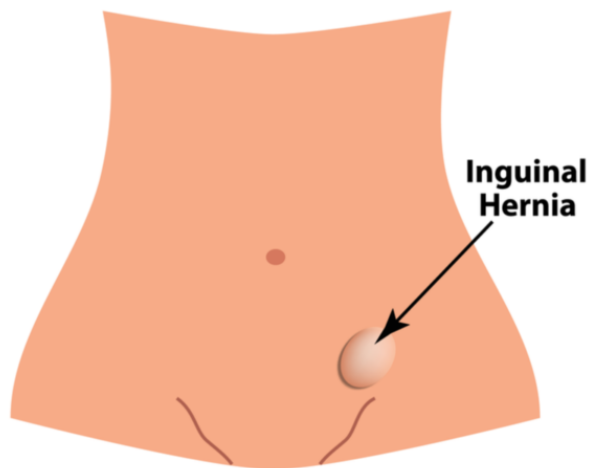


Inguinal Hernia Repair Surgery Patient Information

What is an Inguinal Hernia?

An inguinal hernia is an abnormal protrusion through a weakness in the abdominal wall into the groin. The protrusion contains a cavity (the hernial sac) which can fill with abdominal contents. Typically, hernias are more obvious when standing or straining (such as coughing, heavy lifting) forcing fatty tissue or bowel into the sac.



How Do I Know If I Have an Inguinal Hernia?

Most hernias are recognizable as a bulge under the skin in the groin. You may feel pain or discomfort at the hernia with certain activities, such as moving heavy objects, coughing, straining during urination or with bowel movements, and with prolonged standing or sitting. The pain may be sharp or dull and may get worse toward the end of the day. Often, a hernial bulge will disappear when you lie down on your back.

Often, hernias cause no or minimal symptoms aside from a bulge.

Most hernias may be detected by your doctor on a routine physical examination.

It may be normal for a hernia bulge to come and go. If the bulging is no longer reducible and is stuck out (incarcerated) or there is severe constant pain, with redness and tenderness at the hernia (strangulated), then these are critical signs. This may also be associated with vomiting if bowel is stuck inside the hernia. These symptoms may be cause for concern and you must proceed to an emergency room for urgent evaluation.

What if I have pain in the groin, but no obvious bulge?

- sometimes people have pain in the groin but no lump. This condition would usually NOT benefit from a hernia repair.
- ultrasound scans frequently diagnose hernias that cannot be seen or felt. Surgery is usually NOT ADVISED if an obvious bulge cannot be seen or felt by the patient and cannot be identified by the surgeon on examination. In this situation, surgery may not improve your condition, as the pain may be due to another cause. Sometimes the pain is worse after surgery.

What Causes an Inguinal Hernia?

The wall of the abdomen has natural areas of potential weakness. Hernias can develop in these areas due to straining, injury, a prior incision, or a weakness present from birth. Anyone can develop a hernia at any age, although inguinal hernias are more common in men than women.

Most hernias in children are congenital.

Heavy lifting, persistent cough, straining with bowel movements or urination, can cause the abdominal wall to weaken, tear, or separate resulting in a bulge of abdominal contents through the weakness.

Prolonged strenuous activity may accelerate the appearance of a hernia. On occasion a hernial bulge appears suddenly due to heavy lifting or a forceful cough or sneeze.

Do All Inguinal Hernias Need To Be Repaired?

Not all hernias need to be repaired. If a hernia is not causing symptoms or enlarging, it may be safe to continue to observe it. Hernias that are not causing symptoms are unlikely to develop serious complications such as strangulation.

A hernia does not resolve on its own. There are no exercises or physical therapy regimens that can cure a hernia. Surgery is the only way to permanently fix a hernia. Decreasing strenuous activity may help reduce symptoms or slow down enlargement.

Inguinal hernias are generally repaired if they are causing symptoms which affect daily activities, are enlarging or if the surgeon feels the hernia is at high risk of STRANGULATION.

Most hernias will eventually cause symptoms or enlarge, but this can take years.

If a patient is frail or has serious medical conditions, the surgeon may decide that elective surgery carries a high risk and may prescribe a TRUSS. A truss is an external belt which supports the hernia, thereby allowing the patient to continue with daily activities.



INTENDED BENEFITS

The goal of surgery is to reduce discomfort and prevent the hernia from bulging. It should also prevent the hernia from enlarging over time.

