

Undescended Testicles Patient Guide



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Urology Care Foundation Pediatric Health Committee

Chair

Rosalia Misseri, MD

Committee Members

Amanda C. North, MD

Glen A. Lau, MD

Candace F. Granberg, MD

Robert A. Mevorach, MD

Courtney Rowe, MD

Introduction: When Your Baby is Born

It's incredibly exciting to see your newly born baby boy! But if you learn that his genitals don't look quite right, it can be frightening. Your health care provider may be the first to notice that your newborn's testicles may have not descended fully before birth. His scrotal sac/scrotum (the skin sac behind the penis) may be empty.

Before birth, a baby boy's testicles develop and form inside his abdomen. They then move down (descend) into the scrotum. If one or both of his testicles don't descend the way they should, they are called "undescended". The medical term is cryptorchidism. It is more common for one testicle to be undescended rather than both. Usually, the other testicle is still there, it's just higher up than it should be.

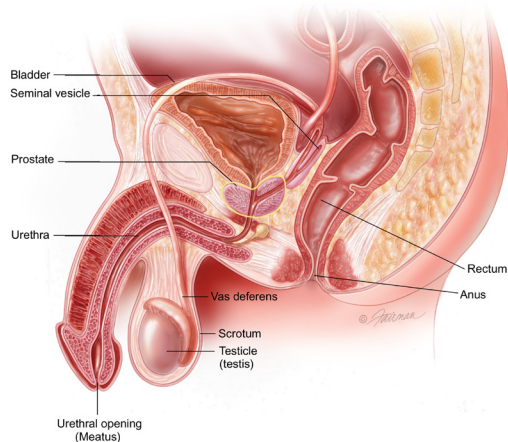
An undescended testicle is most often seen with boys who are born prematurely. It can be found in a full term baby. About 3 to 4 out of 100 babies are born this way.

An undescended testicle will often drop down as it should within the first few months of life. If this doesn't happen naturally by 6 months, it's important to get evaluated by a specialist (pediatric urologist). Testicles that remain up high are at risk of damage. This could affect fertility later or lead to other medical problems.

In this guide we provide information to help you figure out what to do if your baby boy is born with an undescended testicle.

How Does the Male Reproductive System Form?

Male Reproductive Organs



The **male reproductive system*** includes the penis, **testicles** and **scrotal sac/scrotum**. These organs make, store and transport **sperm**. A sperm is a very tiny male sex cell. The sperm cell is needed to fertilize a woman's egg (ova) to make a baby.

- The penis includes the glans (the head), the corona (the ridge between the head and the shaft) and the shaft (the long part of the penis). The **urethra** is the opening at the tip.
- The testicles are two organs that hang in a pouch-like skin sac (the scrotum) below the penis. These organs are where sperm and testosterone (the male sex hormone) are made.
- The scrotum is designed to keep the testicles cool, away from the body. This is because sperm can't grow at body temperature. Sperm start growing in the testicles and gain movement and maturity while traveling through the **epididymis**.

Normal testicles form early in a baby boy's growth, while still in the **womb**. They form in the lower belly (**abdomen**) and drop into the scrotum toward the end of pregnancy. Normal testicles attach themselves with stretchable tissue in the bottom of the scrotum. This is controlled by the baby's normal hormones.

* All words that appear in blue italics are explained in the glossary.

What Are Undescended Testicles?

"Undescended testicle" is the term used when one or both of the testicles fail to descend into the scrotum. Your baby's pediatrician will evaluate for this during a routine exam. The scrotum looks and feels empty.

About 3 or 4 out of 100 newborn boys (up to 21 out of 100 premature newborns) have this defect. Only 10 out of 100 infants who have undescended testicles have them on both sides. Most of the time there are no other symptoms besides an empty scrotum.

Testicles that don't descend into the scrotum won't work normally. Testicles sit in the scrotum, to be at slightly lower than body temperature in order to keep sperm healthy. While the testicles are in the abdomen, they are warmer than they should be. If they are at a higher temperature for too long, the sperm will not mature well. This can lead to infertility. This is a greater risk when both testicles remain within the abdomen.

