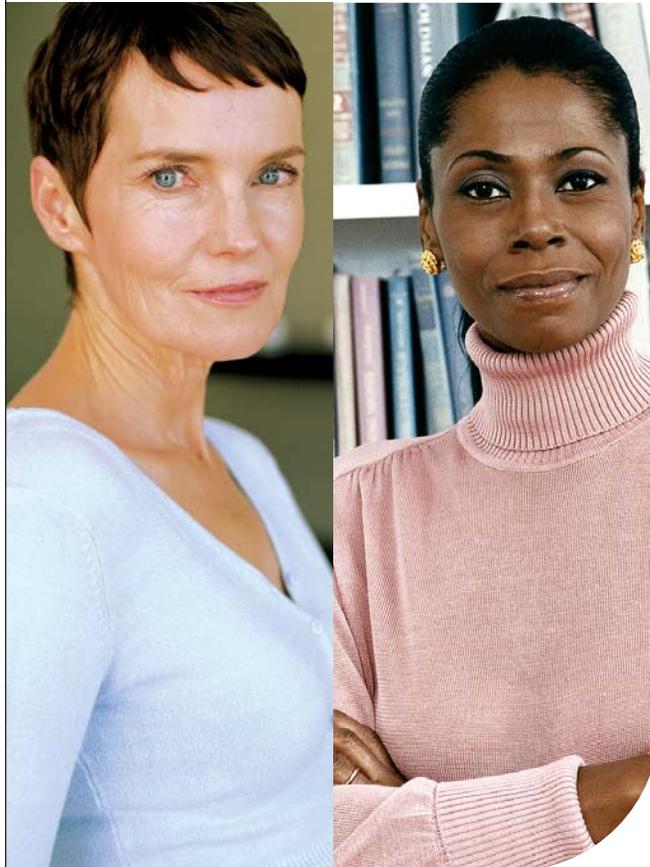




Canadian Cancer Society Société canadienne du cancer

Cervical Cancer

Understanding your diagnosis



Let's Make Cancer History

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Cervical Cancer

Understanding your diagnosis

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 will have to take in and the decisions you will need to make.

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

What is cancer?

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

But sometimes the instructions in some cells get mixed up, causing them to behave abnormally. These cells grow and divide uncontrollably. After a while, groups of abnormal cells form lumps, or tumours.

Tumours can be either *benign* (non-cancerous) or *malignant* (cancerous). Benign tumour cells stay in one place in the body and are not usually life-threatening.

Malignant tumour cells are able to invade nearby tissues and spread to other parts of the body. Cancer cells that spread to other parts of the body are called *metastases*.

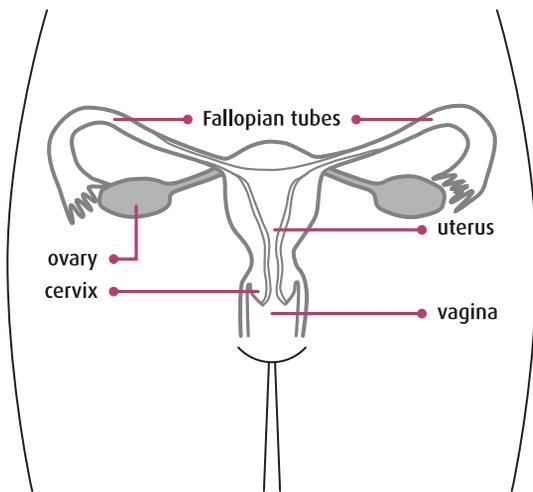
The first sign that a malignant tumour has spread (metastasized) is often swelling of nearby lymph nodes, but cancer can spread to almost any part of the body. It is important to find and treat malignant tumours as early as possible.

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

What is cervical cancer?

Cervical cancer starts in the cells of the cervix. The cervix is the narrow, lower part of the uterus (or womb). It is the passageway that connects the uterus to the vagina.

The cervix is part of a woman's reproductive system. It makes mucus that helps sperm move from the vagina into the uterus or keeps sperm from entering the uterus. Every month during your menstrual period blood flows from the uterus through the cervix into the vagina. During pregnancy, the cervix is closed to keep the baby inside the uterus. During childbirth, the cervix opens (dilates) so that the baby can pass through the vagina.



