What is Testicular Cancer?

Testicular cancer happens when cells in the testicle grow to form a tumor. This is rare. More than 90 percent of testicular cancers begin in the germ cells, which produce sperm. There are two types of germ cell cancers (GCTs). Seminoma can grow slowly and respond very well to radiation and chemotherapy. Non-seminoma can grow more quickly and can be less responsive to those treatments. There are a few types of non-seminomas: choriocarcinomas, embryonal carcinomas, teratomas, and yolk sac tumors. There are also rare testicular cancers that don’t form in the germ cells. Leydig cell tumors form from the Leydig cells that produce testosterone. Sertoli cell tumors arise from the Sertoli cells that support normal sperm growth.

The type of testicular cancer you have, your symptoms and other factors will help guide your treatment.

Who is at Risk?

- Men with a father or brother who had testicular cancer
- Men with a history of testes that don’t drop before birth
- Men with abnormal cells in the testicle called germ cell neoplasia in situ (GCNIS)

What are the Signs of Testicular Cancer?

The signs of testicular cancer may be hard to notice, especially at first. Symptoms of a testicular tumor include:

- A painless lump in the testicle, which is the most common sign
- Swelling of the testicle, with or without pain
- A feeling of weight in the testicles
- A dull ache or pain in the testicle, scrotum, or groin
- Tenderness or changes in the male breast tissue

If you do have symptoms, your doctor should do a physical exam, an ultrasound and a tumor marker blood test. You may be referred to a urologist for care. This is a surgeon who treats testicular cancer among other things.

Testicular cancer is not diagnosed with a standard biopsy (tissue sample) before surgery. This cancer is fully diagnosed and staged after the tumor is surgically removed. At that point, the doctor will study the tissue to learn the exact type of cancer, where it is and how aggressive it is.

Learn how to do a testicular self-exam. Talk with your doctor as soon as you notice any of these signs. It’s common for men to avoid talking with their doctor about something like this. But don’t. The longer you delay, the more time the cancer has to spread. When found early, testicular cancer is curable.

What are Testicular Self-exams?

A testicular self-exam is an easy way to identify testicular tumors, or other problems, and can be lifesaving. All men and teenage boys should learn how to do a testicular self-exam. The best time to examine your testicles is just after a warm bath or shower when the scrotal skin will be relaxed. It’s best to do the exam while standing up and only takes a few minutes.

How to do a Testicular Self-exam

1. Examine each testicle. Gently but firmly roll each testicle between the thumb and forefingers of both hands. Feel the whole surface. The firmness of the testicle should be the same all around. It’s normal for one of the testicles to be slightly larger than the other.

2. Find the epididymis and vas deferens. These are soft tube or cord-like structures above and behind the testicle. Become familiar with how these cords feel so you can note any changes.
3. **Look for lumps, swelling or things that don’t seem right.** Lumps or bumps are not normal (even if they cause no pain). Pain is also not normal.

4. **Check yourself at least once per month.** Regularly look for any changes in size, shape or texture. If you notice a lump or any changes over time, you should seek medical advice.

**What are the Stages of Testicular Cancer?**

- **Stage 0:** This is not yet cancer, but a warning that cancer could grow.
- **Stage I (IA, IB, IS):** Cancer is found only in the testicle and has not spread to anywhere else in the body.
- **Stage II (IIA, IIB, IIC):** Cancer has spread to one or more lymph nodes in the belly. It has not spread to other parts of the body.
- **Stage III (IIIA, IIIB, IIIC):** Cancer has spread beyond the lymph nodes in the belly. Cancer may be found far away from the testicles, such as distant lymph nodes or the lungs.

**How is Testicular Cancer Treated?**

Often, a team of doctors, such as a urologist, oncologist or a radiation oncologist, will work together to find the best plan to treat each patient. Choices will be based on the exact diagnosis and health of the patient.

Surveillance is a way to look for change with normal checkups and is often used for men with Stage 0 and some Stage I cancers. If the cancer gets worse, then surgery to remove the testicle is often the best treatment. For Stage I patients, this may cure the cancer. After surgery, patients will be monitored to make sure all is well.

Men with stage II and III testicular cancer will need more treatment, like chemotherapy, radiation therapy or the removal of tumors that have spread to lymph nodes or farther. Radiation is mainly used when seminoma cells are found. It does not work with some forms of non-seminoma cancer cells. Chemotherapy is used for any testicular cancer that has spread beyond the testis, or if tumor markers rise after orchiectomy.

Depending on the testicular cancer diagnosis, other surgical options may be offered. Testis-sparing surgery (TSS) is an option for children, or men who have a benign tumor. For TSS, tumor markers must be negative. A surgery called retroperitoneal lymph node dissection (RPLND) is sometimes an option for men with cancers that can return. This surgery removes lymph nodes in the abdomen and should only be done by a skilled surgeon.

Prior to any treatment, men should talk with their doctor about whether or not they want to have children. Sperm banking may be useful before treatment, especially if men hope to have children in the future.

**What is the Risk for Return?**

The risk of testicular cancer coming back is very small, at 5 percent or less. There is also a very small risk of cancer growing in the other testicle. Still, it is of great value to learn how to do a testicular self-exam and visit your urologist for regular follow-ups. How often, and for how long follow-up care is needed is based on your diagnosis.

If cancer returns, the doctor will want to find it and treat it quickly. Additional treatment depends on the cancer type and location.

**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.

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