Kapi'olani kids

Kapi'olani Pediatric Urology

Undescended Testicle & Orchiopexy

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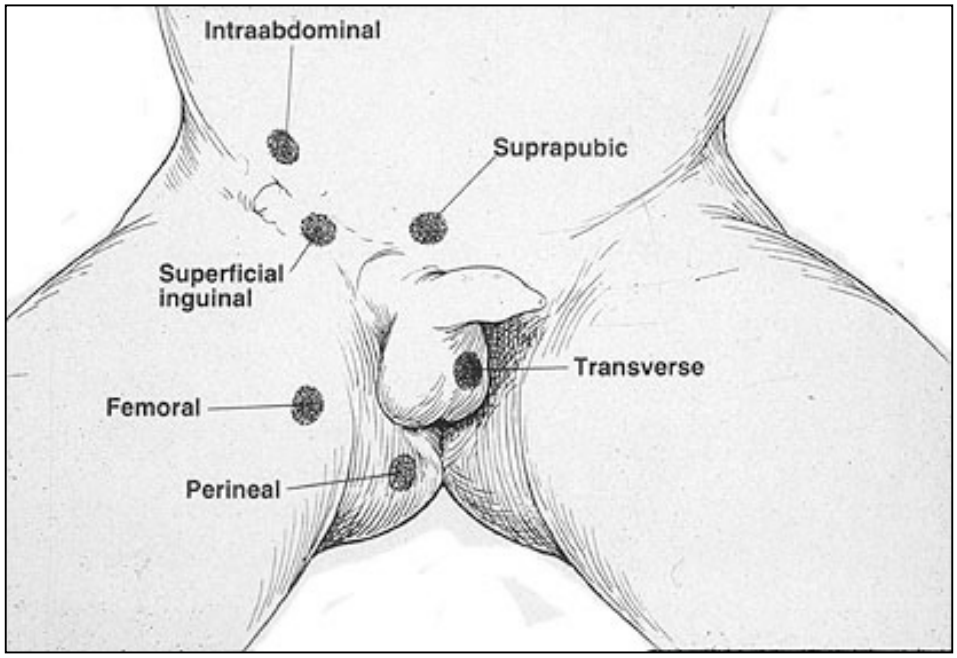
What happens when a testicle does not descend?

Undescended testis occurs in about three percent of newborn boys. One or both sides may be affected although it is usually just one. The condition is more common in premature babies. Normal descent of the testis during pregnancy may be interrupted at various levels from the abdominal cavity down to the scrotum. Most commonly, the undescended testis can be found in the groin near the pubic bone, just outside the normal path of descent. It is usually associated with a hernia sac, which is a protrusion of the abdominal lining into the groin surrounding the spermatic cord of the testicle.



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Rarely, a testis will descend after the newborn period. If not down by six months, it is unlikely to descend and will require an operation. Most of these testes are normal. However, in cases where the testis is located high in the abdomen or both testes are undescended, there is a higher likelihood that the testis may not have normal fertility.

There is some evidence that injury to testicular tissue may occur as early as six months, most likely caused by higher body temperature in the groin and abdomen. Therefore advocates suggest surgical correction at this age.

There is a very small but nonetheless higher risk of testicular cancer in undescended testes compared to normal testes. This is particularly true for high, intra-abdominal testes. The small risk of cancer does not warrant complete removal of the testis. Placement of the testis into the scrotum calls for a surgical procedure known as orchiopexy. This surgical correction will not diminish the risk of cancer, but will make early detection more likely.

How is the problem corrected?

The outpatient operation requires general anesthesia, which is administered by an anesthesiologist especially trained to care for children. A mask will be placed over your child's nose and mouth and anesthesia delivered. Once asleep, a breathing tube is inserted into or just above the windpipe. An I.V. is inserted into the back of the hand, forearm, or foot, and then the child turned on his side where the anesthesiologist will inject local anesthesia between two lower vertebrae into a space just outside the spine (caudal block). This injection will greatly enhance your son's postoperative recovery, allowing him to awaken without pain and remain pain-free for several hours.

A small incision is made just above the pubic bone on one or both sides to locate the testis. Once freed from the surrounding tissues, a counter incision is made in the scrotum and space created just beneath the skin. The testis is then directed through the floor of the scrotum and into this space and secured in place with a suture. The scrotal skin is closed with dissolvable suture and covered with a paint-on dressing (similar to a scab). The wound is closed from the inside with dissolving sutures and then covered with steri-strips and a saran-wrap-like bandage.

If the testis cannot be felt, the operation will begin by placing a very small telescope through an incision in the belly button. This technique enables the surgeon to determine the location of the testis. If the testis is very high, a staged operation may be required. The scope can also determine if the testis never developed, which is rare, and spare the child the need for an incision.

For the testis located high in the abdomen, a staged operation entails intentionally interrupting the blood supply to the testis because a short/tight blood vessel may be the cause of the problem. When this happens, the testis will derive blood supply from alternative blood vessels over several months. A second-stage operation to bring the testis into the scrotum will be done after the testis has developed enhanced collateral blood supply in about six to 12 months.

What about follow-up care?

1. Following surgery, your child will sleep most of the day and may require Ibuprofen or Tylenol for pain relief after the caudal block wears off. By the next day, he will be back to his normal self.
2. The caudal medicine may cause some temporary leg weakness for one to two hours. For that reason, we usually don't administer a caudal to children over five years old. Instead, numbing medicine is injected into the incision site which provides good temporary pain control until oral medicine can take effect.
3. The bandage should be removed after two days. Underneath, you will find steri-strips. Allow these to fall off by themselves. The scrotal bandage will fall off by itself and it is fine to get it wet.
4. It's OK to bathe or shower when the groin bandage is removed. Until that time, either sponge bathe or use cleansing wipes. The steri-strips will gradually loosen up from the ends and can be clipped or removed after several days.
5. If the operation site becomes bright red, warm to the touch, or drains pus, call the office immediately at (808) 983-6210.
6. Activity should be curtailed with no active sports or swimming for two weeks. Toddlers will usually be ready to resume normal robust behavior the next day and restricting them may be frustrating. Just keep them from jumping from heights or straddling toys.
7. An appointment should be made for the doctor to see your child four weeks after the operation. If there are concerns at any time prior, call the office.

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What are possible complications?

1. Infection
2. Bleeding
3. Atrophy or loss of the testis may occur and is due to injury to the blood supply.
4. Sterility is unlikely when only one testis is undescended and is more likely when both testes are involved.

For any questions or to make an appointment, call Kapi‘olani’s Pediatric Urology Office at (808) 983-6210.