

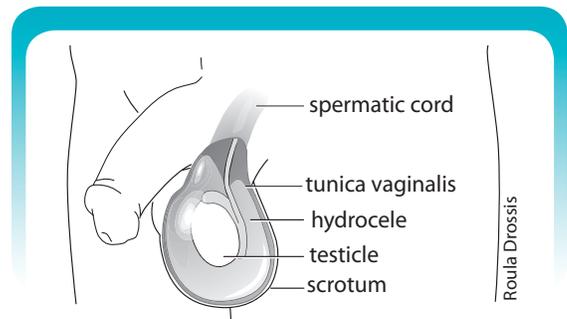
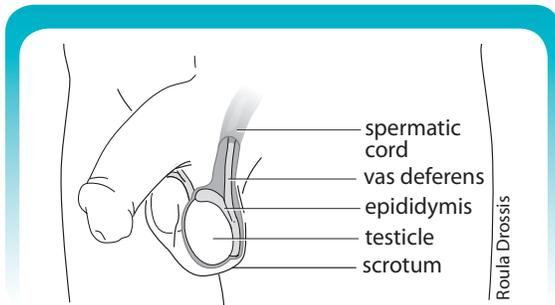


Scrotal swellings



Although scrotal swellings or lumps may cause discomfort, they rarely cause serious health problems. When necessary, they can be treated effectively.

The **scrotum** is the sac of skin containing the testicles where sperm and male hormones are produced. Sperm matures and is stored in the epididymis. At the time of ejaculation, sperm is conducted out through the **vas deferens** which runs up from each testicle to the groin along with blood vessels, nerves and muscles within the **spermatic cord**. The scrotal structures are enveloped in several layers of fibrous tissue and muscle.



Frequently, a man may not even be aware of a small hydrocele. When a hydrocele enlarges it may cause a feeling of heaviness or pressure in the scrotum. Discomfort may be increased in tight clothing and when sitting for long periods. In some cases, the amount of swelling may be enough to cause embarrassment. A hydrocele does not affect a man's sexual function or ability to father children.

The majority of lumps and swellings in the scrotum are related to non-cancerous conditions. Cancer of a testicle occurs rarely and usually in younger men. It becomes apparent as a solid lump in the testicle itself. Physical examination and, if necessary, an ultrasound can readily clarify the nature of any scrotal swelling. Most often, a scrotal swelling is due to a watery fluid collection (hydrocele or cyst) or dilated blood vessels (varicocele).

Hydrocele

A hydrocele is a collection of watery fluid around the testicle. Fluid may accumulate between tissue layers surrounding the testicle and spermatic cord as a result of infection, inflammation or injury. In many cases, no cause is apparent. A hydrocele must be distinguished from a hernia in which a weakness in the groin allows bowel to slip through causing discomfort and swelling in the groin and scrotum.

Treatment is not required for smaller hydroceles as there is no risk to the testicle or to general health. If the hydrocele is bothersome, it can be drained with a needle (**aspiration**) in order to provide temporary relief. Most often, however, the fluid will build up again over several weeks or months. This re-accumulation can sometimes be prevented by injecting a chemical irritant after aspiration (**sclerotherapy**) to cause the hydrocele space to scar up. These procedures usually are performed with local anaesthetic ("freezing"). Aspiration is most appropriate in men requiring relief but in whom surgery is risky. Bruising, bleeding and infection are some of the risks of hydrocele aspiration.

Continued on next page

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Surgical treatment (**hydrocele repair**) is appropriate for most larger and bothersome hydroceles. Under general (you are “put to sleep”) or spinal (you are “frozen” from the waist down with a needle in the back) anesthetic, an incision is made in the front of the scrotum. The hydrocele is then opened, drained and repaired in such a way that the fluid cannot re-accumulate. This procedure is usually performed as out-patient surgery with return to usual activities in a few weeks. Skin bruising and some scrotal swelling are not unusual for a few weeks after the operation. Infection and build-up of blood (**hematoma**) in the loose scrotal tissue occurs occasionally and requires prompt evaluation. Recurrence of the hydrocele may occur infrequently and require further treatment.

