Introduction
Hernias are common conditions that affect men and women of all ages.

Your doctor may have recommended a hernia operation. The decision whether or not to have this surgery is also yours.

This reference summary will help you understand better the benefits and risks of this surgery.

Anatomy
The stomach and intestines help digest and absorb the food we eat.

The stomach and intestines are inside the abdomen. They are covered and protected by three layers. The first layer is a thin membrane called the peritoneum. The second layer is a wall made of many muscles and fibrous tissue.

Symptoms and Their Causes
If the muscles of the abdomen become weak, the intestines, or fatty tissue, along with their first covering, the peritoneum, can push through the weak spot. This feels like a bulge under the skin. This is called a hernia.

There are four main types of hernias: umbilical, groin, ventral, and incisional. This summary describes the treatment of incisional and ventral hernias.

An incisional hernia appears at the site of the incision of a previous abdominal operation. This can happen soon after the operation or many years later. Ventral hernias occur because of a weakness in the muscles and tissues of the abdomen.
The weakness in the muscles could be made worse by the lifting of heavy objects. It could also result from gradual weakening of the muscles from continual stress. Hernias tend to get larger with time.

Hernias can be dangerous, because some of the structures inside the abdomen, such as the intestines, can get stuck or twisted inside the hernia and cut off their own blood supply. This is known as a strangulated hernia. This type of hernia could lead to the death of that part of the intestines and would require a more complex and riskier operation.

Surgery is the only definite way to correct the problem.

**Surgical Procedure**

Incisional and ventral hernia repair can be done under local or general anesthesia depending on the size of the hernia and the patient’s preference.

There are 2 ways to repair these hernias.

- One method, known as open hernia repair, uses a skin incision over the area of the hernia.
- A hernia could alternatively be repaired with scopes and smaller incisions. This is known as laparoscopic hernia repair.

The benefits of the laparoscopic operation are a faster recovery period and shorter hospital stay. Not everybody is a candidate for laparoscopic hernia repair. For example, patients with previous abdominal operations or abdominal adhesions are occasionally not candidates for this procedure.

Sometimes the surgeon can start a laparoscopic operation and end up having to switch to an open surgery. This is usually done if the surgeon realizes that the open surgery is safer for a specific patient. This, however, rarely happens.

The open surgery could be performed under local, epidural, spinal or general anesthesia. The laparoscopic surgery is always done under general anesthesia. Your doctor and anesthesiologist will discuss with you the best suited anesthesia in cases of open surgery.
In the open surgery, the surgeon makes an incision in the area of the hernia. The contents of the hernia are pushed back into the abdomen. The muscles and fascia are sutured back together.

If the defect is large and the muscles cannot be sutured together, your doctor might choose to place a mesh to cover the defect. The surgeon then closes the skin.

With the laparoscopic operation, the abdominal cavity is filled with the special gas.

Multiple small incisions are made and scopes are inserted in the abdominal cavity. The intestines and peritoneum are then pushed back into the abdomen. A mesh is placed to correct the defect.

Risks and Complications
This surgery is very safe. There are, however, some possible risks and complications. These are unlikely but possible.

You need to know about them just in case they happen. By being informed, you may be able to help your doctor detect complications early. The risks and complications include those related to anesthesia and those related to any type of surgery.

Risks of general anesthesia include nausea, vomiting, urinary retention, cut lips, chipped teeth, sore throat, and headache. More serious risks of general anesthesia include heart attacks, strokes, and pneumonia. Your anesthesiologist will discuss these risks with you and ask you if you are allergic to certain medications.

Blood clots in the legs can occur due to inactivity during and after the surgery. These usually show up a few days after surgery. They cause the leg to swell and hurt. Blood clots can become dislodged from the leg and go to the lungs where they will cause shortness of breath, chest pain and possibly death. It is extremely important to let your doctors know if any of these symptoms occur.
Sometimes the shortness of breath can happen without warning. Getting out of bed shortly after surgery may help decrease the risk of blood clots in the legs.

Some of the risks are seen in any type of surgery. These include:

1. Infection. Infections can involve the abdominal incision. Treating infections may require antibiotics and possibly surgery to drain the infection.
2. Bleeding, either during or after the operation. It might cause bluish discoloration of the skin.
3. Skin scars that may be painful or ugly.

Other risks and complications are related specifically to this surgery. These again are very rare. However, it is important to know about them.

Structures in the abdomen could be damaged. Such problems can include the following:

- The liver could be damaged.
- The intestines and stomach could be perforated.
- The kidneys, the urinary bladder, and the connecting tubes could be affected.
- Internal female organs such as the uterus and ovaries could be affected.
- The blood vessels going to the liver and the rest of the organs could also be affected.

Damage to these structures could lead to permanent damage and the necessity to proceed with other operations. These again are very rare. In extremely rare cases, death may result from these complications.

The hernia could happen again or recur.

If you had a mesh put in during surgery and you develop an infection you might need to have the mesh removed to help clear the infection.
After The Surgery

After the operation is done, the patient is transferred to the recovery room and then home or to a regular room. Most patients go home the same day of the surgery.

Some swelling around the incision and bluish discoloration is normal.

To prevent the hernia from coming back, no heavy lifting, bending, or twisting is allowed for a few weeks.

Depending on your condition, your doctor will help you decide when you will go back to work and under what restrictions.

Make sure to contact your doctor in case of any new symptoms, such as fever, severe abdominal pain, weakness, swelling, or infection.

Summary

Hernias are a common condition that affects people of all ages. If left untreated, they can cause severe pain and serious complications.

Surgery is usually recommended to treat hernias.

Hernia surgery is very safe and effective. Risks and complications are very rare. Knowing about them will help you detect and treat them early.