What is a hernia?

A hernia forms when there is a weakness in the muscle of the abdominal wall; it shows itself as a lump. With activity during the course of the day, this lump usually becomes more noticeable. The lump generally goes over night and does not then cause pain. As the lump becomes more noticeable it will cause some discomfort. Hernias can occur around the umbilicus (tummy button), at the site of a previous operation (incisional hernia) or in the groin (also known as inguinal and femoral hernias).

This leaflet deals with incisional, umbilical and epigastric hernias. The other most common abdominal wall hernia is an inguinal hernia. This is explained on a separate leaflet.

The first section of the leaflet deals with incisional hernias since these are the most complicated to treat. Later, the other hernias are defined and the minor differences in treatment from that of the incisional hernia are explained.

What is an incisional hernia?

An incisional hernia is a bulge or swelling that appears at the site of a previous operation.

The size of the hernia is related to the size of the original wound, and part or all of the wound may be involved. With time, incisional hernias can get bigger. The risk of developing an incisional hernia depends on a number of factors, such as poor diet, severe wound infection, obesity or diabetes at the time of the original surgery. Smoking also increases the risk.

They are less common after laparoscopic (key hole) surgery but it is a fairly common complication after laparotomy (open surgery), where it is estimated to occur in approximately 4 - 10 out of 100 of patients.

What is an umbilical hernia?

An umbilical hernia is a bulge through the belly button. The hernia comes through the abdominal wall near to the natural weakness in the abdomen where the umbilical cord was connected.
What is an epigastric hernia?
An epigastric hernia is a bulge in the abdominal wall in the midline between the belly button and the lower end of the breast bone. They occur because of a weak area between the two muscles that run vertically either side of the middle of the tummy.

What are the options for treating an abdominal hernia?
Left untreated a hernia will get larger and cause more symptoms. The majority of people have their hernia repaired within five years of noticing it.

A support may be worn which controls the weak area and may reduce discomfort. The support does not cure the hernia and can be uncomfortable. It is not always effective.

You can decide not to have surgery at this stage. We will give you more information if this is the case. You can always ask your GP to refer you back to the clinic if your hernia gets worse.(Please ask for a copy of the leaflet ‘should I have my hernia repaired now or wait’ if you have not already been given one.

Why should I have my hernia repaired?
A hernia can cause you discomfort, particularly when you are lifting things. Most people decide to have an operation because of the pain and discomfort the hernia causes.

Rarely a hernia that has been bothering you will become ‘stuck out’ and can no longer be pushed back (strangulated hernia). A hernia strangulates when too much intestine (bowel) has come through the weak area and then it becomes trapped. This can cut off the blood supply to the portion of intestine in the hernia. This can lead to severe pain and some damage to the part of the intestine in the hernia. This is a serious problem and needs an urgent operation. If an emergency repair is needed, it is much more dangerous than a planned operation.

It is important to compare the symptoms that you have from your hernia with any problems you may get from the operation and after. We will help you to balance these risks. Particularly in elderly people, hernias causing no symptoms do not necessarily need to be repaired.

How is a hernia repaired?
In the past, repair was done by pulling the tissues on either side of the weakness together; the modern method is to patch the weak area with a mesh. The mesh used is a plastic net-like material. This sits in position forever supporting the weak area. The mesh does not react with normal tissues and causes no damage. You are likely to get aching and pulling during the first month after the operation. As you become more active, the tissues are stretched and become supple again. Mild twinges in the area of the hernia can continue for some months after the operation – no damage is being done.

The skin cuts are generally closed with absorbable stitches that do not need to be removed. These wounds should heal simply and you do not normally need to see your Practice Nurse after surgery. Your wounds will be uncomfortable, red with some bruising, but this should be improving by the third day after your operation. If not, there may be a problem and you should make an appointment to see your GP.
The hernia repair is usually performed as a day case. You will be able to go home on the day of the operation. Occasionally, patients who expect to go home on the day of surgery may need to stay in overnight. Less often, for medical reasons or because of home circumstances, the operation will be done as an in-patient. In this case you can usually go home the day after the operation.

**Open repair**

In an open repair, a cut is made in the abdominal wall. The size of this depends on the size of the hernia, but can be many inches. The hernia is repaired by strengthening the weakness in the abdominal wall using a patch of mesh that is stitched in place. If the hernia is large, this is a major surgical procedure.

