

Patient Care > Inguinal Hernia

Introduction

All babies at one time during development had inguinal hernias. Although there are all kinds of hernias, in this case we mean narrow channels which originate from the lining of the abdomen or peritoneum, traverse several muscle layers in the groin, and end in the scrotum in boys or in the labial fold in girls. Inguinal hernias, unlike umbilical (belly button) hernias, do not spontaneously resolve and require surgery.

Incidence and Embryology

A hernia occurs during fetal development. In boys, this tract follows the descent of the testes while in girls, it follows the round ligament (uterine attachment to the labia). Normally, this sac scars down into a cord and has no clinical consequences. However, in approximately 5% of boys and 1% of girls, the sac remains open. Because this tract communicates with the abdominal cavity, intestine, bladder, and even the ovary in girls may protrude into this narrow tract. Because the passage is through several muscle layers, the intestine or ovary may become caught (incarcerated hernia) and may even die (strangulated hernia) if not reduced in time.

Symptoms and Signs

The most common symptom is pain in the groin and the most common sign is a mass along the tract in the groin.

It is not uncommon to see fluid in the scrotum of the male newborn particularly if premature. As the normal tract scars, fluid may be trapped in the scrotum. This is called a hydrocele, and while not dangerous may sometimes be alarmingly large. However, an isolated hydrocele will not cause any harm and usually this fluid will resolve by 6 months of age. In contrast with a hernia, a hydrocele does not fluctuate in size, gradually shrinking if it changes at all.

In males, hernias may appear as a smooth mass anywhere along the groin crease and may extend into the scrotum. Fluid found in the scrotum which fluctuates in size implies a hernia since the fluid must originate in the abdominal cavity. A mass found in this tract is almost always a length of intestine, and may make a squishing sound when reduced back into the abdomen.

In girls, in addition to the intestine, an ovary may be found 10% of the time in the tract. Occasionally, the ovary is not reducible because it is fused to the wall of the hernia. Still, as long as the patient is not experiencing pain, it is safe to leave the ovary in place.

Usually, gentle pressure can reduce the intestine. However, it is not unusual for it to come right back out (particularly in a crying, straining child). As long as the intestine always drops back into the abdomen easily, there is little immediate danger.

On the other hand, if the intestine or ovary become caught in the hernia, their blood supply may be compromised. If your child has a hernia that is "stuck," seek medical attention right away. If a child has a symptomatic (pain or vomiting) hernia mass, the doctor will try to reduce it. Most hernias can be reduced without going to the operating room emergently. A quick reduction relieves pain, ensures good blood flow to the intestine or ovary, and allows for an elective operation under optimal conditions.

Occasionally however, the mass may not be reducible or the child may show signs of a strangulated hernia (fever, vomiting, severe abdominal pain, sepsis). In this instance an emergency operation is necessary to relieve the obstruction of blood flow to the intestine or ovary.

Treatment

In an elective situation, a schedule time will be assigned and instructions given for the general anesthesia. . Except for small or premature babies, hernia repair is an outpatient procedure and does not require an overnight stay.

Hernias may be repaired by small incisions in the groin or by laparoscopy. The choice of which technique will be used in your child will be discussed with you by the surgeon.

The basic principle of any hernia operation is to close the opening of the abdomen. In open procedures, a portion of the sac is removed. In laparoscopic repairs, the opening in the abdomen is sutured closed. Mesh is virtually never used; the mesh hernia repairs you may have heard of are used for an anatomically different kind of groin hernia in adults.

In some babies and children, there are obvious hernias in each groin. But often, there is a clear hernia only on one side, raising the question of what to do with the "normal" side. In newborns and infants (particularly premature babies), bilateral hernia repairs are usually recommended even if no hernia was seen on one side since the presence of one hernia is strong evidence for another. Because the main risk of a hernia operation is from anesthesia, it is safer to explore the opposite side (adding 10 minutes to the procedure) rather than having another anesthesia in the future. In children, unless there is a strong history or physical findings of a hernia on the opposite side, only the affected side is explored. In some children, it may be prudent to perform laparoscopic exploration, where a tiny camera is inserted through a 1-3mm hole (usually at the belly button) and the groins examined directly. Your surgeon will discuss these options in more detail.

Recovery is generally very fast. The incisions (which are usually sealed with glue) can be washed (but not immersed) in 48 hours. Pain is usually mild and is well controlled with Tylenol (never use aspirin products in babies). It is especially helpful to give some Tylenol at bedtime so everyone will get some sleep! Older children may need stronger medicine for 1-3 days (the surgeon will give you a prescription). Children may play normally, but contact sports and weight lifting should be avoided for 30 days.

There may be a small (1/8 inch) rim of redness about the incision; this is normal and will quickly resolve. In contrast, any spreading redness or pus in any wound must be reported to our office ([Contact Us](#)). It is not unusual to have residual fluid remaining in the scrotum or see a bluish discoloration of the scrotum. The fluid may take months to spontaneously resolve. If the residual fluid fluctuates in size (gets bigger and smaller), report this to the office.

Complications

Any patient undergoing general anesthesia and surgery incurs the risk of reaction to the anesthetic or medications, bleeding and infection. This risk is extremely low. Injury to the intestine, vas deferens (the tube eventually transporting the sperm), or ovary is rare. Recurrence of the hernia is approximately 2-3% and higher in premature babies.

***Disclaimer:** Your child's condition is unique. The information contained on this web site is not intended to substitute for advice from a doctor or nurse. If you are unsure about any aspect of your patient's care, please contact us at 303-839-6001, or talk to your pediatrician.*