



# Testicular Cancer

## What is testicular cancer?

Testicular cancer is a condition where the cells within the testis grow and divide abnormally and a tumour grows in the testis. The testes are a pair of oval-shaped glands that are suspended in a pouch of skin called the scrotum.

A cancer will usually appear as a painless lump in a testis. If medical attention is sought as soon as a lump, swelling or pain in a testis is noticed, this cancer can remain localised. However, if left unattended, it typically spreads via the blood or lymph nodes.

## How many men are affected with testicular cancer?

Although a relatively rare disease, affecting about 550 Australians a year, testicular cancer is the second most common form of cancer amongst men aged 18 – 39.

## Who is most at risk of testicular cancer?

Young men aged between 20 and 40 years of age are most at risk of developing testicular cancer and should regularly examine themselves for lumps in the testes. There are also certain risk factors associated with testicular cancer, including:

### Undescended testes

Men who were treated for undescended testes as infants are the greatest at risk group. Undescended testes is a condition where one or both of the testes are not lowered into the scrotum, but remain in the abdomen after the first year of life.

About one in 10 men with testicular cancer have had undescended testes in childhood. It is therefore important for families to share details of medical history in adolescence so the need for increased awareness is known.

### Previous testicular cancer

Cancer in one testis is a major risk factor for the development of cancer in the other testis. About one in 25 men who have had testicular cancer may develop cancer in the other testis.

### Previous male infertility

Men with a history of male infertility may be at more risk of this cancer than men with normal fertility.

### Family history

Family history (father, brother, uncle with testicular cancer) is only a minor risk factor for testicular cancer.

## What are the signs of testicular cancer?

A hard lump within the testes is the usual symptom of testicular cancer. This can be painful in 10-20% of affected men. Other symptoms may include swelling and tenderness of the testis or scrotum. Some men with testicular cancer experience a dull ache in the lower abdomen.

In a few men, constant backache, cough or breathlessness, enlarged or tender breasts may also mean that the cancer has spread and you should see your doctor straight away. However, there may be many other reasons for these symptoms.

## Does sport or lifestyle increase risk of testicular cancer?

There is no proven medical evidence of a link between testicular cancer and injury or sporting strains. Men involved in sports such as cycling are NOT considered to be at greater risk. Similarly lifestyle (for example smoking or diet) or level of sexual activity do NOT increase chances of developing testicular cancer.

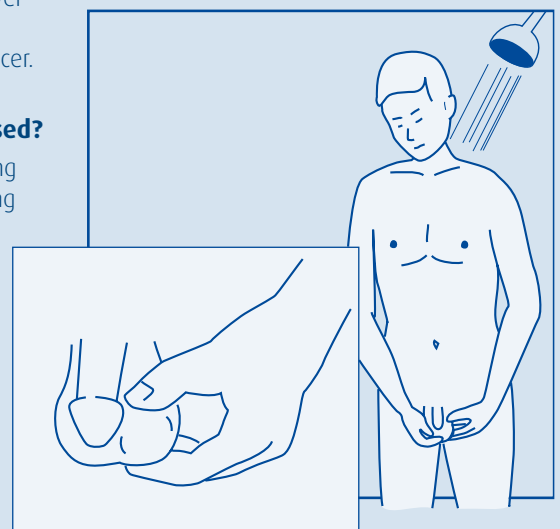
## How is testicular cancer diagnosed?

Diagnosis normally involves providing a detailed medical history and having a full medical examination. An ultrasound of the testes will usually be performed to confirm that the lump or tumour is solid and is actually within the testis. Some lumps are found to be fluid filled cysts within the scrotum and these are often far less dangerous.

A biopsy is NOT recommended for the diagnosis of testicular cancer as it can increase the chances of the cancer spreading to other parts of the body. Chest and abdomen examinations are performed to check whether the cancer has spread to other parts of the body.

## How is testicular self-examination (TSE) performed?

- Ideally after a warm bath or shower, when the skin of the scrotum is relaxed, use the palm of the hand to support the scrotum and become familiar with the texture and size of each testis.
- 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 smooth.
- Using 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 it feels normally, see a local doctor.



## TESTICULAR CANCER TREATMENT

### What are the main forms of treatment for testicular cancer?

Testicular cancer treatment depends on the type and stage of cancer. There are three main types of treatment that may be used either on their own or together to treat testicular cancer:

#### Surgery

Surgical removal of the affected testis (an orchidectomy) is the first stage of treatment for all suspected cases of testicular cancer. Removal of the testis through a cut just above the groin is performed under general anaesthetic. The surgical removal of one testis does not affect the ability to achieve an erection or to father children.

#### Radiotherapy

Radiotherapy is commonly used to prevent the testicular cancer from coming back or to destroy any cancer cells that may have spread.

High energy X-rays kill the cancer cells while minimising damage to normal cells. A radiation oncologist will decide on the length of treatment which may last between two and five weeks.

#### Chemotherapy

Men with early stage disease who relapse and those with advanced disease are generally referred for chemotherapy with excellent results. Even men with extensive cancer spread usually have successful outcomes with modern day treatment.

Chemotherapy drugs are given intravenously (via injection into a vein). These circulate in the blood stream to kill cancer cells throughout the body. The course of treatment is usually over four months. Each month one cycle of chemotherapy is given, followed by rest to allow the body to recover from the side-effects of treatment. In some cases it may be given more often.

### Why is sperm storage recommended?

Even though surgical removal of one testis does not affect the sperm-producing ability of the remaining testis, both radiotherapy and chemotherapy can lower sperm counts temporarily or permanently.

All men who are considering chemotherapy or radiotherapy should receive advice from their doctors about fertility issues. It is highly recommended that men produce semen samples (through masturbation) for sperm storage (sperm banking). Sperm storage must take place before chemotherapy or radiotherapy starts. Semen can be frozen and stored long-term for future use. If men want children at a later stage, the frozen semen is thawed and used in fertility treatments such as IVF (in vitro fertilization).

### What are some of the side effects of treatment?

Most side effects of radiotherapy and chemotherapy are generally short-term and can be minimised with additional treatment.

### Is follow-up treatment required?

At the end of a course of treatment, a full reassessment is done including a physical examination, a chest X-ray and CT scan. If the follow-up examination shows further tumours or spread of disease then either more aggressive chemotherapy may be given or surgical removal of remaining lumps may take place.

When treatment has finished, follow-up examinations will be needed on a regular basis to check that the cancer does not return. These check-ups may also include blood tests, X-rays and CT scans and may continue for a few years after treatment. If any new symptoms appear between check-ups, it is important to see a doctor immediately.

### What options are there to assist with appearance after surgery?

Some men choose, for cosmetic or psychological reasons, to have testicular implants during or after cancer treatment to give the appearance of a normal scrotum. The implants serve no physiological function and the decision to have one inserted is a very personal one.

## Side effects of treatment

RADIOTHERAPY	CHEMOTHERAPY
Temporary hair loss within the area of treatment	Hair loss
Bowel upsets or diarrhea happen rarely	Kidney damage
	Hearing loss or ringing in the ears (tinnitus)
	Nerve damage (neuropathy) with decreased sensation/numbness in hands and feet
	Bone marrow suppression, leading to anaemia and a reduction in white cell count which may cause an increase in infections
	Inflammation and scarring within the lung following treatment with the chemotherapy drug called Bleomycin
	Inflammation of the gums, possibly with mouth ulcers

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