**INGUINAL HERNIA**

An inguinal hernia is the bulging of a portion of an organ or tissue through an abnormal opening in the abdominal wall. The hernia appears as a lump, which may come and go, in the child’s groin. It appears or appears more noticeable when the child is crying or straining. Sometimes the lump extends into the scrotum in a boy or into the labium in a girl.

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Inguinal hernias are common and can occur at any age in children, however one third of hernias appear in the first 6 months of life. In premature infants the chance of having a hernia is increased. Boys are 4 times more likely than girls to have an inguinal hernia. The right side is more commonly affected in both sexes. In some cases, other family members may have had a hernia at birth or in infancy.

Inguinal hernias in children are not caused by muscle weakness. They rarely go away on their own. The younger the child, the more likely the hernia is to become stuck or “irreducible”, (it becomes hard and cannot be pushed back in). Very young children need an operation soon after a hernia is identified because if an organ or tissue gets caught in the hernia, it can be seriously damaged.

The operation

The best management of inguinal hernia is surgical repair. Your child comes to hospital on the day of the operation and usually goes home the same day. Very young or premature babies may stay one night after the operation. During the operation, a small incision is made in the groin; the doctors return all bulging tissue back into the abdomen, and close the canal opening. All the stitches are under the skin and dissolve by themselves. There will be a scar in the groin skin crease. As the child grows, the scar will fade but never completely disappear.

The operation can also be done with the key hole (laparoscopic) technique. Please discuss this with your surgeon.

What about activity after the operation?

Your child will naturally physically limit themselves. Most children return to normal activities without restriction within a few days. Your surgeon will advise you about any limitations on general living activity.

Is there pain after the operation? Y

our child may have pain. Ask your doctor for advice on medication and dosage for use at home. Pain is not the only cause of distress after an operation. Fear, anxiety and hunger can all have an effect on your child. Comfort your child.

Will my child have to come back to hospital?

Your child will have to see the doctor for a check-up.

If your child develops painful swelling or fever, contact your surgeon or local doctor immediately.

Remember:

Inguinal hernias need an operation. The younger the child, the sooner it is needed.

If your child develops a painful groin or swelling, see a doctor straight away.

After the operation, your child can play normally.

# PAEDIATRIC INGUINAL HERNIA

An inguinal hernia is the protrusion of some of the contents of the abdomen into the groin area. They occur in 2% of all children but are more common in boys as there is a passage created by the descent of the testis from the abdomen into the scrotum during the fetal period. If this passage remains open after birth, some fat or a loop of bowel can pass from the abdomen into the groin and even into scrotum. In girls the hernia may contain one of the ovaries.

##### **HOW IS AN INGUINAL HERNIA TREATED?**

Childhood inguinal hernias are treated with surgery. The aim of the operation is the division of the communication between the abdomen and the scrotum. Unlike adults, mesh is not required. The operation is performed under general anaesthesia. Your child will usually not have to stay overnight in hospital.  
  
Hernias do not go away on their own and if they are not fixed, are at risk of getting stuck. This can be painful for the child and can damage both the testis and content of the hernia, including the intestine. Risk is especially high in infants under a year of age and hence inguinal hernias in very young children should be repaired as soon as they are diagnosed.

##### **PREOPERATIVE PREPARATION**

Your child cannot eat for 6 hours before the procedure. In breast fed babies this time may be reduced by the anaesthetist. Your child can drink water for up to 2 hours before the operation. The Day Surgery Unit will instruct you the day before surgery to confirm fasting times. It is useful to bring your child’s favourite toy along on the day.

##### **ANAESTHESIA**

The anaesthetist will meet you and your child prior to the procedure. They will discuss the anaesthetic with you and take you through to the operating theatre. Your child will be anaesthetised using a face mask and then you will be taken to a waiting area. Once your child is asleep a drip is inserted often in the hand or arm, but occasionally it may need to be sited in the leg.

##### **PROCEDURE**

The operation is done through an incision in the groin. The communication between the abdomen and scrotum is found and in boys it is carefully peeled off the sperm tube and the blood vessels to the testis. The communication is then divided and closed after pushing any contents back into the tummy cavity. Local anaesthetic is infiltrated to numb the area. The wound is closed with absorbable sutures which are under the skin. Tissue glue is applied as a dressing. It is lilac in colour and takes 2 weeks to fall away. The whole operation takes around 30 minutes.

##### **INITIAL RECOVERY**

On completion of the operation your child will be taken to the recovery area. Children often initially appear distressed and a little confused upon waking up but will quickly settle down once you are with them and if offered a drink or something to eat. Full recovery usually takes about 2-3 hours after which you can go home.

