

Testicular Cancer

Testicular cancer is a tumour (an abnormal growth of cells) in one or both testicles. The testicles are part of the male reproductive system. There are usually two testicles located inside the scrotum (loose bag of skin) underneath the penis. These testicles are responsible for producing the male hormone called testosterone, and sperm.

Testicular cancer is one of the less common types of cancer when compared with other cancers. In 2020, the National Cancer Registry reported that the lifetime risk of testicular cancer in South Africa was one in 1652. This means that out of every 1 652 men in South Africa, one man will develop testicular cancer during his lifetime of 0-74 years.

Although this far less than the lifetime risk of one in 20 men reported for prostate cancer in the report, it is still a cause for concern as early detection can lead to early intervention and higher chances of survival. Testicular cancer is also more common in white males than in other racial groups.

What are the types of testicular cancer?

The different types of testicular cancers are classified according to the type of cells where cancer begins.

- **Germ cell testicular cancer** – this is the most common type of testicular cancer, accounting for over 90% of testicular cancers. The two main subtypes of germ cell testicular cancers are seminomas and non-seminomas.
- **Leydig cell tumours**
- **Sertoli cell tumours**

What are the causes and risk factors?

The exact cause of testicular cancer is unknown but certain factors have been found to increase the risk of developing testicular cancer:



- Young men between the ages of 15 – 49
- Undescended testicles (testicles that have not moved down into the scrotum before a male is born) or abnormal testicular development
- Family history of testicular cancer or undescended testicle
- Previous testicular cancer diagnosis
- HIV infection

What are the signs and symptoms?

The signs and symptoms of testicular cancer include:

- A lump or swelling in either testicle
- A feeling of heaviness in the scrotum
- A dull ache in the lower abdomen or groin
- Sudden swelling in the scrotum
- Pain or discomfort in a testicle or the scrotum
- Enlargement or tenderness of the breast tissue
- Back pain

Diagnosis and staging

The diagnosis of testicular cancer includes but is not limited to:

- **A physical examination and history.** The doctor will examine the testicles for lumps or abnormalities.
- **Ultrasound examination.** This imaging test uses sound waves to create images of the testicles.
- **Inguinal orchiectomy** (removal of the testicle) and biopsy for laboratory analysis. A small sample of tissue may be removed for further examination if necessary.
- **Blood tests** for tumour markers. Certain markers in the blood can help detect testicular cancer.
- **X-rays, CT scans, and MRI scans**

Diagnosing testicular cancer also includes staging the cancer. Staging allows healthcare professionals to develop a treatment plan and provides information such as the size of the tumour and whether the cancer has spread to other parts of the body.

Stages of testicular cancer

Stage 0: Abnormal cells have developed but are still inside the testicles where sperm cells start to develop. Stage 0 is also called germ cell neoplasia in situ (GCNIS).

Stage I: Cancer is confined to the testicle, which may include nearby blood or lymph vessels. Tumour markers may or may not be elevated.

Stage II: Cancer has spread to the lymph nodes in the back of the abdomen (also called the retroperitoneum) but not anywhere else. If the cancer is in the lymph nodes and there are moderately or highly elevated tumour markers, then it is stage III rather than stage II.

Stage III: Cancer has spread to lymph nodes beyond the abdomen or to an organ.

What are the treatment options?


The treatment of testicular cancer depends on many factors which include, the patient's health status, the stage of the cancer and the tumour type. Some treatment options for testicular cancer are:


- Surgery – removal of the cancerous testicle(s).
- Radiation therapy – use of high-dose X-rays to kill cancer cells. May also be used after surgery to prevent the tumour from spreading.
- Chemotherapy – medications used to kill the cancer cells.
- Surveillance – monitoring without immediate treatment.


How do you prevent testicular cancer?


As the causes of testicular cancer are unknown, there are currently no prevention methods. Males are encouraged to perform monthly testicular self-exams and to share any abnormal findings or anything of concern with their healthcare provider.


Testicular Self-Exam



1. 
*cup one testicle at a time using both hands
best performed during or after a warm bath or shower*

2. 
*examine by rolling the testicle
between thumb and fingers
use slight pressure*

3. 
familiarize yourself with the spermatic cord & epididymis tube like structures that connect on the back side of each testicle

4. 
*feel for lumps, change in size or irregularities
it is normal for one testis to be slightly larger than the other*

What is covered under PMB level of care?

Treatable testicular cancer is part of the Prescribed Minimum Benefit (PMB) regulations under the Diagnosis and Treatment Pair (DTP) code 950L. Treatable cancers are defined in the PMB regulations as solid organ malignant tumours where:

- i. they involve only the organ of origin, and have not spread to adjacent organs
- ii. there is no evidence of distant metastatic spread
- iii. they have not, by means of compression, infarction, or other means, brought about irreversible and irreparable damage to the organ within which they originated (for example brain stem compression caused by a cerebral tumour) or another vital organ
- iv. or, if points (i) to (iii) do not apply, there is a well demonstrated five-year survival rate of greater than 10% for the given therapy for the condition concerned.

Regardless of which benefit option a member or beneficiary is on, the medical scheme must pay for the diagnosis, treatment, and care costs of treatable testicular cancer in line with the PMB regulations. Screening through a physical testicular examination, consultations with doctors and other health professionals, surgery, radiology, pathology, chemotherapy, and radiation therapy are included in what the medical scheme must cover.

References

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