

# Undescended testes

## What are undescended testes?

The testes develop inside the abdomen in the male fetus and then move down (descend) into the scrotum before or just after birth. Undescended testes (or cryptorchidism) is a condition when one or both of the testes have not descended into the scrotum at birth, but stay in the abdomen or only move part way down into the scrotum (see Figure).

In many boys, an undescended testis at birth will move into the scrotum on its own before three months of age. If a testis is not in the scrotum by three months of age, it is unlikely that it will descend by itself and will need to be treated.

## What causes undescended testes?

Undescended testes can be unilateral (one) or bilateral (both), and are often found in babies with hormonal problems. Babies born with Klinefelter syndrome, spina bifida and Down syndrome are more likely to have undescended testes. However, for many babies the cause of undescended testes is unknown, although low levels of androgens (male sex hormones) during the prenatal period is suspected to be a common cause.

## How common are undescended testes?

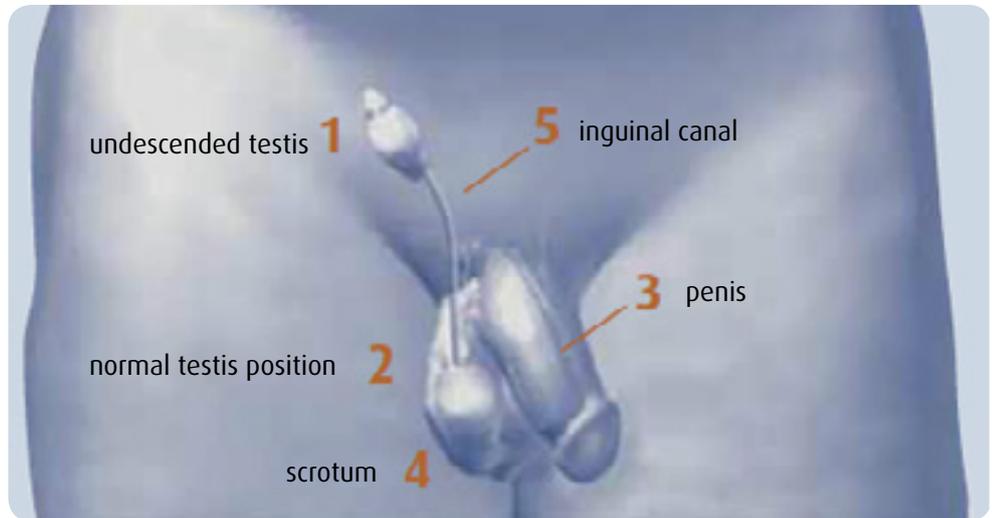
About one in 20 boys are born with undescended testes. This number drops to around one in 50 by three months of age because the testes often move into the scrotum during this time without any treatment. In some countries, the prevalence of cryptorchidism is thought to be increasing for unknown reasons.

## How are undescended testes diagnosed?

Undescended testes are diagnosed through a physical examination by a qualified doctor. In some cases a missing testis can be felt in the lower abdomen.

## What are retractile testes?

Undescended testes should not be



confused with retractile testes. Retractable testes are when, on occasion, the muscle attached to the testis (the cremasteric muscle) pulls the testis up into the groin so that it cannot be felt or seen.

If the testis can be moved back down to the scrotum and stays there, then no further treatment is needed. However, these testes need to be observed over time as they may become 'acquired undescended testes'. Retractable testes can stay higher in the scrotum over the years, but usually move into the normal position by puberty.

## What are acquired undescended testes?

When a boy is born with his testes in the scrotum, they can occasionally move back out of the scrotum and into the groin. This is a condition called acquired undescended testes, or acquired cryptorchidism, which can happen between one and 10 years of age.

It is thought to be caused by the spermatic cords that attach each testis to the body not growing at the same pace as the rest of the body. The short spermatic cords slowly pull the testes out of the scrotum and into the groin.

## What is an absent testis?

In about one in 20 cases of undescended testes, there is a complete absence of the testis. It is thought that an

interrupted blood flow may cause the developing testis to die before birth.

