



# Testicular Cancer Fact Sheet



## Testicular Cancer in the US<sup>1,2</sup>

Testicular cancer is not common, but its incidence has been increasing for several decades. Testicular germ cell tumor (GCT) is the most commonly diagnosed cancer among young adult men, with rates peaking in the 30-39 age group. Because it can usually be treated successfully, a man's lifetime risk of dying from testicular cancer is low.

## Types of Testicular Cancer<sup>2</sup>

Most testicular cancers are GCTs. The 2 main types of GCTs are seminomas and non-seminomas. They are treated differently because they grow and spread differently. The 4 main types of non-seminomas are embryonal, yolk sac, choriocarcinoma, and teratoma.

Many testicular cancers are mixed and have both seminoma and non-seminoma cells. These mixed GCTs are treated like non-seminomas because they act like non-seminomas.

## Risk Factors<sup>2</sup>

- Having cryptorchidism
- Having a personal or family history of testicular cancer
- Having Klinefelter's syndrome
- Being a Caucasian male

## Screening and Detection<sup>2</sup>

Most testicular cancers can be found at an early stage. For this reason, most clinicians agree that testicular examination for men should be part of a general physical exam during a routine visit. Patient education should include a discussion of possible risk factors. Some clinicians recommend that all men perform monthly testicular self-exams after puberty.

The American Cancer Society does not have specific guidelines for regular testicular self exams, but advises men to be aware of testicular cancer and to promptly report any testicular or scrotal changes, particularly a lump to their doctor.

## Signs and Symptoms<sup>2</sup>

Some men with testicular cancer are asymptomatic. In men with symptomatic disease, the most common sign is a testicular swelling or lump. Some men may describe aching in the lower abdomen and groin, or scrotal heaviness. Non-cancerous conditions, such as testicle injury or inflammation (orchitis and epididymitis), can cause similar symptoms.

Due to hormone production, certain types of testicular cancer can cause breast development or soreness, or loss of libido in men.

Advanced testicular cancer can present with lower back or abdominal pain due to lymph node metastasis; cough, chest pain, or shortness of breath due to lung metastasis; or headaches or confusion due to brain metastasis.

## Prevention<sup>2</sup>

Many men with testicular cancer have no known risk factors. And most known risk factors are not modifiable. For these reasons, it's not possible to prevent most cases of testicular cancer.

## Treatment<sup>2,3</sup>

Prior to surgery or treatment for testicular cancer, patient education should involve discussion about fertility concerns, including sperm banking options for men of reproductive age and infertility counseling as appropriate.

A needle biopsy or transcrotal orchiectomy of the testes for diagnosis are contraindicated because they increase the risk of local recurrence and cancer spread. Testicular ultrasound should be done first and if a concerning mass is found, followed by a radical inguinal orchiectomy for diagnosis and treatment. Other treatment may be needed depending on the type and stage of cancer, tumor characteristics, tumor markers, and the patient's overall health.

- Carcinoma in situ is sometimes watched closely with repeat exams, imaging, and tumor markers. Other times, orchiectomy might be done.
- Seminomas are treated with a radical inguinal orchiectomy first. Surveillance, radiation, or chemotherapy are options after surgery depending on cancer stage.
- Non-seminomas are also treated with a radical inguinal orchiectomy first. Surveillance, retroperitoneal lymph node removal, and chemotherapy are options after surgery depending on cancer stage and level of tumor markers after surgery.
- Radiation and different chemotherapy might be recommended for more advanced cancers.
- A stem cell transplant might be recommended for recurrent testicular cancers.

## Quality of Life<sup>3</sup>

Some patients living with testicular cancer have concerns about maintaining sexual function and body image after orchiectomy. Insertion of a testicular prosthesis might be

## Testicular cancer in the US:

### 2020 estimates<sup>1,2</sup>

- New cases: 9,610
- Deaths: 440
- 5-year relative survival rate for localized stages: 99%
- 5-year relative survival rate for all stages combined: 95%

an option. It is important to emphasize that orchiectomy should not affect the ability to get an erection, but that a retroperitoneal lymph node dissection (RPLND) might cause trouble with ejaculation. Other concerns that patients and survivors most often express include possible long-lasting side effects like fertility problems, pain, fatigue, depression, sleep difficulties, changes in what they can do after treatment, and the burden on finances and loved ones.

A cancer diagnosis can profoundly impact quality of life. **Clinicians should assess for any physical, social, psychological, spiritual, and financial issues.** Integrating palliative care can help manage symptoms, address issues, and improve quality of life. It can be offered at any time from the point of diagnosis until the end of life. Throughout a patient's cancer journey, it's very important for clinicians to share information and coordinate care to ensure surveillance is ongoing.

### References

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