



Canadian
Cancer
Society

Testicular Cancer

Understanding your diagnosis



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When you first hear that you have cancer, you may feel alone and afraid. You may be overwhelmed by the large amount of information you have to take in and the decisions you need to make.

“ *All I could hear was ‘cancer.’ I heard my doctor say something like, ‘We’re going to start your treatment as soon as possible.’ I didn’t hear one word after that.* ”

The introductory information in this brochure can help you and your family take the first steps in learning about testicular cancer. A better understanding may give you a feeling of control and help you work with your healthcare team to choose the best care for you.

For more information

You can find more in-depth information about testicular cancer on cancer.ca. Or call us at 1-888-939-3333 to learn more about cancer, diagnosis, treatment, support and services near you.

What is cancer?

Cancer is a disease that starts in our cells. Our bodies are made up of trillions of cells, grouped together to form tissues and organs such as muscles and bones, the lungs and the liver. Genes inside each cell tell it to grow, work, divide and die. Normally, our cells follow these instructions and we remain healthy.

But sometimes the instructions in some cells get mixed up and the cells behave abnormally. These cells start to grow and divide uncontrollably. After a while, a group of abnormal cells forms a lump, or tumour.

Tumours can be either non-cancerous (benign) or cancerous (malignant). Non-cancerous tumour cells stay in one place in the body and are not usually life-threatening. Cancerous tumour cells can grow into nearby tissues and spread to other parts of the body. It's important to find and treat cancerous tumours as early as possible. In most cases, finding cancer early increases the chances of successful treatment.

Cancer cells that spread to other parts of the body are called metastases. Often, the first sign that a tumour has spread (metastasized) is swelling of nearby lymph nodes, but cancer can spread to almost any part of the body.

Cancers are named after the part of the body where they start. For example, cancer that starts in the testicles but spreads to the lung is called testicular cancer with lung metastases.

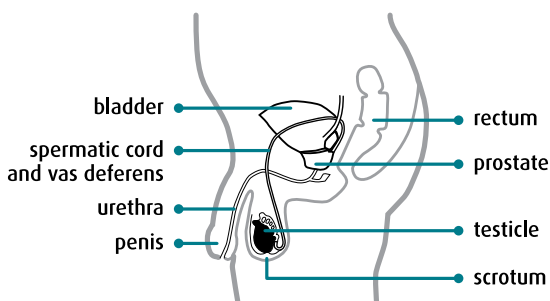
What is testicular cancer?

Testicular cancer starts in the cells of a testicle. The testicles are part of a man's reproductive system. These 2 egg-shaped organs hang below the penis in a sac of skin called the scrotum. The testicles are held in the scrotum by the spermatic cord.

Testicles make male sex hormones (mostly testosterone) and sperm. Sperm forms in germ cells inside the testicles. The spermatic cord contains the vas deferens (a tube that carries sperm out of each testicle), blood vessels, lymph vessels and nerves.

Most testicular cancers start in the germ cells and are called germ cell tumours. There are 2 main types of germ cell tumours - seminomas and non-seminomas. Each type grows differently and is treated differently. Both types can be treated successfully.

Male Reproductive System



Diagnosing testicular cancer

Your doctor may suspect you have testicular cancer after hearing about your symptoms, taking your medical history and doing a physical exam. To find out for sure, your doctor will arrange special tests. These tests may also be used to help plan treatment.

Symptoms: The most common signs and symptoms of testicular cancer include:

- painless lump in a testicle
- swelling of a testicle
- pain or discomfort in a testicle or in the scrotum
- feeling of heaviness in the lower abdomen (stomach area) or scrotum
- buildup of fluid in the scrotum
- enlarged lymph nodes in the neck

The process of diagnosing cancer may seem long and frustrating. But other health problems can cause some of the same symptoms. The doctor has to make sure there are no other possible reasons for a health problem.

Your doctor will do one or more of the following tests to make a diagnosis.

Ultrasound: An ultrasound uses sound waves to make pictures of your testicles and scrotum. It is used to confirm that there is a tumour in the testicle and to check its size and shape, along with where it is and how solid it is (density).

Blood tests: Blood is taken to see if the different types of blood cells are normal in number and how they look. Blood tests can also show how well your organs are working and may suggest whether you have cancer and if it has spread.

Blood tests can also show certain substances in the blood called tumour markers. If the level of these substances is higher than normal, it can be a sign of cancer. For testicular cancer, there are 3 tumour markers:

- AFP (alpha-fetoprotein)
- HCG (human chorionic gonadotropin)
- LDH (lactate dehydrogenase)

Removal of the testicle: If doctors believe there is cancer based on test results, they will remove the entire testicle and spermatic cord to make a definite diagnosis. This surgery is called an orchiectomy. All of the tissue removed during the orchiectomy is checked under a microscope. If there are cancer cells, they will be studied to find out what type of cancer it is.

The surgery is done under a general anesthetic (you will be unconscious). You can usually go home the same day. With the healthy testicle that remains, you can still have an erection and produce sperm.

