

## Testicular Cancer

It is important to realize that with timely diagnosis, testicular cancer is highly treatable and usually curable. The following information addresses the most common questions about testicular tumors and serves as a supplement to the discussion that you have with your physician.

### What happens under normal conditions?

The testicle is an egg-shaped structure with a firm, slightly spongy feel. At the top and outside edge is a separate rubbery tube-like structure, the epididymis, where sperm mature before eventually being ejaculated from the body. The consistency of the testicle should be uniform. The size of the testicles should be roughly the same.

### What are the symptoms of a testicular tumor?

Until proven otherwise, any lump or firm area within the testicle should be considered a potential tumor. Of the many men who eventually hear a diagnosis of testicular cancer, 50 percent have complained of painless swelling or enlargement of the testicle. Another 25 percent to 50 percent may have pain or tenderness. Patients may also report a dull ache in association with the lump.

Unfortunately, it is common for men to delay reporting these symptoms (up to an average of 5 months). Since the tumor can spread during that time, it is important to contact a urologist immediately when you have a symptom.

The urologist may call for an ultrasound, a simple non-invasive radiologic procedure, to confirm any suspicious lump. In addition, he/she will probably ask for a blood sample to check for tumor markers, proteins produced by most testicular malignancies that show up if cancer is present.

### What are the stages of testicular cancer?

- Stage 1: Cancer is found only in the testicle (testis).
- Stage 2: Cancer has spread to the lymph nodes in the abdomen
- Stage 3: Cancer has spread beyond the lymph nodes in the abdomen. There may be cancer in parts of the body far away from the testicles, such as the lungs and liver.

### How are testicular tumors treated?

Suspicious tumors are treated initially by surgical removal of the testicle through a small groin incision. In some instances, a testicular prosthesis may be inserted at the time for cosmetic effect.

Subsequent treatment will depend on the tumor, since testicular cancers are categorized by their cell type, which determines both how they behave biologically and respond therapeutically. The most common cell type is seminoma, a tumor responsive to both radiation and chemotherapy. Radiation is commonly utilized for treating low stage seminomas.

All other cell types are called non-seminomatous tumors. Treatment options for non-seminomatous tumors include observation, surgery or chemotherapy, depending on the cell type and extent of spread. A urologist will use a variety of imaging tools — e.g., chest X-rays and CT scans — along with blood tumor markers to "stage" or assess the cancer for treatment.

Patients with more advanced testis cancer or more aggressive tumors may require surgical removal of lymph nodes in the abdomen from the area behind the peritoneum for assessing just how far the cancer has spread. If the disease is well-advanced, the patient may be put on chemotherapy as a primary treatment. Very often specialists prescribe a drug "cocktail" or combination of two or three agents — such as cisplatin, etoposide and bleomycin — to be delivered in three or four three-week cycles. Sometimes surgical removal of residual tumors may be required after completion of chemotherapy.

## **What can be expected after treatment for testicular tumors?**

Removal of one testicle should not impair a patient's sexual potency or, in general, their fertility. They may experience a brief decrease in sperm production but the remaining gland should produce adequate amounts of testosterone.

After surgery to remove the lymph nodes, some patients' ability to ejaculate may be impaired, although this problem is uncommon with today's nerve-sparing techniques. Also, there are some medications available to help reverse ejaculation problems. Most patients are able to have a normal erection after the surgery.

However, because ejaculation can be impaired with surgery and because chemotherapy can lower sperm counts (usually only temporary), patients may wish to sperm bank prior to treatments. Once a patient has had a testicular tumor, he can expect to be followed for at least five years with periodic X-rays, CT scans and blood tests for tumor markers. Also, since he is at increased risk (approximately two percent) of developing a second tumor, it is important that he continue monthly testicular self-exams (TSE). A TSE is best done after a warm bath or shower when the skin of the scrotum is relaxed.

## **Frequently asked questions:**

### **How common are testicular tumors?**

Testicular tumors are very uncommon. Approximately three in 100,000 men develop testicular tumors each year. But while those numbers are low, testicular cancer is the most common malignancy in men, ages 20 to 34. Olympic Gold Medalist, figure skater Scott Hamilton and Tour de France champion, cyclist Lance Armstrong have had testicular tumors.

### **Are there any risk factors for testicular cancer?**

The only risk factor associated with testicular tumors is a history of an undescended testicle (cryptorchidism), a testicle that has not dropped from the abdominal cavity (where they form in fetal development) down into the scrotum by birth. Five percent to ten percent of patients who have had an undescended testicle remedied through surgery may develop a testicular cancer. Self-examination is particularly important for these men since a tumor can occur in either testicle.

### **What is the cure rate for testicular tumors?**

The good news for testicular cancer patients is that an effective strategy employing surgery, chemotherapy or radiation therapy (either alone or in combination) has created cure rates approaching 100 percent for low stage or early disease, and more than 85 percent for more advanced tumors.

### **How do I perform a testicular exam?**

Monthly testicular self-exams (TSE) are the most important way to detect a tumor early. A TSE is best done after a warm bath or shower when the skin of the scrotum is relaxed. You should look for any changes in appearance and then carefully examine each testicle by rolling it between the fingers and thumbs of both hands to check for any lumps. While many lumps are benign, a high percentage of testicular masses are cancerous. It is critical to meet with a urologist to get an accurate diagnosis.