

Testicular cancer

What is testicular cancer?

Testicular cancer starts as an abnormal growth or tumour in a testis. A cancer will usually appear as a painless lump in a testis. If a man sees a doctor as soon as a lump, swelling or pain in a testis is noticed, the cancer can remain localised (remain within the testis). However, if not treated, the cancer typically spreads to other parts of the body via the blood or lymphatic system. Testicular cancer has a very good cure rate (over 95 per cent).

How common is testicular cancer?

Testicular cancer is not very common, being diagnosed in about 700 Australian men each year; however, in men aged 18–39 years it is the second most common form of cancer.

undescended testes, it is important for families to share details of medical history with boys in early adolescence so they are aware of the need to regularly check their testes.

Can I do anything to prevent testicular cancer?

As the causes of testicular cancer are largely unknown, there are no known ways to prevent it.

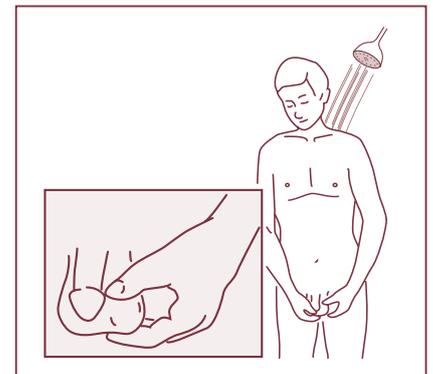
There is no evidence that injury or sporting strains, life-style (for example smoking or diet), or sexual activity are linked with testicular cancer. However, an injury to the groin area may sometimes prompt men to check or notice a problem with the testes that needs further investigation by a doctor.

backache, coughing or breathlessness, and enlarged or tender nipples may mean that the cancer has spread.

A man with any of these symptoms should see a doctor straight away; however, there may be many other reasons for these symptoms.

What is testicular self-examination (TSE)?

A testicular self-examination (TSE) is a quick and simple process, which may be easier after a warm bath or shower when the skin of the scrotum is relaxed.



Using the palm of your hand, support your scrotum. Gently roll one testis between thumb and fingers to feel for any lumps or swellings in or on the surface of the testis. Repeat with the other testis. The testes should feel firm and the surface should feel smooth.

Using the thumb and fingers, feel along the epididymis at the back of the testis. The epididymis is a soft, highly coiled tube that carries sperm from the testis to the vas deferens. Check for any swelling in this area.

If there is any change to how the testes feel normally, see your local doctor (GP) straight away.

It is normal for one testis to be slightly bigger than the other and the left testis often hangs lower than the right.

When should I see a doctor if I have a lump in my testis?

If you notice a hard lump or any change in your testes, see your local doctor (GP) straight away. You may be

RISK FACTORS FOR TESTICULAR CANCER

Undescended testes (cryptorchidism)	A condition when one or both of the testes have not descended (lowered) into the scrotum at birth but stay in the abdomen or only move part way down into the scrotum Found in three to five boys in every 100 Men with a history of undescended testes have about ten times the chance of testicular cancer; the risk may be lower if surgery to fix the problem happened before one year of age. Where there has been a single undescended testis, the risk of cancer is usually only in that testis.
Previous testicular cancer	About 1 in 25 men who have had testicular cancer in one testis develop cancer in the other testis
Previous male infertility	Men diagnosed with fertility problems, particularly those with a history of undescended testes, may have a greater chance of developing testicular cancer Pre-cancer cells (ITGCN) are sometimes found in testicular biopsies from infertile men (not all pre-cancer cells will develop into cancer)
Family history	Having a father, brother or uncle with testicular cancer is a minor risk factor
Down syndrome	Men with Down syndrome may be at higher genetic risk of testicular cancer, gastrointestinal cancer and leukaemia.

What are the risk factors for testicular cancer?

Young men (about 20 to 40 years of age) are most at risk of developing testicular cancer.

Due to the higher risk of testicular cancer in men with a history of

What are the symptoms of testicular cancer?

A hard lump in either testis is the usual symptom of testicular cancer. The lump is usually painless but in about one in 10 men it is painful or tender. In a few men, constant

referred to a urologist. Urologists are doctors (surgeons) who specialise in diseases of the urinary tract in men and women, and the genital organs of men.

How is testicular cancer diagnosed?

