

Testicular Torsion

Testicular torsion is the most serious cause of pain of the scrotum (the sac containing the testicles) in boys. This causes interruption of the blood supply, which can rapidly lead to permanent damage to the testicle. Immediate surgery is required. Boys who are having pain in the testicles always need prompt medical attention.

What is testicular torsion?

Testicular torsion occurs when the spermatic cord leading to the testicles becomes twisted. It causes sudden pain and swelling of the scrotum. Loss of blood supply to the affected testicle can rapidly cause damage.

Boys with pain and swelling of the scrotum need immediate medical attention. If your child has testicular torsion, he will probably need emergency surgery. In severe cases, surgery should be performed within 4 to 6 hours to prevent permanent damage to the testicle. In less severe cases, the testicle can still be saved if surgery is performed within a day or two.

What does it look like?

- Sudden pain and swelling of the scrotum. Pain may be severe. The scrotum may appear red and very tender.
- Vomiting, sweating, and other symptoms related to severe pain.
- Your son may have recently (but not necessarily) had an injury to the scrotum.
- Testicular torsion most commonly occurs during the teenage years. It can also be present at birth in newborn boys. In newborns, the scrotum appears enlarged and bruised on one side, usually not red and tender.

What causes testicular torsion?

- In some boys, the testicles are not well attached in the scrotum, allowing them to move around more than they should. This can result in twisting (torsion) of the spermatic cord.
- Torsion sometimes occurs after an injury or exercise. However, at other times there is no noticeable injury or other responsible event.

What are some possible complications of testicular torsion?

- Damage to the testicle can occur within hours. Emergency surgery can reduce this risk if it is performed within 6 hours or so.

- The testicle's ability to produce sperm may be impaired. This does not necessarily mean your son will be infertile (unable to have children). Fertility may still be normal as long as the other testicle is unharmed.
- In severe cases, the testicle may die. If this occurs, surgery may be needed to remove it.

What puts your child at risk of testicular torsion?

- Torsion is most common in boys ages 12 and older. It rarely occurs in boys under 10.
- There are no known risk factors. However, if torsion occurs in one testicle, there is a risk that it may occur in the other testicle. When your son has surgery for testicular torsion, the surgeon will place a few stitches in the second testicle to prevent it from becoming rotated.

Can testicular torsion be prevented?

There is no known prevention. Immediate surgery is usually needed to prevent permanent damage to the testicle.

How is testicular torsion diagnosed?

- Your son will be examined to see if testicular torsion is the cause of his pain and swelling. There are some other conditions that can cause similar symptoms, such as epididymitis (inflammation or infection of the epididymis, which carries and stores sperm) or inguinal hernia (part of the intestine slipping through an opening between the abdomen and groin).
- The doctor may recommend tests, such as ultrasound, to confirm the diagnosis before surgery.
- Another, less serious condition, called *torsion of the appendix testis*, can cause similar symptoms. This occurs when a small bit of tissue attached to the testicle (the "appendix testis") becomes twisted.
 - Torsion of the appendix testis also causes pain and swelling of the scrotum. The pain usually develops gradually, not suddenly.
 - It is more common in younger boys (ages 2 to 11).
 - Torsion of the appendix testis does not usually require surgery. However, it can be difficult to distinguish between torsion of the appendix testis and testicular torsion. If there is any doubt about the diagnosis, the doctor may recommend surgery.

How is testicular torsion treated?

Before surgery.

- If the pain has been present for only a few hours, the doctor may attempt to untwist the testicle by hand. If this maneuver is successful, it can provide rapid pain relief. However, your son may still need further evaluation and possible surgery.

Emergency surgery.

- For many boys with testicular torsion, emergency surgery is needed. Your son will be asleep (under general anesthesia) for the surgery.
- The surgeon will untwist the spermatic cord, returning blood flow to the testicle. He or she will then place a few stitches to make sure the testicle doesn't become rotated again. This part of the operation is called *orchiopexy*. The same will be done to the opposite testicle.
- During the operation, the surgeon will look for any signs of permanent damage to the testicle. If torsion is severe and/or has been present for a long time, the testicle may have been badly damaged or may even have died. If so, it will need to be removed. As long as the other testicle is undamaged, your son may still be fertile (able to have a child).

In newborns.

- Some boys are born with testicular torsion. This is usually obvious at birth.
- In most babies born with this condition, the torsion occurred weeks earlier. By the time the baby is born, the testicle is permanently damaged.
- Especially for the first month, your son will be at high risk for torsion of the other testicle. Your doctor will arrange a visit to a specialist (pediatric urologist) for evaluation. This expert can recommend the most appropriate treatment for your son's condition.

When should I call your office?

Boys with severe pain in the testicles always need prompt medical attention. 

- After surgery for testicular torsion, call the surgeon (or our office) if the following occur:
 - Continued pain and swelling.
 - Redness or fluid oozing from the surgical wound.