

Inguinal hernia repair in children 兒童的腹股溝疝修復

What is an inguinal hernia?

An inguinal hernia is a protrusion of abdominal contents into the inguinal canal through the defect at the deep inguinal ring. In children, most of these are congenital in origin. Inguinal hernias are more common in boys. About 10 – 20% of children with a unilateral inguinal hernia may later develop another one on the opposite side.

Surgical repair is always required as the condition will not heal by itself. Moreover, there is always a risk of sudden entrapment of intra-abdominal contents, a surgical emergency that may lead to ischaemia and even necrosis of bowels, testes in boys and ovaries in girls.

Surgical repair of an inguinal hernia

Inguinal hernia repair is one of the most commonly performed operations in children. The principle of repair is to close the congenital defect at the deep inguinal ring region. The operation can be performed either by the traditional open inguinal hernia repair or by the laparoscopic repair.

1/ Open inguinal herniotomy

This is the traditional method to treat inguinal hernias in children. A small incision is made over the groin region. The hernial sac is identified and separated from the adjacent structures like the vas deferens and testicular vessels. The defect is then repaired by ligating the hernial sac at the deep inguinal ring region. The wound is closed by absorbable sutures.

Optional procedure

In selected cases, the surgeon may choose to examine the opposite side by inserting a laparoscope through the hernial sac into the abdomen. A similar operation will be performed on the opposite side if a defect is found.

2/ Laparoscopic inguinal hernia repair

A small incision is made at the umbilical region and a laparoscopic port is inserted. A laparoscope is then inserted into the abdomen after it is blown up by carbon dioxide. Laparoscopic instruments are then inserted via 2 small wounds at the lower abdomen to perform the repair. If a similar defect is present on the opposite side, an additional wound be made and this defect will be repaired, in order to prevent hernia developing in the opposite side. Conversion from the laparoscopic to the open technique may be required in a small proportion of patients.

Open repair or laparoscopic repair?

Not all patients are suitable to go for laparoscopic repair. Parents should discuss with their surgeons for the most appropriate repair for their child. When applicable, both methods are effective to repair inguinal hernia in children. At this point of time, the

laparoscopic technique has a slightly higher recurrence rate than the open repair. The duration of operation and recovery is similar for open and laparoscopic repair; most children can be discharged in the same day or the day after operation.

Preoperative preparation

In children, the operation has to be done under general anaesthesia. The child should not eat or drink beforehand for the time specified by the anaesthetists and surgeons. It is important to follow these instructions. Otherwise the operation may need to be postponed or even cancelled. The surgeon will explain the operation including the risks in detail and a consent form will be signed. Parents have to make sure that they fully understand the explanation before the consent form is signed. An anaesthetist will also see the child and explain the anaesthetic risk in detail. If the child has any past medical problems or allergies, please inform the doctors.

Postoperative care

There shall be one to a few dressings over the abdomen. There is no need for removal of suture from any of the wound. Doctors or nurses will give other advices for wound care.

The child may resume a normal diet a few hours after the operation. A painkiller such as paracetamol may be used as required. Most children can be discharged on the same day or the day after operation. They can be back to daily activities but to avoid vigorous exercise in the first few weeks . Please follow instructions on follow-up visits.

Complications

Overall, inguinal hernia repair in children is a safe operation with a low complication rate. Nevertheless, a number of potential complications may occur. Parents shall discuss with their surgeons about the incidence.

General -

1. Bleeding
2. Wound haematoma
3. Wound infection, abscess, dehiscence
4. Hypertrophic scar
5. Urinary retention

Specific -

1. Recurrence
2. Scrotal or groin edema
3. Reactive hydrocele
4. Injury to vas deferens and / or testicular vessels resulting in testicular damage
5. Injury to the testis or epididymis
6. Testicular atrophy
7. Iatrogenic trapped testis
8. Injury to nerves resulting in numbness of the perineum and upper thigh

Rare but significant (if any)

1. Injury to major vessels, small bowel, large bowel, omentum, ovary, fallopian tube, urinary bladder
2. Torrential bleeding

Follow up

Depends on clinical condition, patient can usually be discharged from hospital on the same day to a few days after operation and be followed up in out-patient clinic.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. Please consult your doctor for details