Before cervical cancer develops, the cells of the cervix start to change and become abnormal. These abnormal cells are *precancerous*, meaning that they are not cancer. Precancerous changes to the cervix are called *dysplasia of the cervix* (or *cervical dysplasia*).

Dysplasia of the cervix is not cancer. It is a common precancerous change that can develop into cancer if it isn't treated. It is important to know that most women with dysplasia do not develop cancer.

Causes of cervical cancer

There is no single cause of cervical cancer, but some factors increase the risk of developing it. The main risk factor for developing cervical cancer is infection of the cervix with a human papillomavirus (HPV).

HPV is a group of more than 100 types of viruses. Some types of HPV can be passed easily from person to person through sexual contact. HPV infections are common and usually go away without treatment because the immune system gets rid of the virus. However, certain types of sexually transmitted HPV can cause changes to cells in the cervix that may lead to cervical cancer.

Other factors that appear to increase the risk of developing cervical cancer are:

- not having regular Pap tests (a test used to detect both dysplasia and cervical cancer)
- becoming sexually active at a young age
- having many sexual partners or a sexual partner who has had many partners
- smoking
- having a weakened immune system (for example, from taking drugs after an organ transplant or having a disease such as AIDS)

- using birth control pills for a long time
- giving birth to many children
- having taken diethylstilbestrol (DES) or being the daughter of a mother who took DES (a form of estrogen that was used between 1940 and 1971 to treat women with certain problems during pregnancy, such as miscarriages)

Some women develop cervical cancer without any of these risk factors.

Symptoms of cervical cancer

Cervical cancer in its early or precancerous stages often does not cause any symptoms at all. That is why it is important for women to have regular Pap tests.

You may notice one or more of these symptoms:

- abnormal bleeding from the vagina
 - > bleeding or spotting between regular menstrual periods
 - > bleeding after sex
 - > menstrual periods that last longer and are heavier than before
 - > bleeding after menopause
- more discharge from the vagina than normal
- pain in the pelvis or lower back
- pain during sexual intercourse

Often, these symptoms are caused by other health problems or infections, not cancer. Testing is needed to make a diagnosis.

Diagnosing cervical cancer

Your doctor most likely suspected you had cervical cancer after talking with you about your health and completing a physical examination. This will include an examination of your abdomen and pelvis. If your Pap test results suggest precancerous cells or cancer of the cervix, your doctor will arrange more tests to confirm the diagnosis. These tests may also be used to “stage” and “grade” the cancer. You may have one or more of the following tests.

Colposcopy: A colposcopy is done in much the same way as a Pap test. A speculum (a clear plastic or metal device) is first inserted into the vagina to hold the vaginal walls open. Then your doctor uses a special instrument called a *colposcope* to look at the inside surface of the cervix and vagina. A colposcope is like a magnifying lens with a light on the end. A liquid may be dabbed onto the cervix to make the abnormal areas show up more clearly. A sample of tissue from the cervix is often taken during a colposcopy. This is called a *biopsy*. The biopsy may be uncomfortable, but it takes only a few minutes. You may have mild cramping similar to menstrual pain and some light vaginal bleeding for a few days afterwards.

Biopsy: A biopsy is usually necessary to make a definite diagnosis of cancer. Cells are removed from the cervix and checked under a microscope. If the cells are cancerous, they

may be studied further to see how fast they are growing. There are several ways to do a biopsy.