**Laparoscopic repair**

Increasingly, because our experience with the key-hole approach has been very favourable, we are offering this operation to the majority of patients (see choice of operation below). In a laparoscopic repair the surgeon uses special instruments and a camera and small incisions are made to perform the hernia repair. The hernia is repaired in much the same way as with an open operation, but through three small (0.25 to 0.5 inch) cuts, rather than through one large one. The mesh is put into the abdomen behind the muscle. Once in position, as you strain, you push the mesh more firmly against the weak area.

**Choice of operation**

Many hospitals only provide open repair. Here in Salisbury we are also able to offer key-hole techniques which, in our experience, patients prefer. A key-hole operation is not possible for all patients and is not indicated if the hernia is very small; your surgeon will discuss this with you. If you have cardiac or severe lung disease, it may be that the key-hole approach is more risky for you. Also if your hernia is huge, it may not be possible to put the laparoscope into the abdomen safely. Sometimes a CT scan can help with making the decision.

**Advantages of key-hole operation**

- The recovery is quicker, so usually you can return to normal activity within 2 weeks. Recovery is up to six weeks after an open repair
- There is a much lower risk of long-term pain after a key-hole repair
- There is less chance of the hernia coming back after a key-hole repair.

But

- The operation is technically far more difficult than an open operation and you need to make sure that your surgeon has experience in doing this type of operation. The consultant surgeons in Salisbury train doctors from other hospitals to do this operation.

It is important to note that many hospitals and treatment centres do not offer the full range of surgical options.
### Specific risks of the procedures

<table>
<thead>
<tr>
<th>The risk</th>
<th>What happens</th>
<th>What can be done about it</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection</td>
<td>A wound may become infected causing pain, redness and possibly discharge. The rate of risk is less than 1 in 10.</td>
<td>Infections are usually minor and are treated successfully with dressings and/or antibiotics</td>
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<tr>
<td></td>
<td></td>
<td>Infection is less common and less troublesome after a key-hole operation.</td>
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<tr>
<td>Bleeding into the wound</td>
<td>Bleeding under the skin can produce a firm swelling - like a bruise. Some bleeding may occur in around 1 in 10 operations.</td>
<td>The bruise may simply be absorbed gradually or leak out through the wound. Very rarely, if there is a lot of fluid, a second operation may be needed.</td>
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<td>The hernia recurs</td>
<td>The hernia comes back.</td>
<td>Further surgery for repair is required</td>
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<tr>
<td></td>
<td></td>
<td>The risk is up to 40% following an open repair and in the region of 10% after a key-hole operation</td>
</tr>
<tr>
<td>Swelling at the site of your previous hernia</td>
<td>There is often a swelling where the hernia had been, this is a localised bruise and not the hernia returned</td>
<td>This swelling settles over time</td>
</tr>
<tr>
<td>Unable to pass urine after operation</td>
<td>Difficulty urinating after surgery is not unusual but the problem does not last long.</td>
<td>May require a temporary tube into the urinary bladder.</td>
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<tr>
<td>Damage to an internal structure</td>
<td>Rarely a piece of bowel, bladder or a blood vessel may be injured.</td>
<td>Further surgery for repair will be required</td>
</tr>
<tr>
<td>Pain</td>
<td>All operations have some pain. Some patients have discomfort from the staples for some months after key-hole surgery.</td>
<td>The pain normally resolves without treatment over time.</td>
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<tr>
<td></td>
<td></td>
<td>Pain is usually far less after a key-hole operation</td>
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</table>

### Risks specific to the key-hole operation

| Hernia at the site of instrument insertion | A small hernia may form through one of the small cuts, this is rare - occurring in less than one in fifty operations | These hernias usually need to be repaired by further surgery. |
| Need for open surgery                  | Keyhole surgery may not work and open surgery is needed – less than 1 in 10 patients | Since open surgery needs a bigger cut in the abdomen, a longer stay in hospital is needed |
Are epigastric or umbilical hernias treated differently from incisional hernias?

The way that the hernias are treated is very similar, as are the risks of the operation, but because epigastric and umbilical hernias are a little easier to treat, the chance of complications occurring will be less than for incisional hernias.

The advantages of laparoscopic repair over open repair are less clear-cut than for an incisional hernia. The decision between the two methods is finely balanced and the reasons for recommending one over the other will be discussed with you.

What happens next?

You will be sent a leaflet with your admission date which tells you what to expect on the day of your operation.

After your operation the nurses will give you a leaflet which tells you what to expect after the operation and how to make sure that your recovery is as smooth as possible. As general guidance, you should expect to take about 2 weeks to recover from a key-hole operation (longer if your operation is by the open technique).