##### **POST-OPERATIVE COURSE**

Children’s paracetamol should be given for pain relief for 24 hours. After that use paracetamol only if needed. Some children need additional medication such as ibuprofen or celecoxib. Opiate (morphine-type) medications are not usually required. Paracetamol and ibuprofen can be given at the same time and work well together. Follow the dosages recommended on the packaging or by the anaesthetist. Never give more than has been prescribed.  
  
It is quite normal for the scrotum (boys) or labia (girls) on the side of the hernia to look swollen and there may be some bruising. This usually resolves in week or so.  
  
In general, your child may eat a normal diet after surgery. Vomiting is common on the day of surgery. It is temporary, and usually due to the anaesthetic and pain-relief medications that are used. If vomiting occurs, start with clear liquids and add solids slowly for the first day.

##### **RETURN TO ACTIVITY**

* **Activity**:  Your child should avoid strenuous activity first 1-2 days. Sport and swimming are best avoided for 3 weeks after surgery.
* **School**: Your children may return to day care or school when comfortable.
* **Bathing/showering:**As the wound is waterproof, bathing and showering is safe after the operation.
* **Wound care:**  No specific wound care is required. The stitches are absorbable and do not require removal. No dressing changes, creams or ointments are required.
* **Stool softeners and laxatives:** May be needed to help regular stooling after surgery, especially if opiates are needed for pain.

###### **Call the doctor’s office if:**

* You see any signs of infection: redness along the incision site, increased swelling, discharge
* Your child’s pain gets worse or is not relieved by pain killers
* There is bleeding from the incision
* Your child has an abnormal temperature
* Vomiting continues on the day after surgery
* If you have any other concerns

##### **FOLLOW-UP**

I will review your child 4-6 weeks after the surgery to ensure healing of the wound. For patients from rural areas this may be deferred to your local General Practitioner or Paediatrician. Please ring soon after the operation to arrange a convenient time.

##### **COMPLICATIONS**

This is a common operation with a low complication rate. The vast majority of children who have this operation recover well and have no serious complications of surgery. However, complications can occur. Some of the recognised ones include:  
  
**Recurrence**  
The chance of recurrence is <1%. The recurrent hernia will show up as a lump in the groin. If the hernia recurs further surgery will be required to correct it.  
  
**Infection & Bleeding**  
There is a 1-2% risk of bleeding or wound infection after surgery. The wound will appear red, be tender to touch and may discharge pus or blood. If this occurs, a course of antibiotics may be required, and you should contact me or present to your General Practitioner or Local Hospital as soon as possible.  
  
**Damage to Testicular Vessels**  
There is a <1% chance of damage to the testicular vessels. This occurs more commonly when repairing recurrent hernias and may result in loss of function and/or shrinkage or disappearance of the testis over a few weeks.  
  
**Damage to the Vas Deferens**  
There is a <1% chance of dividing or damaging the vas deferens. This tube takes sperm from the testis to the penis during emission and ejaculation. If it is damaged, the testis can be rendered non-functional as a reproductive organ.  
  
**Hernia on the Opposite Side**  
There is a 5-20% chance of the hernia occurring on the opposite side. It is not possible to predict this with any reliability, it is unrelated to the initial hernia or operation, and if it occurs will need a further operation.  
  
This is not a reason to do a preventative exploration or repair when fixing the first hernia as it risks all of the above complications for a problem that may not exist.

##### **MORE INFORMATION**

If you have any questions, please do not hesitate to contact us.  
  
Ph: [02 8307 0977](tel:02%2083070977)  
Fax: 02 8088 7420  
Email: [info@drgideonsandler.com](mailto:info@drgideonsandler.com)

Please refer to the following resources for more information:

1. [Inguinal Hernia](https://www.schn.health.nsw.gov.au/fact-sheets/hernia-inguinal)  
   The Sydney Children's Hospitals Network
2. [Inguinal Hernia](https://www.rch.org.au/kidsinfo/fact_sheets/Inguinal_hernia/)  
   The Royal Children's Hospital Melbourne
3. [Hydrocele and Inguinal (Groin) Hernia](https://www.texaschildrens.org/health/hydrocele-and-inguinal-groin-hernia)  
   Texas Children's Hospital
4. [Pediatric Hernia Inguinal and Femoral Repair](https://www.facs.org/-/media/files/education/patient-ed/ped_inguinal.ashx?la=en) [PDF]  
   American College of Surgeons
5. [Inguinal Hernia](https://www.pedsurglibrary.com/apsa/ub?cmd=repview&type=682-44&name=2_1884007_PDF)[PDF]  
   American Pediatric Surgical Association

This page is intended to provide you with information and does not contain all known facts about inguinal hernias. Treatment may have uncommon risks not discussed here. Please do not hesitate to ask any questions you may have.