Doctors will remove the testicle to make a diagnosis instead of doing a needle biopsy because a biopsy could spread the cancer to the scrotum and lymph nodes. A needle biopsy uses a needle to remove a sample of tissue from the testicle to find out if a lump is cancer.

Further testing: Your doctor may order more tests to find out if the cancer has spread and to help plan your treatment. The healthcare team may use imaging tests, such as x-rays, CT scans, bone scans or MRIs, to look at your tissues, organs and bones in more detail.

Will I be OK?

Most people with cancer want to know what to expect. Can they be cured?

A prognosis is your doctor's best estimate of how cancer will affect you and how it will respond to treatment. It looks at many factors including:

- the type and stage of cancer
- the location of the tumour and whether it has spread
- your age and overall health

Even with all this information, it can still be very hard for your doctor to say exactly what will happen. Each person's situation is different.

Your doctor is the only person who can give a prognosis. Ask your doctor about the factors that affect your prognosis and what they mean for you.

Staging

Once a diagnosis of cancer has been made, the cancer is given a stage. This information helps you and your healthcare team choose the best treatment for you.

The following stages for testicular cancer describe the size of the tumour and if it has spread.*

Stage	Description
0	Abnormal cells are found only in the tiny tubes where the sperm cells form. This is sometimes called a precancerous condition or carcinoma in situ.
1	Cancer is found in the testicle. It may be in the spermatic cord, the scrotum or lymph or blood vessels in the testicle. The level of one or more of the blood tumour markers may be above normal.
2	Cancer cells are in the testicle. Cancer may have spread to the spermatic cord, the scrotum or lymph or blood vessels. There may be cancer in the lymph nodes in the abdomen. The level of one or more blood tumour markers may be slightly high.
3	Cancer is found in the testicle. It may have spread to the spermatic cord, the scrotum or lymph or blood vessels. The cancer may have spread to the lymph nodes in the abdomen. The level of one or more blood tumour markers may be high. Cancer cells may have spread to distant lymph nodes or distant parts of the body, such as the lungs.

* This table summarizes the stages of testicular cancer according to the Union for International Cancer Control (UICC). For more in-depth information, visit cancer.ca.

Treatments for testicular cancer

You may be anxious about your cancer diagnosis, but testicular cancer can be cured in most men. Your healthcare team considers your general health and the type and stage of the cancer to recommend the best treatments for you. You'll work together with your healthcare team to make the final treatment choices. Talk to them if you have questions or concerns.

Talk to your doctor about fertility options before starting treatment

Before you start any treatment for testicular cancer, talk to your doctor about how it might affect your ability to have children. Ask about sperm banking. Sperm banking means freezing your sperm before treatment so that it can be used in the future.

For testicular cancer, you might receive one or more of the following treatments.

Surgery: Surgery is the first treatment for testicular cancer. The surgeon removes the entire testicle (orchiectomy). This is usually done as part of the diagnosis. Some lymph nodes at the back of the abdomen may also be removed.

After surgery, you may have some pain or nausea and vomiting. These side effects are usually temporary and can be controlled with medicines.

Chemotherapy: Chemotherapy uses drugs to treat cancer. Chemotherapy drugs used for testicular cancer are injected with a needle into a vein. They damage cancer cells, but they also damage some healthy cells. Although healthy cells can recover over time, you may experience side effects from your treatment, like nausea, vomiting, a sore mouth or loss of appetite.

If a standard dose of chemotherapy does not work and the cancer comes back, a higher dose of chemotherapy followed by a stem cell transplant may be used. The stem cell transplant uses stem cells from your own blood to replace the ones damaged or destroyed by the high-dose chemotherapy.

Radiation therapy: In external beam radiation therapy, a large machine is used to carefully aim a beam of radiation at the area to be treated, usually lymph nodes in the back of the abdomen. Radiation works best for seminomas. The radiation damages cells that are in the path of the beam – both cancer cells and normal cells. During radiation therapy, the remaining healthy testicle is shielded to protect it from damage.

With radiation, you may feel more tired than usual. You may also have some diarrhea or nausea and vomiting.

For more information on treatment, you may want to read our booklets *Chemotherapy and Other Drug Therapies* and *Radiation Therapy*.

Watchful waiting: Watchful waiting (also called active surveillance) is an option for some men with testicular cancer. It begins after surgery. Watchful waiting means your healthcare team will watch you closely. You will only be offered other treatment if signs and symptoms of cancer appear or change.

Clinical trials: Clinical trials test new ways to treat cancer, such as new drugs, types of treatments or combinations of treatments. They provide information about the safety and effectiveness of new approaches to see if they should become widely available. Ask your doctor if any clinical trials are available that could be a treatment option for you. You may benefit and so may future cancer patients.

Our brochure *Clinical Trials* has more information, including how to find a clinical trial.

Complementary therapies: Complementary therapies – for example, massage therapy or acupuncture – are used *together with* conventional cancer treatments, often to help ease tension, stress and other side effects of treatment. They don't treat the cancer itself.

