

Pediatric Urology Associates, Ltd.

& Pediatric Enuresis Center of Arizona

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HYDROCELES AND HERNIAS

HYDROCELE

Hydrocele is a collection of watery fluid around the testicle. This is a common problem in newborn males (6-10%) and usually goes away within the first year of life. When the testicle drops into the scrotum before birth, a sac from the abdominal cavity travels along with the testicle. Fluid from the abdominal cavity can then flow down into the scrotum to surround the testicle. The sac usually closes off and the fluid is absorbed, but sometimes the sac persists (communicating hydrocele) or the fluid fails to be absorbed (noncommunicating hydrocele). In unusual instances the hydrocele fluid can be the result of an abdominal inflammation, or a testicular problem (injury, torsion, infection, tumor). Sometimes the hydrocele may not be in the scrotum, but higher up in spermatic cord.

A progressively enlarging or symptomatic hydrocele should be fixed. If the hydrocele is suggestive of tumor or torsion, urgent exploration is performed. A large noncommunicating hydrocele persisting after 12-18 months years of age is unlikely to go away and should also be fixed.

HERNIA

The extension of the abdominal sac that passes into the groin is called the processus vaginalis. This usually closes off by the time of birth. If it remains open, fluid can pass down into the groin and scrotum in boys to form a hydrocele. If the sac is wide enough it can allow other abdominal contents such as intestine or fat (in girls, the ovary) to travel down it. These structures can pass in and out of the hernia sac, but sometimes get stuck (incarcerated hernia).

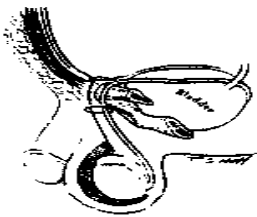
Inguinal hernias occur in both sexes, but are more common in boys, being found in 1-4%. The incidence is much greater in premature babies (30% for very low birth weights). Hernias favor the right side, but may occur on both right and left.

The usual hernia is a lump or bulge in the groin or scrotum. Usually asymptomatic, the hernia can cause pain, fussiness, or even bowel obstruction. Although the hernia contents usually pass back into the abdominal cavity intermittently (reduction of the hernia) the sac itself does not disappear - therefore a hernia should be fixed surgically. Most are repaired electively. Incarceration may cause much distress, and when this happens and the hernia cannot be reduced it should be immediately corrected surgically. If a hernia becomes strangulated, the involved intestine will die and have to be removed. This is a life-threatening situation.

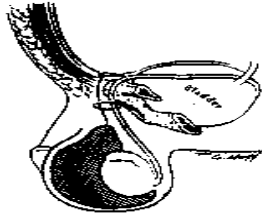
CORRECTION OF HYDROCELE/HERNIA

These problems are corrected in children via a groin incision. In children with hydroceles we ligate the patent processus vaginalis and then remove the watery fluid. Possible complications include bleeding, infection, pain, and recurrence of the hydrocele.

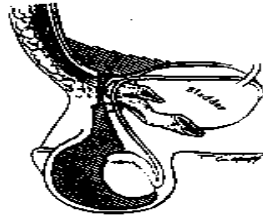
A hernia is also approached through the groin and the hernia sac is separated from spermatic cord vessels and vas deferens. The sac is then tied off where it originates from the abdominal cavity. Pediatric hernias (indirect inguinal hernias) are usually different from adult types which tend to have a muscle weakness that must be fixed. Muscle repair is rarely necessary for pediatric hernias. Hernia complications, in addition to bleeding, infection, and recurrence include hydrocele formation, injury to spermatic cord vessels and damage to the vas deferens. With any groin or scrotal operation there is always a small chance that the testicle could be damaged or lost.



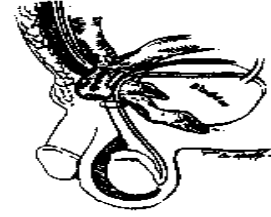
Normal Anatomy



Non-Communicating Hydrocele



Communicating Hydrocele



Hernia