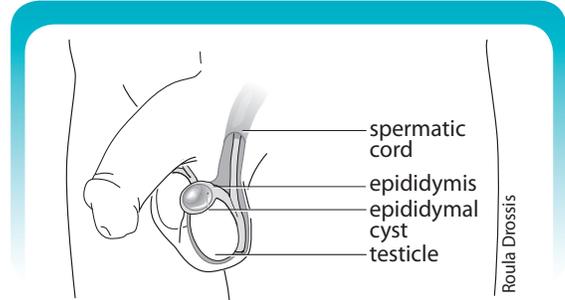
Hydrocele in boys

A hydrocele may be found in a newborn boy. Towards the end of pregnancy, each testicle descends from abdomen into the scrotum alongside a channel through the groin. This channel normally closes before or shortly after birth. When the channel stays open, fluid can run from the abdominal cavity into the scrotum. This is called a communicating hydrocele. Fluctuation in the size of the hydrocele is common due to back and forth movement of fluid from the abdomen to the scrotum. A large hydrocele may be tense and give a bluish appearance to the scrotum but generally should not cause pain.

Often, the communicating channel will close without treatment before the age of one and the hydrocele may disappear. If a hydrocele causes symptoms or persists beyond one year of age, repair may be recommended. Under general anesthesia, an incision in the groin allows closure of the connecting channel and repair of any hernia. This out-patient surgery is associated with small risks of bleeding, bruising, infection and injury to the spermatic cord structures.

Epididymal cysts

Cysts are thin-walled collections of watery fluid that can develop anywhere in the body. When located in the epididymis they are called **spermatoceles** or **epididymal cysts**. The cause of most epididymal cysts is unknown although some may result from injury or infection.



Epididymal cysts are variable in size (some may be larger than the testicle) and, often, cause minimal symptoms. Treatment for these cysts generally is not required. Surgical removal is possible for larger and uncomfortable cysts. This surgery and complications are similar to that of hydrocele repair. With surgery for epididymal cysts, there may be some risk of interfering with future fertility.

Varicocele

A varicocele is a collection of abnormally dilated veins in the spermatic cord. The veins that carry blood away from the testicle normally have valves that prevent back-flow. When these valves are defective, blood may pool in these veins causing engorgement and dilation, much like varicose veins in the legs.

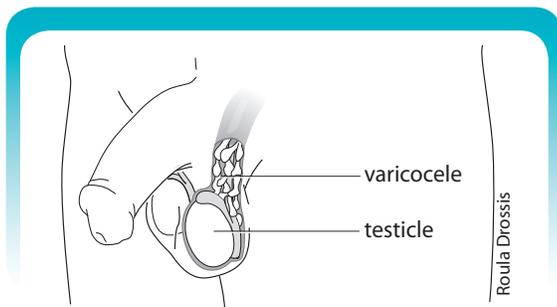
Varicoceles are common, occurring in up to 15% of all men. Varicoceles may vary in size from barely detectable to very large. They occur most commonly on the left side but, in some, both sides are affected. Many men have no symptoms although some may notice a scrotal swelling that feels like a soft ropy mass or “bag of worms”. The dilated veins will be more apparent when standing and they often disappear when lying down. Some men may experience a mild aching or heaviness often brought on by physical activity or standing for a long time. Occasionally, a varicocele will be found in a man during the investigation of **infertility** (difficulty getting his partner pregnant).

Continued on next page

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Treatment of a varicocele is usually not necessary unless it causes significant discomfort. Occasionally, varicocele repair may be recommended if it is thought to impair the growth of the testicle (especially in adolescence) or in those with a fertility problem.



There are a number of ways to repair a varicocele. The dilated veins can be exposed and tied off through a small surgical incision in the groin or lower abdomen. This out-patient procedure is usually performed under general anesthetic. The dilated veins can also be occluded with a small plug placed through a small tube advanced through the groin into the vein under x-ray control (**embolization**). This procedure is carried out in the hospital imaging department by an x-ray specialist using local anesthetic.

Varicocele repair is usually very effective, although some dilated veins may recur over time. Complications such as infection, bleeding and hydrocele formation can occur. As well, injury to some of the structures in the spermatic cord can cause rare complications such as blockage of the vas deferens or shrinkage of the testicle (**atrophy**).

Scrotal swellings are common and rarely related to serious health problems. When necessary, they can be corrected with minor surgery.



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