

Testicular Cancer: Stages



What does the stage of a cancer mean?

The stage of a cancer is how much and how far the cancer has spread in your body. Your healthcare provider uses exams and tests to find out the size of the cancer and where it is. They can also see if the cancer has spread to nearby areas, and if it has spread to other parts of your body. The stage of a cancer is one of the most important things to know when deciding how to treat the cancer.

The TNM system

The most commonly used system to stage testicular cancer is the TNM system from the American Joint Committee on Cancer. Ask your healthcare provider to explain the stage of your cancer to you in a way you can understand.

The first step is to decide the value for each part of the TNM system. Here's what the letters stand for in the TNM system:

- The **T** tells how far the main **tumor** has spread into the testicles and nearby tissue. The size of the tumor is measured in centimeters (cm). The measurement is determined after surgery.
- The **N** tells if the lymph **nodes** in the area of your original tumor have cancer in them. The nearby (regional) lymph nodes for testicular cancer are called the retroperitoneal lymph nodes.
- The **M** tells if your cancer has spread (**metastasized**) to other organs in the body.

In addition, the letter **S** shows the **serum** levels of certain tumor markers in your body. Some testicular cancer cells make the markers AFP, HCG, and LDH. Blood tests to measure the levels of these markers are done before and after surgery to remove the testicle. The marker levels after surgery are used for staging purposes. Levels will be checked before and after treatment to watch for changes. When chemotherapy is used for metastatic cancer, the marker levels on the first day of chemotherapy are the values recorded for establishing the risk group (see below).

Numbers and letters after each of these letters provide more details about each of these factors. There's another value that can be assigned: X. This means the provider doesn't have enough information to tell the extent of the main tumor (TX), or if the lymph nodes have cancer cells in them (NX).

What are the stage groupings of testicular cancer?

Stage groupings are determined by combining the T, N, and M values from the TNM system. These groupings give an overall description of your cancer. A stage grouping can have a value of 0 or of a Roman numeral I through IV (1 through 4). The higher the number, the more advanced the cancer is. Letters can be used after the Roman numeral to give more details. Testicular cancer staging does not have a Stage IV.

Testicular cancer staging includes the traits of the main tumor (tested after surgery). When the T category is determined after surgery, it is called the pathologic T stage (pT). Staging also considers if the cancer has spread to the lymph nodes (N), or to the lungs or other organs (M). The staging system also takes into account the blood level of your tumor markers (S).

For germ cell testicular cancers that have spread outside the testicles (later stage cancers), healthcare providers may also use **risk groups** (good, intermediate, and poor risk). These risk groups depend on whether the cancer is a seminoma or nonseminoma (main types of germ cell tumors). They also depend on the extent and location of the cancer, and serum tumor marker levels. Based on your risk group, your providers can decide on the best treatment choices for you.

These are the stage groupings of testicular cancer and what they mean:

Stage 0. This is a cancer that has not spread beyond the tiny tubules where it first started. This is also called **carcinoma in situ** or germ cell neoplasia in situ. The tumor marker levels are normal. It can be written as pTis

(for in situ), N0, M0, S0.

Stage I. For this stage, the main tumor can be any level (pT1, 2, 3, or 4). The cancer has not spread to the lymph nodes (N0) or distant parts of the body (M0). Serum tumor marker levels are not available (SX). This stage is divided into the following:

- **Stage IA.** Cancer is only in the testicle and has not invaded the lymphatic or blood vessels in the testicle (pT1). The cancer has not spread to lymph nodes (N0) or distant sites (M0). Serum tumor markers are normal after the cancerous testicle is removed (S0).
- **Stage IB.** The cancer may have grown further into or outside of the testicle (pT2, 3, or 4). But the cancer has not spread to lymph nodes (N0) or distant sites (M0). Serum tumor markers are normal after the cancerous testicle is removed (S0).
- **Stage IS.** The cancer may or may not have grown outside of the testicle, or this is unknown (any pT or TX). But the cancer has not spread to lymph nodes (N0) or distant sites (M0). Serum tumor markers are abnormal, even after the cancerous testicle is removed (S1, 2, or 3).