- A *colposcopic biopsy* is done during a colposcopy. Biopsy forceps are used to remove small amounts of tissue from suspicious-looking areas, mainly in the lower part of the cervix. A local anesthetic (freezing) may be used to numb the cervix.
- *Endocervical curettage* may also be done during a colposcopy at the same time as a colposcopic biopsy to find out if there are precancerous cell changes or cancer cells in the upper part of the cervix. A narrow instrument shaped like a spoon, called a *curette*, is inserted into the upper part of the cervix leading into the uterus. Some of the tissue lining the upper cervix is removed by gently scraping it with the curette. A local anesthetic may be used to numb the cervix.
- A *cone biopsy* removes a cone-shaped piece of tissue from the cervix. A cone biopsy is done if a deeper sample of tissue is needed. The cone-shaped piece of cervix may be removed using a thin wire loop heated by an electrical current (LEEP), a surgical scalpel (*cold-knife excision*) or a laser (*laser excision*). A colposcope is used to help your doctor to view the area and guide the tools used to perform the biopsy. A cone biopsy requires a general anesthetic (you will be unconscious). A cone biopsy may cause mild cramping, discomfort and some bleeding that may continue for 2 to 4

weeks after the procedure. For several weeks after a cone biopsy, you shouldn't have sex or insert anything into the vagina (such as tampons or a vaginal douche). Sometimes all of the cancer can be completely removed by a cone biopsy and no further treatment is necessary.

Blood tests: Blood is taken and studied to see if the different types of blood cells are normal in number and appearance. The results show how well your organs are working and may suggest whether or not you have cancer. Your red blood cell count may also be checked to see if you have anemia (low red blood cell count) from cervical bleeding.

Imaging studies: Imaging studies allow tissues, organs and bones to be looked at in more detail. Using x-rays, ultrasounds, CT scans, MRIs or bone scans, your healthcare team can get a picture of the size of the tumour and see if it has spread. These tests are usually painless and do not require an anesthetic.

Staging and grading

Once a definite diagnosis of cancer has been made and your healthcare team has the information it needs, the cancer will be given a stage and a grade.

The cancer stage describes the tumour size and tells whether it has spread beyond the place where it started to grow.

For cervical cancer, there are five stages.

Stage	Description
0	Cancer is found only in the top layer of cells in the tissue that lines the cervix. Stage 0 is also called carcinoma <i>in situ</i> .
1	Cancer is found only in the cervix, beneath the top layer of cells.
2	Cancer has spread to nearby tissues such as the upper part of the vagina or tissues next to the cervix.
3	Cancer has spread to the lower part of the vagina or the pelvic wall, or blocks the ureter (the tube that carries urine from a kidney to the bladder). It may also have spread to nearby lymph nodes.
4	The cancer has spread to the bladder, rectum or other distant parts of the body.

To find out the grade of a tumour, the biopsy sample is examined under a microscope. A grade is given based on how the cancer cells look and behave compared with normal cells. This can give your healthcare team an idea of how quickly the cancer may be growing. There are three grades.

Grade	Description
1	Low grade – slow growing, less likely to spread
2	Moderate grade
3	High grade – tend to grow quickly, more likely to spread

It is important to know the stage and grade of the cancer. This information helps you and your healthcare team choose the best treatment for you.

Treatments for cervical cancer

Your healthcare team will consider your general health and the type, stage and grade of the cancer to recommend what treatments will be best for you. Your healthcare team will help you make the final treatment choices. Talk to them if you have questions or concerns.

Treatments affect everyone in different ways. It's hard to predict which side effects you will have. Your healthcare team will tell you what to expect with each treatment. They will also let you know what side effects you should report right away and which ones you can wait to tell them about at your next appointment. If you notice any side effects or symptoms that you did not expect, talk to a member of your healthcare team as soon as possible.

Patients often worry about the side effects of treatment. However, side effects can often be well managed and even prevented with

medicine. Be open with your healthcare team. Tell them your concerns and ask questions. They will help you get the care and information you need.

Talk to your doctor about fertility options before starting treatment

Some treatments may affect your ability to have children. If you are of child-bearing age, your treatment choice may depend on whether you would like to become pregnant in the future. You should talk to your doctor about this before you start treatment.

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

Surgery: A decision to have surgery depends on the tumour's location and other factors, such as your age, your desire to have children in the future, your overall health and any treatment you have already had. During the operation, all or part of the tumour and some healthy tissue around the tumour are removed. Surgery is done under a local or general anesthetic and you may stay in the hospital for several days after the surgery.

In the very earliest stages of cervical cancer, the removal of tissue during a cone biopsy may be all the treatment necessary.

