The risk of the hernia coming back is common in big incisional hernia repairs.

   High risk cases are those who carry a lot of weight (obese) or those who are diabetics or have wound healing problems.

How soon will I recover?

In hospital

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

Open operation –

Patient having open operation will need to stay in the hospital for between two-seven days or more depending upon the extent of surgery and post-operative pain.

Key-hole or Laparoscopic operation –

Patients should be able to go home later that day or the following day. Sometimes when there are a lot of adhesions and the operation takes a long time patient may need to stay in for about two-three days.

At home

- **Returning to normal daily activities –** After a week or so you should be able to resume most of your normal daily activities.

  It is normal to feel tiered after surgery, so take some rest, two to three times a day and try and get a good night sleep.

  You should avoid heavy lifting and vigorous exercise for at least six weeks.

- **Driving –** You should not drive for at least one week.

  Before driving you should ensure that you can perform a full emergency stop, have the strength and capability to control the car, and be able to respond quickly to any situation that may occur.

  Please be aware that driving whilst unfit may invalidate your insurance.

- **Returning to work –** You can return to work as soon as you feel well enough.

  This will depend on how you are feeling and the type of work you do. Typically you will need between three and six weeks off work.

- **Eating –** There are no dietary restrictions following incisional hernia repair.

  Sometimes patient may need to stay on low residue diet if there is history of recurrent colicky pains due to adhesion problems.

  This is best discussed with your surgeon.

- **Bowels –** You may find it takes three or four days to have normal movement.

  If you have not had a bowel movement in three days following surgery, a mild laxative should help. Your local chemist should be able to advise you.

  Remember to drink plenty of fluids so that you don’t get dehydrated.

When should I seek advice?

If you have a discharge of blood or pus from your wounds.

- If you develop a temperature above 38.5C.

- Vomiting that continues for more than three days after surgery.
- Inability to have a bowel movement after four days.
- Persistent pain not relieved with your prescribed painkillers.
- Persistent abdominal distension (bloating of your stomach).
- Increasing pain or swelling around your wounds.
- If you see recurrent big lump in your scar tissue.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

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