About Cervical Cancer

Overview and Types

If you have been diagnosed with cervical cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- What Is Cervical Cancer?

Research and Statistics

See the latest estimates for new cases of cervical cancer and deaths in the US and what research is currently being done.

- Key Statistics for Cervical Cancer
- What's New in Cervical Cancer Research and Treatment?

What Is Cervical Cancer?

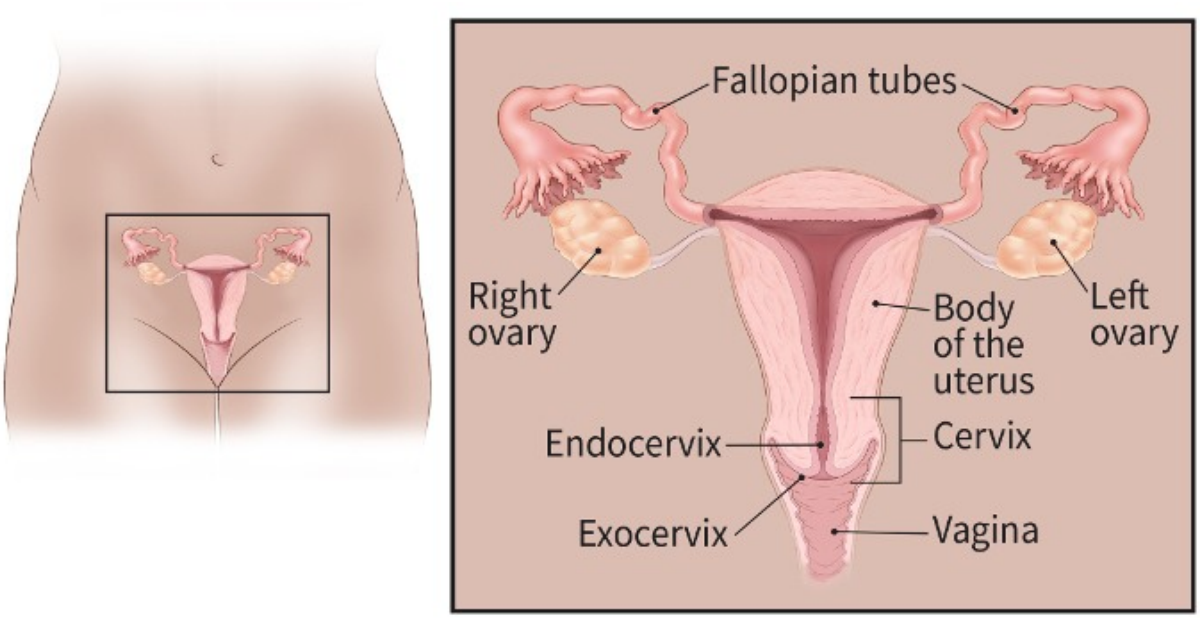
Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer, and can spread to other areas of the body. To learn more about how cancers start and spread, see What Is Cancer?[1]

Cervical cancer starts in the cells lining the cervix -- the lower part of the uterus (womb). This is sometimes called the uterine cervix. The fetus grows in the body of the uterus (the upper part). The cervix connects the body of the uterus to the vagina (birth canal).

The cervix has two different parts and is covered with two different types of cells.

- The part of the cervix closest to the body of the uterus is called the **endocervix** and is covered with **glandular** cells.
- The part next to the vagina is the **exocervix** *(or* **ectocervix***)* and is covered in **squamous** cells.

These two cell types meet at a place called the **transformation zone***.* The exact location of the transformation zone changes as you get older and if you give birth.



Most cervical cancers begin in the cells in the transformation zone. These cells do not suddenly change into cancer. Instead, the normal cells of the cervix first gradually develop pre-cancerous changes that turn into cancer. Doctors use several terms to describe these pre-cancerous changes, including *cervical intraepithelial neoplasia (CIN)*, *squamous intraepithelial lesion (SIL)*, and *dysplasia.* These changes can be detected by the Pap test and treated to prevent cancer from developing. See Can Cervical Cancer Be Prevented?[2]

Although cervical cancers start from cells with pre-cancerous changes (pre-cancers), only some of the women with pre-cancers of the cervix will develop cancer. It usually takes several years for cervical pre-cancer to change to cervical cancer, but it also can happen in less than a year. For most women, pre-cancerous cells will go away without any treatment. Still, in some women pre-cancers turn into true (invasive) cancers.

Treating all cervical pre-cancers can prevent almost all cervical cancers. Pre-cancerous changes and specific types of treatment for pre-cancers are discussed in [3]Cervical Cancer Prevention and Early Detection[4].

Types of cervical cancer

Cervical cancers and cervical pre-cancers are classified by how they look under a microscope. The main types of cervical cancers are *squamous cell carcinoma* and *adenocarcinoma*.

- Most (up to 9 out of 10) cervical cancers are **squamous cell carcinomas**. These cancers develop from cells in the exocervix and the cancer cells have features of squamous cells under the microscope. Squamous cell carcinomas most often begin in the transformation zone (where the exocervix joins the endocervix).
- Most of the other cervical cancers are **adenocarcinomas**[5]. Adenocarcinomas are cancers that develop from gland cells. Cervical adenocarcinoma develops from the mucus-producing gland cells of the endocervix. Cervical adenocarcinomas seem to have become more common[6]in the past 20 to 30 years.
- Less commonly, cervical cancers have features of both squamous cell carcinomas and adenocarcinomas. These are called **adenosquamous carcinomas** or **mixed carcinomas**.

Although almost all cervical cancers are either squamous cell carcinomas or adenocarcinomas, other types of cancer also can develop in the cervix. These other types, such as melanoma[7], sarcoma[8], and lymphoma[9], occur more commonly in other parts of the body.

