

Testicular Cancer: Surgery



Surgery is the first treatment for most men with testicular cancer. Different kinds of surgery may be done. The type you have depends on the type of testicular cancer, how much it has spread, and other factors. Sometimes other treatments, such as chemotherapy (chemo) or radiation, are needed after surgery.

When might surgery be used for testicular cancer?

Most men with testicular cancer will have surgery to remove the testicle with the cancer. This is often how the diagnosis of testicular cancer is confirmed.

If the cancer has spread to the retroperitoneal lymph nodes in the back of the belly (abdomen), they may also be removed. This is often done as a separate surgery. The decision to remove lymph nodes is based on the type of testicular cancer and stage of your cancer.

Types of surgery for testicular cancer

There are two main types of surgery to treat testicular cancer:

Radical inguinal orchiectomy

For this surgery, the surgeon makes a cut just above your pubic area. The testicle with cancer is then removed through the inguinal canal. The surgeon then cuts the spermatic cord. This cord connects the testicle to your abdomen. The surgeon pays careful attention to keep from spreading the cancer cells during the process. If you have cancer in both of your testicles, the surgeon removes them both.

Your scrotum is not removed. If you wish, you can have an artificial (prosthetic) testicle put in at a later time.

Retroperitoneal lymph node dissection (RPLND)

This surgery is used for the type of germ cell testicular cancer called nonseminoma. It is not usually done to treat the seminoma type of cancer. This surgery removes the lymph nodes in the back of the abdomen. It's done if the cancer has spread to these nodes. This surgery is most often done as a separate surgery at a later date. But sometimes it can be done at the same time the testicle with the cancer is removed. A nerve-sparing method is often used to prevent a problem with ejaculation after surgery.

The standard surgical method for RPLND is done through one long cut (incision) in the middle of the abdomen. Another method, called laparoscopic surgery, is used by trained surgeons in centers with a lot of experience. It is done through several smaller incisions. Long, thin surgical tools are put in through them to take out the lymph nodes. The surgeon also uses a tiny video camera that shows the area on a screen. The standard method with a long incision might have a longer recovery time. But healthcare providers aren't sure that the laparoscopic method is as safe in removing all the lymph nodes with cancer in them. This less invasive method is promising but is still being closely studied. It's not a standard surgery used at this time.

An RPLND is a complex surgery. It should be done by a skilled surgeon who has a lot of experience with this type of surgery.

Risks and possible side effects of surgery

All surgery has risks. Some of the risks of any major surgery include:

- Pain
- Healing problems
- Infection

- Inability to drive, lift, or do other daily activities until you heal
- Reactions to anesthesia (the medicines used to make you sleep and not feel pain during surgery)
- Excess bleeding
- Blood clots in the legs or lungs
- Damage to nearby nerves, blood vessels, and organs

Here are some other possible side effects that men with testicular cancer can have after surgery. Ask your healthcare provider which ones are most likely to happen to you:

- **Fertility issues.** If you might want to have children in the future, talk with your healthcare provider about banking sperm before surgery if you have only one testicle or both testicles are to be removed. If both of your testicles are removed, you will no longer be able to make sperm and will be infertile. If only one testicle is removed, the remaining testicle can still make sperm and hormones. But sperm banking may be recommended before chemotherapy, radiation therapy, or RPLND.
- **Inability to ejaculate.** Damage to nerves can leave you unable to ejaculate. If nerves are damaged, the semen goes backwards into the bladder. This is called retrograde ejaculation. It's most common in men who have had an RPLND. This surgery doesn't affect your ability to have orgasms or erections, but no semen comes out. This means you will be infertile. A nerve-sparing surgical method can help prevent this side effect.
- **Being unhappy with the changed look of your scrotum.** If this is an issue, talk with your healthcare provider about testicular implants. An implant can fill your scrotum and have much the same weight and texture as your normal testicle.
- **Hormone changes.** When both testicles are removed your testosterone levels drop. This can lead to mood changes, depression, or anxiety. Low testosterone can also cause hot flashes, decreased sex drive, and loss of muscle and bone mass. Blood tests can be done to measure your testosterone levels. Gels, patches, or shots can be used to keep your levels in the normal range.

The side effects of surgery can't be fully prevented. It's important to know what to expect. Your healthcare team can talk with you about what can be done to make your recovery from surgery as smooth as possible.

Getting ready for your surgery

Before you go for surgery, you'll talk with your surgeon about what it will be like and what will be done. This is a good time to ask any questions you have and discuss any concerns. You might ask if the surgery will leave scars and what those scars will look like. If you want to have children in the future, you should talk about how the surgery could affect your fertility. Many men decide to save some sperm before treatment for testicular cancer. This is called sperm banking. If the surgery makes you infertile, you and your partner could use this sperm to try to have a child. Discuss this choice with your healthcare provider if it is a concern.

After you've discussed all the details with the surgeon, you'll sign a consent form. This gives the surgeon permission to do the surgery.

You will also talk with an anesthesiologist or a nurse anesthetist. This is the healthcare provider who will give you general anesthesia. This is the medicine that keeps you from feeling pain and makes you sleep during surgery. This provider watches you closely during surgery to keep you safe. They will ask about your health history and your medicines. Let them know if you had difficulty with anesthesia in the past.

What to expect during surgery

On the day of surgery, you'll be taken into the operating room. Your healthcare team will include the anesthesiologist, the surgeon, and nurses.

During a typical surgery:

- You'll be moved onto the operating table.

- An IV (intravenous) line will be put into your hand or arm. Sometimes the IV is started in the preoperative area instead.
- The staff will put ECG wires with small, sticky pads on your chest. These are to keep track of your heart rate. A blood pressure cuff will be put on your arm.
- You'll get the anesthetic through the IV and will fall asleep.
- What's removed during surgery and where your incisions are will depend on the type of surgery you have.

What to expect after surgery

You'll wake up in a recovery room. There you'll be watched closely and given medicine to treat pain. You may be able to go home the same day. Or you might have to stay in the hospital overnight.

If you had an orchiectomy, you may be told to keep ice on your scrotum and wear an athletic supporter to keep the swelling down for a few days. You might need to stay fairly inactive for a few days after you leave the hospital. But you can slowly return to most activities.

You shouldn't lift heavy things for several weeks. Always follow the instructions you get from your healthcare providers.

After surgery, you may feel weak or tired for a while. The amount of time it takes to recover from surgery is different for each person. But you might not feel like yourself for a while. You likely won't be able to drive for a few weeks, as directed by your healthcare providers.

After surgery, you may have chemotherapy or radiation therapy to reduce the chance that any remaining cancer cells will spread. These are called adjuvant therapies. The need for more treatment will be planned before your surgery, so you will know what to expect.

When to get medical care

Talk to your healthcare provider about problems you should watch for. Call right away if you have any of the following:

- Fever of 100.4°F (38°C) or higher, or as advised by your healthcare provider
- Chills
- Cough or shortness of breath
- Rapid, irregular heartbeat; new chest pain
- Signs of infection around the incision, such as redness, drainage, warmth, and pain
- Drainage from the incision site
- Incision opens up or the edges pull apart
- Any abnormal bleeding or bleeding that soaks the bandage
- Trouble passing urine or changes in how your urine looks or smells
- Pain, redness, swelling, or warmth in an arm or leg

Know what problems to watch for and when you need to call your healthcare provider. Also be sure you know what number to call to get help after office hours and on weekends and holidays.

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