

# Incisional And Ventral Hernia

## What is an incisional and ventral hernia?

An incisional hernia is a protrusion (bulging) of the abdominal lining or a portion of abdominal organ(s) through an area of weakness through the scar of a surgery performed in the abdominal area from the breastbone to the groin. The ventral hernia is used for hernias that occur in the abdomen, commonly in the midline. When present around the navel it is called a paraumbilical hernia and when it is present above the navel it is called an epigastric hernia.

## What causes an incisional / ventral hernia?

Men, women, and children of all ages may develop an incisional hernia after abdominal surgery. Incisional hernias occur more commonly among adults than among children. Incisional hernias may occur after major surgeries such as intestinal surgery or after relatively smaller surgeries such as an appendectomy. They may affect a small portion of the scar of the previous operation or protrude along the entire length of the scar. Incisional hernias develop as result of inadequate healing in the incision of surgery or excessive pressure on the abdominal wall scar. The factors that increase the risk of incisional hernia are conditions that increase strain on the abdominal wall, such as obesity, advanced age, malnutrition, pregnancy, dialysis, excess fluid retention, and either infection or hematoma (bleeding under the skin) after a prior surgery. Also, people who have been treated with steroids or chemotherapy are at greater risk for developing incisional hernias because of the affect these drugs have on the healing process. If the sutures used to close a surgical wound are placed too tightly they create tension on the edges being approximated. Such tightly placed sutures can cut through leaving areas of weakness in the incision as it heals. An incisional hernia may develop through these weak areas at a later date. Ventral hernias occur in areas of abdominal wall which are weak, e.g. the navel.

## What signs and symptoms do these hernias produce?

You will notice a bulge at the site of a scar within a few months or several years after a previous surgery. Similarly with a ventral hernia there is a bulge around the navel or just above it. Such a bulge usually becomes bigger with time. The bulge is invariably accompanied by a heavy dragging sensation at the site that is aggravated by activities such as coughing or straining. When the hernia becomes large the skin overlying it may become thinned out or even break down from the pressure of the contents inside the hernia. The intestine contained inside an incisional / ventral hernia may get temporarily blocked producing colicky abdominal pain, bloating and constipation. Such symptoms may occur at regular intervals, be intermittent and pass off on their own. Occasionally, however, the intestine trapped inside the hernia does not go back into the abdominal cavity resulting in an "incarcerated" hernia. The bulge under the skin becomes painful and is associated with severe pain in the whole of the abdomen. Nausea or vomiting may follow. This is an emergency that requires prompt medical attention.

## What examination and tests will I need?

An incisional / ventral hernia is usually diagnosed by the doctor by performing a physical examination. If you have a large, complex incisional / ventral hernia the surgeon may order a CT scan to study the area of weakness in the abdominal wall and the contents of the hernia so as to allow him to plan the surgery. You will have to undergo certain laboratory tests, x-ray of the chest and ECG as a part of workup before surgery when this is suggested by your doctor.

## What are the possible complications of the hernia?

Incisional and ventral hernias, particularly those with a narrow neck (area of weakness through which the intestines come out) have a high chance of getting incarcerated. The intestines or other tissues that are pinched by the neck may lose their blood supply and die.

**What are the treatment options?**

There are no medicines that can treat an incisional or a ventral hernia. A belt or a corset worn to apply pressure to the site of the hernia is not a good idea because it does nothing to repair the hernia. It just minimizes symptoms by preventing significant herniation. As a result, the hernia continues to get larger. In addition, there will be scar tissue formed that provides no strength to the area. Both of these factors, enlargement of the hernia and scarring, make the surgical repair of the hernia more difficult and later recurrence more likely. By and large most incisional and ventral hernias require surgery, which is the only definitive treatment.

**How is laparoscopic hernia repair performed?**

This technique of hernia repair is performed under general anesthesia. Your surgeon will make a small (1cm) cut on one side of the abdomen away from the bulge of the hernia and introduce a cannula (a tube-like instrument) inside the abdomen. He will insert a laparoscope (a telescope) attached to a miniature video camera through the cannula that gives him and the operating team a magnified view of your internal organs on a video monitor. He will then place two additional cannulas through tiny (5mm) cuts to accommodate special long instruments. The surgeon will pull the intestines or other tissues protruding into the hernia back into the abdominal cavity and expose the weak area in the abdominal wall from inside. This area is covered with a special large mesh that is fixed to the abdominal wall. Following the repair, the surgeon will close the small incisions with stitches.

**What happens after the operation?**

You may have been kept fasting for up to six hours after surgery carried out under spinal or general anesthesia. You may be given a saline drip for a few hours. In the first few hours after recovery you patients may experience some nausea, but this soon passes away.

**What about the pain after surgery?**

In laparoscopic incisional or ventral hernia surgery the mesh is fixed from the inside as multiple places and this does produce pain, sometime severe, for the first 24 – 48 hours. All patients are prescribed medicines to control the pain for as long as is necessary. Also, you will be encouraged to get out of the bed soon after the operation despite the slight discomfort. Over a period of time the pain will gradually reduce and become almost negligible.

**How soon can I resume work?**

This depends very much on the nature of the job you do and the type of operation you have had. With the open repair you may be advised take it easy for upto six weeks and you will not be allowed to lift heavy objects for upto three months. If you have a laparoscopic repair you can return to light desk job work within 10 – 15 days after surgery and almost all activities will be permitted after about three weeks after surgery.

**Is everyone a candidate for laparoscopic incisional hernia repair?**

Only after a thorough examination can your surgeon determine whether laparoscopic hernia repair is right for you. The procedure may not be best for you if you have underlying medical conditions due to which you cannot be given a general anesthetic. Also, patients with incisional or ventral hernias which have a defect of more than 10 cm in size are often best treated by an open operation. Also, laparoscopic surgery is usually avoided when the patient presents as an emergency with a hernia that is likely to have obstructed or gangrenous intestine. In fact, in such cases the repair is usually done without using a mesh (for the fear of infection), and is therefore not the most satisfactory repair.

**What about the cost of the laparoscopic repair?**

The cost of a laparoscopic repair of an incisional hernia tends to be higher than the open repair as a special type of mesh and an instrument to fix the mesh from inside (tacker) is used. However, the

increased cost is more than offset by savings in terms of an earlier return to activities, to work and reduced disruption of the routine of the family caring for the patient in the hospital.

**What are the advantages of a laparoscopic incisional hernia repair?**

- No tubes placed to drain fluid from the wound after surgery
- Shorter hospital stay
- Shorter recovery time
- Faster return to normal diet
- Faster return to work or normal activity
- Less restriction in terms of activity as compared to after an open repair
- Better cosmetic healing

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