



## Procedure Information Sheet

### Introduction

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.

### Indication

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.

### The Operation / Procedure

#### 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 stitches that will dissolve.

#### 2. Laparoscopic Inguinal Hernia Repair

There are several laparoscopic techniques to repair inguinal hernias in children. Parents should discuss with the surgeons about the technique they use.

In general, 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.

#### Open repair or laparoscopic repair?

Both methods are minimally invasive and effective methods to repair inguinal hernia in children. At this point of time, the laparoscopic technique has a slightly higher recurrence rate than the open repair. Conversion from the laparoscopic to the open technique may be required in a small proportion of patients. In addition, not all patients are suitable to have the laparoscopic repair. Parents should discuss with their surgeons for the most appropriate repair for their child.

### Before the Operation / Procedure

1. 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.
2. 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.
3. An anaesthetist will also see the child and explain the anaesthetic risk in detail. If the child has any medical problems such as allergies, please inform the doctors.

<p><b>Patient's Label</b>          Patient Name: _____          Hospital No: _____          Episode No: _____</p>
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### After the Operation / Procedure

1. There shall be one to a few dressings over the abdomen. Consult the doctors or nurses for the care.
2. The child may resume a normal diet a few hours after the operation.
3. A painkiller such as Panadol may be used as required.
4. Normal ambulation is encouraged though vigorous exercises shall be avoided during the early postoperative period.
5. The child shall be discharged from the hospital as appropriate and shall come back for follow-ups. Please follow the instructions.

### Risk and Complications

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

1. General
  - 1.1 Bleeding
  - 1.2 Wound haematoma
  - 1.3 Wound infection, abscess, dehiscence
  - 1.4 Hypertrophic scar
2. Specific
  - 2.1 Recurrence
  - 2.2 Scrotal or groin edema
  - 2.3 Reactive hydrocele
  - 2.4 Injury to vas deferens and / or testicular vessels resulting in testicular damage
  - 2.5 Iatrogenic trapped testis
  - 2.6 Injury to nerves resulting in numbness of the perineum and upper thigh
3. Rare but significant (if any)
  - 3.1 Injury to major vessels, small bowel, large bowel, omentum, ovary, fallopian tube, urinary bladder
  - 3.2 Torrential bleeding

### Disclaimer

This leaflet only provides general information pertaining to this operation / procedure. While common risks and complications are described, the list is not exhaustive, and the degree of risk could also vary between patients. Please contact your doctor for detailed information and specific enquiry.

### Reference

Smart patient website by Hospital Authority: Inguinal Hernia Repair in Children (8/2016)

Patient's Label  
 Patient Name: \_\_\_\_\_  
 Hospital No: \_\_\_\_\_  
 Episode No: \_\_\_\_\_

Signature of Parents / Guardian: \_\_\_\_\_ Date: \_\_\_\_\_