If you're thinking about using a complementary therapy, learn as much as you can about the therapy and talk to your healthcare team. It's possible that the therapy might affect other treatments or test results.

Our booklet *Complementary Therapies* has more information.

Unlike complementary therapies, alternative therapies are used *instead of* conventional treatments. Alternative therapies haven't been tested enough for safety or effectiveness. Using alternative treatments alone for cancer may have serious health effects. Talk to your healthcare team before you try an alternative therapy.

Side effects of treatments

Some cancer treatments cause side effects, such as fatigue, hair loss or nausea. Because treatments affect everyone differently, it's hard to predict which side effects - if any - you may have.

Side effects can often be well managed and even prevented. If you're worried about side effects, tell your healthcare team about your concerns and ask questions. They can tell you which side effects you should report right away and which ones can wait until your next visit.

If you notice any side effects or symptoms that you didn't expect, talk to a member of your healthcare team as soon as possible. They'll help you get the care and information you need.

Living with cancer

Many sources of help are available for people with cancer and their caregivers.

Our booklet *Coping When You Have Cancer* has more detailed information and resources.

Your healthcare team: If you need practical help or emotional support, members of your healthcare team may be able to suggest services in your community or refer you to cancer centre staff or mental health professionals.

Family and friends: People closest to you can be very supportive. Accept offers of help. When someone says, “Let me know how I can help,” tell them what they can do. Maybe they can run errands, cook a meal or drive you to your doctor’s office.

People who’ve had a similar experience: Talking with and learning from men who’ve had similar experiences can be helpful. Consider visiting a support group or talking with a cancer survivor in person, over the telephone or online. Try more than one option to see which one works best for you.

Yourself: Coping well with cancer doesn’t mean that you have to be happy or cheerful all the time. But it can mean looking after yourself by finding relaxing, enjoyable activities that refresh you mentally, spiritually or physically. Take some time to find ways to cope. You may also want to talk to a counsellor for more help.

Talking to someone who's been there

If you would like to talk to someone who's had a similar cancer experience, you can connect by phone with a trained volunteer who will listen, provide hope and suggest ideas for coping – all from the shared perspective of someone who's been there.

Register for this free program at match.cancer.ca or call us at 1-888-939-3333.

Want to connect with someone online?

If you'd like to join our online community, visit CancerConnection.ca. You can read news, join discussion groups, get support and help others at the same time. You'll find caring, supportive people there.

After treatment

Follow-up care helps you and your healthcare team follow your progress and your recovery from treatment. At first, you might meet with one of the specialists from your healthcare team. Later on, it may be your family doctor.

The schedule of follow-up visits is different for each person. You might see your doctor more often in the first few years after treatment and less often after that. You should tell your doctor right away about new symptoms or symptoms that don't go away, without waiting for your next scheduled visit.

The end of cancer treatment may bring mixed emotions. You may be glad the treatments are over and look forward to returning to your normal activities. But you could feel anxious as well. If you're worried about your treatment ending, talk to your healthcare team. They can help you through this transition period.

Self-esteem, body image and sexuality: It's natural to be concerned about the effects of testicular cancer and its treatment on your self-esteem, body image and sexuality. You may be worried about how your body looks after treatment, about having sex with a partner or that you may be rejected. It may help to talk about these feelings with someone you trust. Your doctor can also refer you to specialists and counsellors who can help you with the emotional side effects of testicular cancer treatment.

If you had a testicle removed, you may wish to talk to your doctor about surgery to put a testicular prosthesis, or artificial testicle, in the scrotum. A testicular prosthesis is filled with silicone gel or saline and matches the look and feel of the other testicle.

What causes testicular cancer?

Testicular cancer is the most common cancer in young men aged 15–29. It occurs more often in Caucasian men than Asian or African men. There is no single cause of testicular cancer, but some factors increase the risk of developing it. Some men can develop cancer without any risk factors, while others have some of these factors but do not get cancer.

Risk factors for testicular cancer include:

- undescended testicle (testicle has not moved down into the scrotum)
- family or personal history of testicular cancer
- Klinefelter syndrome (a rare genetic condition)

Canadian Cancer Society

We're here for you.

When you have questions about treatment, diagnosis, care or services, we will help you find answers.

Call our toll-free number 1 888 939-3333.



Ask a trained cancer information specialist your questions about cancer. Call us or email info@cis.cancer.ca.



Connect with people online to join discussions, get support and help others. Visit CancerConnection.ca.



Browse Canada's most trusted online source of information on all types of cancer. Visit cancer.ca.

Our services are free and confidential. Many are available in other languages through interpreters.

Tell us what you think

Email cancerinfo@cancer.ca and tell us how we can make this publication better.



What we do

The Canadian Cancer Society fights cancer by:

- doing everything we can to prevent cancer
- funding research to outsmart cancer
- empowering, informing and supporting Canadians living with cancer
- advocating for public policies to improve the health of Canadians
- rallying Canadians to get involved in the fight against cancer

Contact us for up-to-date information about cancer and our services or to make a donation.



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