In other situations it may be necessary to remove the entire uterus (an operation called a *hysterectomy*). Lymph nodes in the pelvis may also be removed during surgery.

After a hysterectomy you may have some pain, nausea or bladder and bowel problems. If you have surgery to remove a small tumour on the surface of the cervix, you may have cramping, bleeding or a watery vaginal discharge. These side effects are usually temporary.

After a hysterectomy, you will no longer menstruate (have your period) and you will no longer be able to become pregnant. Having a hysterectomy may change how you feel about your body and your sexuality. Perhaps you are worried about being intimate with your partner or that your partner may reject you. It may help to talk about feelings with your partner, a close family member or a friend. Your doctor can also refer you to specialists and counsellors who can help you and your partner with the emotional side effects of cervical cancer surgery.

Radiation therapy: In *external beam radiation therapy*, a large machine is used to carefully aim a beam of radiation at the tumour. The radiation damages the cells in the path of the beam - normal cells as well as cancer cells. In *brachytherapy*, or internal radiation therapy, radioactive material is placed directly into or near the tumour.

Radiation side effects will be different depending on what part of the body receives the radiation. You may feel more tired than usual or notice changes to the skin (it may be red or tender) where the treatment was

given. You may have dryness, itching or burning in your vagina. These side effects will usually go away when treatment is finished.

Radiation therapy may make your vagina narrower. There are ways to expand the vagina, which will help make follow-up exams easier. Radiation may also cause early menopause. Menopause means you will no longer menstruate and you will no longer be able to become pregnant. Talk to your healthcare team about ways to reduce some of the symptoms of menopause.

Chemotherapy: Chemotherapy may be given as pills or by injection. Chemotherapy drugs interfere with the ability of cancer cells to grow and spread, but they also damage healthy cells. Although healthy cells can recover over time, you may experience side effects from your treatment like nausea, vomiting, loss of appetite, fatigue, hair loss and an increased risk of infection.

Clinical treatment trials: Clinical treatment trials investigate new approaches to treating cancer, such as new drugs, new types of treatments or combinations of existing treatments. They are closely monitored to make sure that they are safe for the participants. Ask your doctor if there is a clinical trial suitable as a treatment option for you. You may benefit and so may future cancer patients.

Complementary therapies: Complementary therapies are used *together with* conventional treatments. More research is needed to understand if these therapies are effective and how they work.

Alternative therapies are used *instead of* conventional treatments. Alternative therapies haven't been tested for safety or effectiveness. It's not known whether they will harm you or be effective in the treatment of cancer.

If you are thinking about using a complementary or alternative therapy, find out as much as you can about the therapy and talk to your healthcare team. It's possible that the therapy might interfere with test results or regular treatments.

After treatment

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

The schedule of follow-up visits is different for each person. You might see your doctor more often in the first year after treatment, and less often after that. It is important to continue having regular Pap tests.

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 are worried about your treatment ending, talk to your healthcare team. They are there to help you through this transition period.

Living with cancer

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

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: Those 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 give you a ride to your doctor’s office.

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

Yourself: Try to stay positive. Staying positive is about figuring out how to deal with cancer in the best way that you can – and everyone will do this their own way. It doesn’t mean that you must seem happy or cheerful all the time or avoid talking or thinking about the difficulties of having cancer. But it can mean looking after yourself by finding relaxing, enjoyable activities that refresh you mentally, spiritually or physically.

The Canadian Cancer Society

Helping you understand cancer

Now that you have been introduced to the basics of cervical cancer, you may want to learn more. Please contact the Canadian Cancer Society for more detailed information on cervical cancer. Our services are free and confidential.

To contact the Canadian Cancer Society:

- Call an information specialist toll-free at **1 888 939-3333** Monday to Friday 9 a.m. to 6 p.m.
- E-mail us at **info@cis.cancer.ca**.
- Visit our website at **www.cancer.ca**.
- Contact your local Canadian Cancer Society office.



We'd like to hear from you

E-mail us at publicationsfeedback@cancer.ca if you have comments or suggestions to help us make this booklet more useful for you and other readers.

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, our services or to make a donation.



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