

Undescended testicles

Testicles (testes) are male sex glands that produce sperm and sex hormones. Usually, both testicles are located in the scrotum. Undescended testicles means that either one or both testicles are missing from the scrotum and are lodged instead in the groin or inside the lower abdomen.

About five per cent of all boys are born with this condition. Premature and low birth weight babies are at increased risk.

Undescended testicles should not be confused with retractile or retractable testicles. Retractable testicles are housed inside the scrotum, but they tend to tuck back inside the body under certain conditions – for example, if the boy is cold. Treatment isn't necessary as long as the retractile testicles stay put inside the scrotum most of the time before the onset of puberty.

Other terms for undescended testicles include empty scrotum, monorchism and cryptorchidism.

Symptoms of undescended testicles

The symptoms of undescended testicles include:

- The scrotum is empty on the affected side.
- Sometimes, the scrotum is empty on both sides.
- The condition is painless.
- Urination is not affected.

The development of the testicles

The testicles form inside the abdomen of the male fetus. Between 25 and 35 weeks gestation, the baby's testicles migrate down slender channels in the lower abdomen (inguinal canals) and settle into the scrotum. In most cases of undescended testicles, only one testicle (testis) is absent. In around one in ten cases, both testicles are missing.

A premature baby is at increased risk because the migration of the testicles hasn't had time to occur in utero (in the womb). Around 17 per cent of male newborns that weigh under 2.3kg have undescended testicles. The lower the birth weight, the higher the risk; nearly 100 per cent of male babies weighing under 907g are born with the condition.

Associated problems

Undescended testicles are linked to a range of health problems and conditions, including:

- **Poor self-image** – abnormal testicles can have a negative impact on the boy's confidence and self-esteem.
- **Hernia** – a boy with undescended testicles is at increased risk of inguinal hernia.
- **Trauma** – an undescended testicle is at higher risk of injury.
- **Infertility** – testicles are housed in the scrotum because sperm production requires a temperature a few degrees lower than the body. Undescended testicles that are not brought into the scrotum from a young age will not produce sperm. Even with surgical correction, higher rates of infertility are seen.
- **Testosterone (Androgen) deficiency** – bilateral undescended testes increase the risk of developing testosterone deficiency.
- **Cancer** – the risk of testicular cancer is 10 times higher for males with undescended testicles than for the general male population. This risk may remain even after corrective surgery. Onset usually occurs between the ages of 25 and 40 years.

Acquired undescended testicles

Occasionally, a boy's testicles migrate back inside the body even though they were properly housed in the scrotum at birth. This condition is known as acquired undescended testicles, or acquired cryptorchidism. It can occur when the boy is aged between one year and 10 years.

The suspected cause is that the spermatic cords, which attach each testicle to the body, fail to grow at the same rate as the rest of the child. The comparatively short spermatic cords gradually pull the testicles out of the scrotum and into the groin.

Diagnosis of undescended testicles

Undescended testicles are diagnosed by physical examination. In some cases, the missing testicle can be felt in the lower abdomen.

Treatment for undescended testicles

Treatment can include hormone injections to prompt the testicles to descend, although surgical correction is the preferred treatment.

Ideally, the child should be aged between six months and two years at the time of surgery. Research suggests that future sperm quality in the affected testicle is compromised if the condition is corrected after the child is two years old. However, the operation is still possible at a later age – for example, if the child developed acquired undescended testicles. About 10 per cent of males who undergo surgical correction experience reduced fertility later in life.

Surgical repair

Surgery to relocate the testicles inside the scrotum is called orchidopexy. The operation procedure generally includes:

- A general anaesthetic is given.
- An incision is made in the groin to access the testicle inside the inguinal canal.
- The testicle is taken out of the inguinal canal.
- The spermatic cord that links the testicle to the body is 'unkinked' and gently stretched to its full length. Obstructive tissue may have to be cut away to achieve this.
- An incision is made in the scrotum.
- The testicle is placed inside the scrotum and stitched securely.
- All incisions are closed.

Vanished testicle

In about five per cent of cases, surgeons can't find the missing testicle. It is thought that the developing testicle may have died in utero because of an interrupted blood flow.

Vanished (or absent) testicle is also associated with other birth defects of the urinary system, such as abnormal blood vessel networks to the tubes that carry sperm (vas deferens).

Where to get help

- Your doctor
- Paediatrician

Things to remember

- About five per cent of boys are born with undescended testicles.
- Premature and low birth weight babies are at increased risk.
- Undescended testicles are linked to a range of health problems and conditions, including hernia, testicular cancer and infertility.

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