

Chronic Testicular Pain

The medical term for chronic pain in a testicle is *orchialgia*, defined as at least 3 months of chronic or intermittent pain that interferes with one's quality of life. This is a not uncommon complaint in patients presenting to urologists. It can be a frustrating problem for both patient and physician, and many patients end up seeing a number of doctors for the problem.

The testicles are the two oval-shaped organs housed within the scrotal sac that function to manufacture the male hormone *testosterone* and to produce *sperm*. The inside of the testes is very soft in consistency, but the outer wall is a thick, protective tunic. After sperm is manufactured within the testes, it travels to the *epididymis* for storage and maturation. The epididymis empties into the sperm duct known as the *vas deferens*. The testes are not free-floating structures within the scrotum, but are suspended by a rope-like tissue known as the *spermatic cord*, which is the life supply to the testes, containing the blood and lymphatic vessels, nerves, and vas deferens.

Chronic testicular pain may be on the basis of multiple different underlying causes including the following:

1. Infection. An infection of the testes is *orchitis*; an infection of the epididymis is *epididymitis*; an infection of both the testes and epididymis is *epididymo-orchitis*; infection of the spermatic cord is *funiculitis*.
2. Tumor. A benign or malignant mass of the testes or epididymis.
3. Hernia. A prolapse of a piece of abdominal content through a weakness in the supportive tissue of the groin.
4. Torsion. A twist of the spermatic cord or one of the small appendages located on the testes or epididymis. Most of the time, this will give rise to acute pain, but if the twisting is intermittent, it can be responsible for chronic pain.
5. Hydrocele. A fluid collection in the sac around the testicle giving rise to variable swelling.
6. Spermatocele. A cystic mass resulting from a blockage of one of the sperm ducts within the epididymis.
7. Varicocele. Varicose veins of the spermatic cord.
8. Trauma. An injury to the testes or epididymis.
9. Prior Operations. Particularly groin hernia surgery, sometimes caused by nerve entrapment in scar tissue; also previous operations on the testicle including vasectomy.
10. Referred Pain. Pain perceived in the testicle, although originating elsewhere, seen on occasion when a kidney stone drops down into the ureter and causes pain in the groin and testicle. Additionally, it can result from a hernia, aneurysm, lower back disorder, or entrapped nerve.
11. Tendonitis. An inflammation of the tendons inserting into the pelvic bones.

Evaluation of the patient with chronic testicular pain includes a thorough history, a focused exam of the genitals and prostate, and a urinalysis and culture. It is often very helpful to image the testicles with a scrotal ultrasound. On occasion, it is important to image the upper urinary tracts (kidneys and ureters) when considering the possibility of referred pain.

Treatment is directed at the underlying cause. This may require a course of antibiotics if infection is a consideration. Anti-inflammatory medications are often useful. Supportive measures including wearing elastic jockey shorts and the application of heat can be helpful. On occasion, a temporary nerve block using a local anesthetic (and sometimes steroids) can distinguish between testicular pain and referred pain, as well as break the pain cycle. Testicular tumors need to be removed and torsions are surgical emergencies. Hernias, hydroceles, spermatoceles, and varicoceles can be surgically repaired if warranted.

On rare occasions, it will be necessary to perform a surgical procedure to relieve chronic testicular pain that is not on the basis of any of the situations mentioned in the previous paragraph. Under these circumstances, removal of the epididymis or testicle is the last resort, reserved for refractory and disabling pain that has not responded to conservative measures and is severely affecting one's quality of life. Often the underlying source of chronic testicular pain cannot be discerned and its management—similar to that of many chronic ailments—can be challenging, although it is important to know that chronic testicular pain usually has no serious underlying basis.