Hernias very rarely “strangulate” (get stuck). This occurs 0.5% per year in patients who have a hernia. In this situation, an emergency operation is required. Elective hernia repair prevents this potential complication.

What Are The Different Types of Inguinal Hernia Repair Surgeries?

Inguinal hernias may be repaired using either open or minimally invasive approaches. The chart below provides a comparison:

Open Approach	Minimally Invasive Approach
<ul style="list-style-type: none">▪ Single larger incision in the groin directly over the bulge▪ Usually requires mesh▪ Done as outpatient (day surgery)▪ Slightly more post operative pain and longer return to work▪ Abdominal cavity not entered resulting in less risk of injury to intestines or major blood vessels.▪ Often used for SINGLE SIDED inguinal hernias▪ General or spinal anesthetic can be used	<ul style="list-style-type: none">▪ 3 or more small incisions in the abdomen▪ Always requires mesh▪ Done as outpatient (day surgery)▪ Less post operative pain, shorter return to work.▪ Need to enter the abdominal cavity (potential for damage to intestines or major blood vessels)▪ Often used for BILATERAL or RECURRENT inguinal hernias▪ General anesthesia mandatory▪ Possibility of conversion to OPEN approach
	

Are You A Candidate For Minimally Invasive Inguinal Hernia Repair?

After a thorough examination your surgeon can determine which surgical approach is the best for you. The minimally invasive approach may not be best for some patients, such as those with obesity, large scrotal hernias, previous major abdominal surgery or those with certain underlying medical conditions.

In some patients, the laparoscopic approach cannot be completed. Factors that may increase the possibility of choosing or converting to the “open” approach may include obesity, intra-abdominal scar tissue due to previous surgery or infections, inability to visualize critical organs, bleeding, or other problems during the operation. The decision to convert to the open approach is made by your surgeon either before or during the actual operation and depends on the surgeon’s judgement.

What Preparation Is Required?

The surgeon who will do your hernia repair will inform you about the risks and benefits of the operation. You will sign a consent form confirming you understand and agree to the planned operation.

Your surgeon’s office will advise you about what to do and avoid before your operation. The exact instructions depend on your surgeon, but here are some common things to do:

- Take a shower the night before or the morning of your operation.
- Please DO NOT SHAVE your abdomen or groin areas. This can increase the risk of infection. If necessary, this will be done by the surgeon in the operating room once you are under anesthetic.
- Stop eating and drinking at the time your doctor tells you before the operation. Usually, no food or drink after MIDNIGHT
- The morning of your operation, you may take certain medications your doctor has allowed. Take them with ONLY A SIP OF WATER.
- You may be asked to stop taking certain medications before your operation. These include BLOOD THINNERS and oral diabetes medications
- Smoking will increase the risk of the hernia recurrence (failure of the hernia repair), and the risk for infection. In some cases, your surgeon may require that you QUIT SMOKING at least 4-6 weeks prior to your operation in order to improve your outcomes.
- You will need someone to drive you home after surgery
- If you have SLEEP APNEA, bring your CPAP machine with you to hospital

What Should I Expect After Surgery?

Most hernia operations are performed on an outpatient basis, and therefore you will probably go home on the same day of the operation. Rarely, individuals with certain medical conditions will be observed in hospital overnight.

After completion of the operation, you will be transferred to the recovery room where you will be monitored until you are fully awake, your pain is well controlled, and you can walk unassisted.

Pain after Surgery

Local anaesthetic is usually injected into the wound (while the patient is still under anesthesia) to minimise pain immediately after surgery and this should last for four to six hours.

It is normal to have some pain after your operation, particularly in the first 48 hours.

To reduce the need for narcotics for pain management, it is recommended that you take Tylenol (Acetaminophen) and Advil (Ibuprofen) regularly for the first 48 hours, whether you are having pain or not. Most patients will not require anything stronger. A prescription is provided for a mild narcotic (Tramacets). Only fill this prescription if the Acetaminophen and Ibuprofen do not control your pain in the first 6 hours. Narcotic medications are often constipating, so a stool softener is also prescribed (Colace).

Pain should gradually decrease over 2 to 4 weeks post-surgery.

Diet

Resume normal diet as soon you feel like drinking and eating. Avoid alcohol while taking narcotic medications.

Activity

You are encouraged to resume light activities and walking immediately after surgery. Avoid heavy lifting (over 10 lbs) for 4 – 6 weeks,

Most people can return to office work within 2 weeks after surgery. Full activities can be resumed in 4 – 6 weeks. Comfort should be your guide to most activities.