Undescended testicles are also linked to a higher risk of:

- Testicular cancer in adulthood
- Testicular torsion (twisting of the blood vessels that bring blood to and from the testis)
- Inguinal **hernia** (a hernia that develops near the **groin**)

In about half of the boys born this way, the testicle will descend into place on its own. This often happens within the first 3-6 months of life. If they don't descend after 6 months, they should see a **pediatric urologist** and treatment may be needed.

It's important to note that this is different from **retractile testicles**. With retractile testicles, the testes are in the scrotum but they also move into the groin. They can pull up with a normal reflex to cold or fear, or with flexing of the abdominal muscles. But they can also be moved by hand from the groin to the scrotum. A pediatric urologist can tell the difference with a physical exam.

If undescended testicles appear in an older child, it is called an **ascending testicle**. This happens because the testicle isn't attached in the scrotum. It is noticed as the child grows. The testicles are descended normally at birth, but later in childhood they are diagnosed with an ascending testicle. About 1 out of 5 of these cases are found in older boys. These testicles need surgery to "fix" them into the scrotum. Sperm may not mature if the testicle stays ascended.

Only testicles that are truly undescended need treatment. To assure good genital health, boys should be checked during their yearly exam.

What Causes This Problem?

Why the testicles fail to descend is not clear. It could be because the baby is born early and the testicles didn't fully develop. Or, the testicles descend but miss the scrotum.

They may end up next to the scrotum instead (*ectopic testicles*). Or, the baby's hormones can't stimulate the testicles the way they should.

No studies have shown that this is from something the mother was exposed to or ate during pregnancy. Some studies have found that genetics can play a role, passed down from a male relative.

GET DIAGNOSED

An exam by a pediatrician or pediatric urologist will confirm that one or both testicles are not in the scrotum. The doctor may or may not be able to feel the testicle in the abdominal wall.

A testicle that cannot be felt in an exam is called "nonpalpable." *Nonpalpable testicles* may be in the abdomen (undescended), very small (atrophic) or not there at all.

It's important to find out if a testicle is there, but hasn't dropped. An undescended testicle left inside the abdomen could form a *tumor* later in life. Such a tumor might not be noticed until it becomes large or causes symptoms.

Although an ultrasound is sometimes able to show if the testicles are present, it is not a perfect test. Because it is not a perfect test, it should not be used to look for an undescended testicle before the patient is seen and examined by a pediatric urologist.

GET TREATED

If your baby's testicle doesn't descend into place by 6 months, you should take your baby to see a specialist. A pediatric urologist can talk with you about surgery. Surgery is required when testicles don't drop naturally. Drugs and hormone treatments have not been found to help.

The timing for surgery will depend on:

- Your child's age
- His general health
- His medical history
- His ability to tolerate *anesthesia* and surgery
- Your own comfort level and treatment goals

Surgery to move testicles into the scrotum is called an *orchiopexy*. Overall, this surgery is very successful (98 out of 100 cases are successful). The surgery involves a small cut in the groin area. This is done to find the testicles. Another small cut is done near the scrotum to put the testicles in the correct place. This surgery usually takes 45 minutes. In some cases, depending on the location of the testicles, a completely scrotal approach may be possible through a single scrotal cut.

To start, the child is given general anesthesia. Almost always, the child can go home the same day as surgery. Normal activities can be done within one to two days.

Pediatric urologists are experts in *laparoscopic surgery*. Laparoscopy is surgery done through a small cut on the abdomen with a special, tiny camera and tools to work inside your child's body. This surgery is done when your doctor cannot feel the testicles to look for them in the abdomen.

With laparoscopy, a cut is made in the belly-button area. Most often, no scar is seen later. The testicle(s) found in the abdomen are freed from nearby tissue. They can then be moved into the scrotum. There, the testicle is stitched into place.

If there is a hernia (a bulging of an organ or tissue through an abnormal opening), it is fixed at the same time. In some cases, the testicle is too high for this simple surgery. Other methods (and sometimes even two surgeries) may be needed to fully bring the testicle(s) into the scrotum.