To determine whether a lump in the testis is cancer a doctor will take a detailed medical history, do a physical examination and an ultrasound scan of the testes, and may request blood tests and other scans.

Many lumps are found to be fluid-filled cysts within the scrotum and are not cancer. The chest and abdomen will also be checked in case the cancer has spread to other parts of the body.

How is testicular cancer treated?

The treatment options for testicular cancer depend on the type and stage of cancer.

An orchidectomy (surgical removal of the affected testis) is the first stage of treatment for all suspected cases of testicular cancer. The removed testis is then sent to a pathology laboratory to confirm the stage and type of cancer.

In recent years, surveillance (careful monitoring) has become a more popular option after orchidectomy for localised testicular cancer. This is where the man is checked regularly to assess whether the cancer has moved elsewhere in the body, including the other testis.

Chemotherapy or radiotherapy may be given after surgery to kill off any cancer cells that may have spread to other parts of the body. The level or amount of chemotherapy and radiotherapy will be different for each man and will depend on the stage and type of cancer.

The doctor will look at each case individually to assess the chance of the cancer moving from the testes before deciding on the best treatment.

What are the short-term side-effects of treatment?

Most side-effects of radiotherapy and chemotherapy are short-term and can be minimised with other treatments.

SHORT-TERM SIDE-EFFECTS OF TESTICULAR CANCER TREATMENTS

RADIOTHERAPY

- Temporary hair loss within the area of treatment that usually grows back once treatment stops
- Bowel upsets or diarrhoea happen rarely

CHEMOTHERAPY

- Temporary hair loss
- Kidney damage
- Tinnitus (hearing loss/ ringing in the ears)
- Neuropathy (nerve damage) with decreased sensation or numbness in hands and feet
- Bone marrow suppression leading to a lower white cell count that may cause an increase in infections, and sometimes anaemia (low blood red cell count)
- Inflammation of the gums, possibly with mouth ulcers
- Inflammation and scarring in the lung after chemotherapy using bleomycin

What follow-up is needed after testicular cancer treatment?

Follow-up and ongoing health checks by qualified health professionals are important after surgery, radiotherapy and chemotherapy, to make sure that the cancer has not returned. Check-ups may include physical examination, blood tests, X-rays and scans, and continue for at least ten years after treatment. If any new symptoms appear between check-ups, it is important to see a doctor straight away.

Does testicular cancer treatment affect sexual function?

Many men find that testicular cancer and its treatment do not affect their sexual performance. However, the stress and anxiety of cancer can affect sexual function. Concerns about changes in body image may also cause sexual problems and anxiety.

Can testicular cancer cause infertility?

Men who are diagnosed with testicular cancer are more likely to have lower fertility, or complete infertility, even before any treatment starts. Fertility can be further affected by cancer treatments such as radiotherapy and chemotherapy.

For this reason, men with suspected cancer should have their fertility assessed prior to any treatment, with semen analysis and hormone level tests. Sperm should be frozen (ideally prior to orchidectomy) to be used at a later date if required.

However, in many men, after a cancerous testis is removed, the remaining testis continues to make testosterone and sperm and fertility may be unaffected.

Why is sperm storage important?

All men who are going to have chemotherapy or radiotherapy should speak to their doctors about their fertility before treatment begins.

It is highly recommended that men produce semen samples (through masturbation) for sperm storage (also known as sperm banking). Sperm storage should take place before chemotherapy or radiotherapy starts.

Semen can be frozen and stored long-term for future use. At a later stage, the frozen semen can be thawed and used in fertility treatments such as IVF (in vitro fertilisation). Modern IVF treatments can be successful with just a few moving sperm.

Expert reviewer

Dr Gideon Adam Blecher
MBBS (Hons) FRACS (Urol)
Western Health, Melbourne
Date reviewed: June 2018

© Andrology Australia 2014



Andrology Australia is an initiative funded by the Australian Government Department of Health
c/o School of Public Health and Preventive Medicine, Monash University
PO Box 315, Prahran
Victoria 3181, Australia

The information in this fact sheet has been provided for educational purposes only. It is not intended to take the place of a clinical diagnosis or proper medical advice from a fully qualified health professional. Andrology Australia urges readers to seek the services of a qualified medical practitioner for any personal health concerns.