Stage II. The cancer may or may not have grown outside of the testicle, or this is unknown (any pT or TX). The cancer has spread to 1 or more nearby lymph nodes (N1, 2, or 3). But it has not spread to lymph nodes in other parts of the body or distant organs (M0). Serum tumors markers are not available (SX). This stage is divided into the following:

- **Stage IIA.** The cancer may or may not have grown outside of the testicle, or this is unknown (any pT or TX). The cancer has spread to 5 or fewer nearby lymph nodes. None of these is larger than 2 centimeters (cm) across (N1). The cancer has not spread to lymph nodes in other parts of the body or distant organs (M0). Serum tumor markers are either normal (S0) or slightly higher (S1) after the cancerous testicle is removed.
- **Stage IIB.** The cancer may or may not have grown outside of the testicle, or this is unknown (any pT or TX). The cancer has spread to at least 1 nearby lymph node that's 2 cm to 5 cm across, or it's grown outside of a lymph node. Or it has spread to more than 5 lymph nodes (N2) with all lymph nodes 5 cm or smaller. The cancer has not spread to lymph nodes in other parts of the body or distant organs (M0). Serum tumor markers are either normal (S0) or slightly higher (S1) after the cancerous testicle is removed.
- **Stage IIC.** The cancer may or may not have grown outside of the testicle, or this is unknown (any pT or TX). The cancer has spread to nearby lymph nodes. At least 1 of these is larger than 5 cm across (N3). The cancer has not spread to lymph nodes in other parts of the body or distant organs (M0). Serum tumor markers are either normal (S0) or slightly higher (S1) after the cancerous testicle is removed.

Stage III. The cancer may or may not have grown outside of the testicle or this is unknown (any pT or TX) and may or may not have reached nearby lymph nodes (any N). The cancer has spread to lymph nodes in other parts of the body or to distant organs (M1). Serum tumor marker levels are not known (SX). This stage is divided into the following:

- **Stage IIIA.** The cancer may or may not have grown outside of the testicle or this is unknown (any pT or TX) and may or may not have reached nearby lymph nodes (any N). The cancer has spread to lymph nodes in other parts of the body or to the lungs (M1a). Serum tumor markers are either normal (S0) or slightly higher (S1) after the cancerous testicle is removed.
- **Stage IIIB.** The cancer may or may not have grown outside of the testicle or this is unknown (any pT or TX), and one of these is true:
 - The cancer has spread to nearby lymph nodes (N1, 2, or 3). It has not spread to lymph nodes in other parts of the body or distant organs (M0). At least 1 serum tumor marker is much higher (S2) after the cancerous testicle is removed.
 - The cancer may or may not have spread to nearby lymph nodes (any N). It has spread to lymph nodes in other parts of the body or to the lungs (M1a). At least 1 serum tumor marker is much higher (S2) after the cancerous testicle is removed.
- **Stage IIIC.** The cancer may or may not have grown outside of the testicle or this is unknown (any pT or TX), and one of these is true:

- The cancer has spread to nearby lymph nodes (N1, 2, or 3). But it hasn't spread to other parts of the body (M0). At least 1 serum tumor marker is much higher than normal (S3) after the cancerous testicle is removed.
- The cancer may or may not have spread to nearby lymph nodes (any N). It has spread to lymph nodes in other parts of the body or to the lungs (M1a). At least 1 serum tumor marker is much higher than normal (S3) after the cancerous testicle is removed.
- The cancer may or may not have spread to nearby lymph nodes (any N). It has spread to distant organs other than the lungs, such as the liver, brain, or bones (M1b). Serum tumor markers may or may not be higher than normal (any S) after the cancerous testicle is removed.

Talking with your healthcare provider

Once your cancer is staged, talk with your healthcare provider about what the stage means for you. Make sure to ask questions and talk about your concerns.

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