OTHER CONSIDERATIONS

After Treatment

After treatment, most children grow normally and in good health. They can become fertile like all healthy men. The testicle often grows to regular size in the scrotum. However, if the testicle wasn't normal to start with, it may never grow the right way. Other times, sperm won't grow in a testicle that couldn't develop in the scrotum.

When the child becomes a teen, he should have routine physical exams. He should also learn to do testicular self-exams every month. This precautionary care is used to look for signs of testicular cancer. Even though the risk is small for testicular cancer, it is still important to do monthly self-exams.

Questions to Ask Your Doctor

- Should I wait to treat my baby?
- Are there any side effects from surgery?
- How long is recovery?
- What should be done after surgery to care for my baby?
- Will my baby have any problems in the future if he's treated now?
- Will my baby be fertile and able to have children of his own?
- Can we do anything to lower my baby's risk for testicular cancer in the future?

Abdomen

Also known as the belly. It is the part of the body that holds all of the organs between the chest and the pelvis.

Anesthesia

Medicine that is used to help patients fall asleep and feel no pain in all or parts of their body. This is used for surgery or other medical tests.

Ascending testicle

The testicle can look like it's in the normal position, but it isn't attached and can move up as the child grows. If the testicle remains descended, surgery is needed. This is found in older boys.

Ectopic testicles

The testicles descend but miss the scrotum. They may end up next to the scrotum instead.

Epididymis

A coiled tube behind each testicle where sperm travels as it matures.

Groin

The area between the abdomen and the thigh area on either side of the body.

Hernia

A bulging of an organ or tissue through an abnormal opening.

Laparoscopic surgery

A procedure where tiny plastic tubes are placed through a small cut in the patient for surgery. With these tubes, a tiny camera allows the surgeon to see inside the patient to perform surgery.

Male reproductive system

The male reproductive organs are the penis, scrotum and testicles. They produce, maintain and transport sperm (the male reproductive cells) and protective fluid (semen).

Nonpalpable testicles

A testicle that cannot be felt on a physical exam. It may be in the abdomen (undescended), very small ("atrophic") or not there at all.

Orchiopexy

The main surgery to move testes into place and attach them in the scrotum.

Pediatric urologist

A surgeon who is expertly trained to diagnose, treat and manage children's urinary tract and genital problems.

Retractile testicles

A normal reflex where the testicle drops into the scrotum, but it doesn't stay in place. It can move up and down with a reflex response to cold, fear or with flexing the abdominal muscles. This may be noticed after six months of age.

Scrotal sac/scrotum

The scrotum (or scrotal sac) is a part of the male sex organs that is located behind and below the penis. It is the small sac that holds and protects the testicles, blood vessels and part of the spermatic cord.

Sperm

Male reproductive cells made in the testicles that can fertilize a female's egg.

Testicles

Two organs that hang in a pouch-like skin sac (the scrotum) below the penis. This is where sperm and testosterone (the male sex hormone) are made. They are also called testes.

Tumor

An abnormal mass of tissue or growth cells.

Undescended testicle (cryptorchidism)

The term used when one or both of the testes fail to drop into the scrotum.

Urethra

The tube connecting the urinary bladder to the genitals (in both men and women). In the penis, it is the tube that carries urine and sperm out of the body.

Womb

A hollow, pear-shaped organ located in a woman's lower abdomen where a baby develops before it is born. It is medically called the uterus.

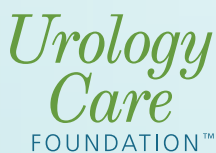
Notes

About the Urology Care Foundation

The Urology Care Foundation is the world's leading urologic foundation – and the official foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make health changes. Our information is based on the American Urological Association resources and is reviewed by medical experts. To learn more, visit the Urology Care Foundation's website, **UrologyHealth.org/UrologicConditions** or go to **UrologyHealth.org/FindAUrologist** to find a doctor near you.

Disclaimer

This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologist or healthcare provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications. For more information, visit **UrologyHealth.org/Download** or call 800-828-7866.



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American
Urological
Association

National Headquarters: 1000 Corporate Boulevard, Linthicum, MD 21090
Phone: 410-689-3990 • 1-800-828-7866 • info@UrologyCareFoundation.org • UrologyHealth.org

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