Driving

Most people can drive after about 1 week post-surgery. You must not be taking any narcotic medications and must be able to brake comfortably if you need to make a sudden stop.

Wound Care

It is safe to shower 48 hours after surgery. Pat the wound dry gently. Do not rub or apply soap to the area. Tub baths are safe after 2 – 3 weeks.

If Steri-Strips are used, these can be removed after 7 days (they peel off like a Band-Aid). The suture under the skin dissolves by itself.

Some patients have skin staples which need to be removed. An appointment for this is made with the Ambulatory Nursing Clinic at the hospital prior to discharge. Numbness beneath the scar is common – this may be temporary or permanent.

Mild ooze of blood from the incision is not unusual. Apply gentle pressure to the area and change a dry dressing as needed.

Bruising around the wound and tracking down into the scrotum is sometimes seen – this looks dramatic but is harmless and will settle spontaneously. Wearing tight-fitting underwear and applying an ice pack to the area for the first 24 – 48 hours may help reduce the swelling and bruising.

If the wound becomes red, hot or starts to drain pus or blood, contact your surgeon's office. If not available, go to Credit Valley ER in case you have a wound infection and need antibiotics.

Follow Up Post Surgery

An appointment with your surgeon will be scheduled at the Ambulatory Care Clinic at Credit Valley Hospital. Hospital staff will contact you for an appointment time and date within a few days after surgery. If you are not called within a week after surgery, please contact our office.

What Complications Can Occur?

Any operation has potential risks. Hernia repair is very safe, but complications can rarely occur:

- Scarring
 - ALL surgical incisions leave a scar
 - Scarring is part of the normal healing process and usually fades in time
 - Every person heals differently
 - Some scars are more prominent and may even leave a KELOID (more likely in individuals with brown or black skin)
- Bleeding
 - bruising / wound hematoma often occurs at the groin, base of penis, scrotum or labia and resolves over a few weeks
- Infection
 - Treated with antibiotics and possible prolonged wound care
 - Infection increases the risk of hernia recurrence
 - Mesh infection is very rare
- Recurrence (the hernia returns in the same location)
 - Typically, 1-3% chance when procedure done by experienced surgeon
 - Increased risk in obesity, smokers or previously repaired hernias
 - Weight loss and smoking cessation often advised before surgery
- Wound seroma (common if hernia is large)

- Accumulation of a pocket fluid at hernia site
- Feels like a persistent lump, similar to the hernia
- Resolves spontaneously in most cases
- Urinary retention
 - Catheter insertion is sometimes necessary
- Organ injury
 - Testicular vessel damage can lead to loss of testicle
 - Vas deferens
 - Major abdominal vessels
 - Intestines
 - Urinary bladder
- Nerve damage
 - Numbness below the incision is common
 - Sensation can gradually return, although numbness can be permanent
 - This does not impact sexual function
- Chronic pain (pain that does not go away)
 - Due to irritation of sensory nerve by scar tissue
 - 1-2% risk
 - More common in young males with a history of severe pain before surgery
- Cardiorespiratory complications
 - Heart attack, stroke, Deep Vein Thrombosis / pulmonary embolus
 - Pneumonia
 - More common in the elderly and in patients with previous health issues

ANESTHESIA

The specific risks of anaesthesia will be discussed with you by your anaesthesiologist before the surgery. The anesthesiologist will suggest the best type of anesthetic to keep you safe and comfortable during surgery. They will be with you during the entire procedure monitoring the level of sedation / unconsciousness, your vital signs, breathing, temperature and oxygen levels. The anesthetic is stopped at the end of the surgical procedure and the patient is then transferred to the recovery room.

Common anesthetic side effects include:

- Nausea or vomiting
- Dizziness
- Sore throat

When To Call Your Doctor's Office (or go to the emergency room)

- Fever over 38.3 degrees C (101 F)
- Chills
- Severe Bleeding or other drainage from your incision(s)
- Foul smelling drainage (pus) from any incision
- Redness surrounding any of your incisions that is worsening or getting bigger
- Progressive swelling of the abdomen or groin
- Nausea, vomiting, and/or inability to eat or drink liquids
- Inability to urinate
- Pain that is not relieved by your pain medications
- Cough or shortness of breath

This document is not intended to take the place of any discussion with your surgeon about your need for inguinal hernia surgery. We encourage you to ask questions about any details that need clarification.