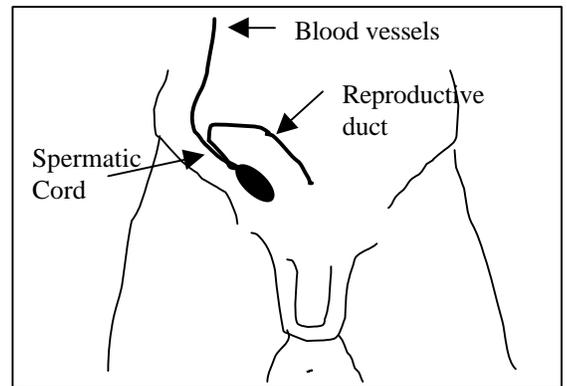
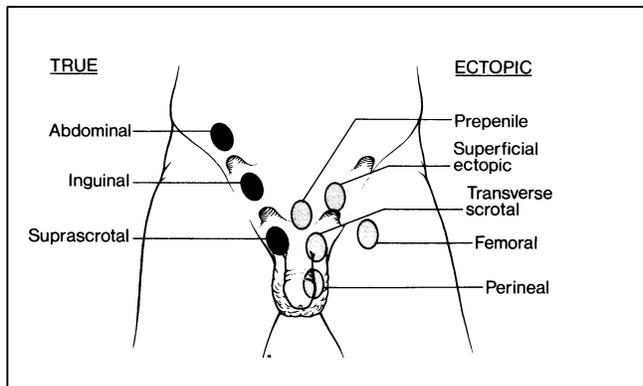


UNDESCENDED TESTICLE

Boy's testicles normally descend from within the abdomen into the scrotum before birth. Approximately 3% of boys are born with their testicles undescended (not within the scrotum). Premature infants have a higher incidence of undescended testicles. About two-thirds of children born with undescended testicles will have descent of the testicles into the scrotum by six months of age. The incidence of undescended testicles at six months of age and older is 0.8%.



REASONS FOR SURGERY

If your son's testicle has not descended by six months of age, it is extremely unlikely that it will descend spontaneously. The reasons for performing an operation include:

- **Fertility:** Scientific data has shown that men with undescended testicles have a higher rate of infertility. This is most likely secondary to a primary defect in the testicle that caused it not to descend and/or a result of the testicle not being in the scrotum. Data also has shown that testicles in a higher position (abdominal) are more likely to have cellular problems. Apparently, testicles suffer more damage the longer they remain out of the scrotum.
- **Hernia:** An undescended testicle is associated with a connection between the abdomen and scrotum called a "hernia". During repair of the testicle, the hernia sac is closed.
- **Tumor:** Undescended testicles have a higher risk of developing a testicular tumor. The risk is highest for abdominal testicles. By bringing the testicle down into the scrotum with surgery, the family, patient, and physician can periodically examine the testicle. This is very important for early detection of tumors.
- **Torsion:** Undescended testicles have a higher risk of spontaneously twisting and stopping the blood flow to the testicle.
- **Cosmetic/Psychological:** Some families feel it is important for their child to have both testicles in the scrotum for their psychological well-being.

RETRACTILE TESTICLE

A retractile testicle is one that appears to be undescended, but can be brought down with gentle manipulation into the scrotum and will stay there for a short time. This generally occurs in boys between 2 and 7 years of age who previously had normal descended testicles. The retraction (upward pull) on the testicle occurs due to overactive muscles which surround the spermatic cord. Retractable testicles do not require surgery and come down spontaneously.

SURGERY

The surgical treatment of undescended testicles, called “orchiopexy”, is done as an outpatient procedure. Your child will be allowed to leave the hospital the same day as surgery. A general anesthetic will be required and in most cases we also use a regional anesthetic.

If the testicle is undescended but palpable (the physician can feel it) in the inguinal region, surgery can be performed through small groin incisions. This is the same incision used for hernia surgery and is generally done overlying a skin crease and is minimally noticeable a few months after surgery. In most cases, it will be covered by pubic hair later in life.

The testicle is attached to the body by the “spermatic cord”. This cord contains the blood vessels and reproductive duct necessary for testicular function. If the spermatic cord is not long enough, the testicle may not reach into the scrotum. At this point, the surgeon must create enough length without injuring the spermatic cord.

If your child’s testicle is not palpable, we may perform diagnostic or therapeutic laparoscopy. A very small telescope with a fiber optic lens is placed into the abdomen through the umbilicus (belly button) to visualize the testicle and see if it can be brought down into the scrotum. Occasionally we will find out that a testicle is missing on one side.

Orchiopexy is a relatively safe procedure, but all surgery carries some risk. Possible complications include injury to the testicle, bladder, intestine or spermatic cord. If a short testicular artery does not allow the testicle to be brought down into the scrotum, we will ligate and cut the vessel. This increases the risk of testicular shrinkage (atrophy).

NONSURGICAL ALTERNATIVES

Some cases of undescended testicles can be treated with hormonal therapy. This involves the intramuscular injection of a hormone. In a few children, this hormone will stimulate descent of the testicles into the scrotum. In general, this requires five intramuscular injections to be given every five days. This has not been a popular mode of therapy in the United States because the hormones may potentially damage sperm cells and success rates are highly variable. In some boys with retractile testicles, hormone injections may be beneficial.