An absent (or vanished) testis can also be associated with other birth defects of the urinary system, such as abnormal

**In most boys, the testes grow in the abdomen and move down into the scrotum before birth**

blood vessel networks to the vas deferens (the tubes that carry sperm).

## Why should undescended testes be fixed?

Undescended testes are linked to a range of health problems later in life.

### Fertility

The temperature in the scrotum is lower than in the abdomen, and sperm-producing tubes in the testes work better at this cooler temperature. If a testis is exposed to higher temperatures than when it is in the scrotum, it can affect sperm production.

Bringing the testis down into the scrotum between six and 12 months of age can improve fertility later in life. Men born with bilateral (both sides)

undescended testes usually have very poor sperm quality, even if they are fixed by surgery.

## Cancer

The risk of developing testicular cancer is up to five times greater than in the general male population. However, testicular cancer is uncommon.

About 700 cases of testicular cancer are diagnosed each year in Australia, mostly in men aged 18 to 39 years.

Men have a higher chance of testicular cancer even after early placement of the testis into the scrotum. The normally descended testis opposite the undescended one also has a higher chance of developing cancer.

## Trauma

When a testis is trapped in an abnormal position it is at higher risk of injury or torsion (twisting and cutting off its blood supply). A testis in the scrotum has more movement and is less likely to be injured in ordinary activity.

## Hernia

A hernia sac, a lump that appears when loops of bowel descend through the same membranous tunnel that the testis went down through the abdominal wall, is often found with an undescended testis. If an operation is done to bring the testis into the scrotum, the hernia is found and fixed at the same time.

## Poor self-image

As boys get older, body image becomes more important, especially during teenage years. Abnormal testes can have a negative impact on a boy's confidence and self-esteem. Placing the testis in the scrotum makes the scrotum look normal.

## How are undescended testes treated?

Undescended testes can be treated in

two ways:

- orchidopexy (an operation)
- hormone treatment (injections) in some special circumstances

The standard treatment is an operation called an orchidopexy. This surgery involves finding the testis in the abdomen or higher in the scrotum, then bringing it down into the scrotum.

Although rarely used in Australia, in some cases hormone injections can help the testis move down into the scrotum. The hormone injected is called human chorionic gonadotrophin (hCG), which helps the testes make male hormones. Hormone injections work best if the testis is already very close to the scrotum and if the undescended testis were acquired after birth.

## When should orchidopexy (surgery) be performed?

Testes that are not descended at birth often come down in the first three months, so it is best to wait until this age before deciding on surgery. If at three months of age the testis cannot be felt or is very high, it is unlikely that it will come down without treatment.

Rarely the testes are too badly damaged to be brought down. The testes are removed if this happens.

## What happens during surgery?

The child has a general anaesthetic. A cut is made in the groin to get to the testis inside the inguinal canal (passage where the testes descend into the scrotum).

The testis is then taken out of the inguinal canal. The spermatic cord that links the testis to the body is 'unkinked' and gently stretched to its full length. A cut is then made in the

It is best to wait until three months of age before deciding on surgery, which can be planned between 6-12 months of age

scrotum and the testis moved down into the scrotum.

Stitches are put in place once the testis is in position to make sure the testis does not pull back out.

In most cases, the child will go home on the same day as the surgery.

## Are there any complications with surgery?

Wound infection or bleeding may happen, as with any operation. It is possible to injure the delicate testicular blood vessels or the vas deferens.

Rarely, the testis does not reach the scrotum after the first surgery and a second surgery is needed.

## What if an adult finds he has an undescended testis?

If an adult discovers that he has an undescended testis, moving the testis into the scrotum at this point will not improve fertility. In adult men, an undescended testis is usually removed. Often, if the man is over 40 years of age, nothing is done.

## Can undescended testes be prevented?

Doctors do not know how undescended testes can be prevented.

## Why must boys be told if they had undescended testes at birth?

Boys with undescended testes have a higher chance of reproductive health problems later in life.

For more information visit [www.andrologyaustralia.org](http://www.andrologyaustralia.org), call 1300 303 878, or speak to your doctor.

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