Only the more common cervical cancer types are covered here, and not the rare types.

Hyperlinks

1. www.cancer.org/cancer/cancer-basics/what-is-cancer.html
2. www.cancer.org/cancer/cervical-cancer/causes-risks-prevention/prevention.html
3. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection.html
4. www.cancer.org/cancer/melanoma-skin-cancer.html
5. www.cancer.org/cancer/soft-tissue-sarcoma.html
6. www.cancer.org/cancer/lymphoma.html

Reference: American Cancer Society. Cancer Facts & Figures for 2016. Atlanta, Ga: American Cancer Society; 2016. Available at: www.cancer.org/research/cancer-facts-figures/cancer-facts-figures-2016. Accessed October 16, 2018.

Key Statistics for Cervical Cancer

Cervical pre-cancers are diagnosed far more often than invasive cervical cancer.

The American Cancer Society's estimates for cervical cancer in the United States for 2016 2019 are:

- About 13,170 new cases of invasive cervical cancer will be diagnosed.
- About 4,250 women will die from cervical cancer.

Cervical cancer tends to occur in midlife and is most frequently diagnosed in women between the ages of 35 and 44. It rarely develops in women younger than 20. Many older women do not realize that the risk of developing cervical cancer is still present as they age. More than 15% of cases of cervical cancer are found in women over 65 . However, these cancers rarely occur in women who have been getting regular tests to screen for cervical cancer before they were 65. See Can cervical cancer be prevented?[1] and Cervical Cancer Prevention and Early Detection[2] for more information about tests used to screen for cervical cancer.

In the United States, Hispanic women are most likely to get cervical cancer, followed by African-Americans, Asians and Pacific Islanders, and whites. American Indians and Alaskan natives have the lowest risk of cervical cancer in this country.

Visit the American Cancer Society's Cancer Statistics Center[3] for more key statistics.

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/causes-risks-prevention/prevention.html
2. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html
3. https://cancerstatisticscenter.cancer.org/

References

American Cancer Society. Cancer Facts & Figures 2019. Atlanta, Ga: American Cancer Society; 2019.

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: January 8, 2019

What's New in Cervical Cancer Research and Treatment?

New ways to prevent and treat cancer of the cervix are being researched. Some of the promising new developments include the following:

Sentinel lymph node biopsy (SNLB)

During surgery for cervical cancer, lymph nodes in the pelvis may be removed to check for cancer spread. Instead of removing many lymph nodes, a technique called *sentinel lymph node biopsy* can be used to target just the few lymph nodes most likely to contain cancer. In this technique a blue dye containing a radioactive tracer is injected into the cancer and allowed to drain into lymph nodes. Then, during surgery, the lymph nodes that contain radiation and the blue dye can be identified and removed. These are the lymph nodes most likely to contain cancer if it has spread. If these lymph nodes don't contain cancer, the other lymph nodes don't need to be removed. Removing fewer lymph nodes may lower the risk of later problems, such as lymphedema of the legs.

A clinical trial is looking at a different way of doing a sentinel node biopsy procedure. It maps the lymph nodes using with robotic (laparoscopic) assisted near infrared imaging after injecting indocyanine green (ICG) dye into the cervix.

SLNB is not a standard procedure for cervical cancer at this time. Available studies suggest that SLNB may be helpful in early-stage cervical cancer, but more studies are planned to see if this procedure should routinely become part of the treatment.

Immunotherapy

In cancer, the immune system cannot control the fast growth of tumor cells. Recently, new drugs called **immune checkpoint inhibitors** have been developed that "reset" the immune system. They have been found to be active in treating a number of types of cancer. Their helpfulness in cervical cancer treatment is not yet known, but clinical trials are underway to find out more. See Cancer Immunotherapy[1]for more information on this type of treatment.

HPV vaccines

Vaccines have been developed to prevent infection with some of the HPV types that cause associated with cervical cancer. Currently available vaccines[2] are intended to produce immunity to HPV types that cause about 90% of cervical cancers. Studies are being done to see how well these vaccines will reduce the risk of cervical cancer.

Vaccines are also being developed to prevent infection with some of the other HPV

types that also cause cancer. Studies are being done to see how well these vaccines will reduce the risk of cervical cancer.

Some experimental vaccines are also being studied for women with established HPV infections, to help their immune systems destroy the virus and cure the infection before a cancer develops.

Still other vaccines are meant to help women who already have advanced cervical cancer. These vaccines attempt to produce an immune reaction to the parts of the virus (E6 and E7 proteins) that make the cervical cancer cells grow abnormally. It is hoped that this immunity will kill the cancer cells or stop them from growing. One such study in advanced cervical cancer showed tumor shrinkage with a vaccine against the E7 protein.

Targeted therapy

As researchers have learned more about the gene changes in cells that cause cancer, they have been able to develop newer drugs that specifically target these changes. These targeted drugs[3] work differently from standard chemotherapy drugs. They often have different (and less severe) side effects. These drugs may be used alone or with more traditional chemotherapy.

Pazopanib is a type of targeted drug that blocks certain growth factors that help cancer cells grow. It has shown to be helpful in some early studies of patients with advanced cervical cancer. This drug continues to be studied.

Hyperthermia

Some research indicates that adding hyperthermia to radiation may help keep the cancer from coming back and help patients live longer. Hyperthermia is a treatment that raises the temperature in the area where the tumor is, most often by using radiofrequency antennae placed around the patient.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/immunotherapy.html
2. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv/hpv-vaccines.html

3. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Written by

The American Cancer Society medical and editorial content team (www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

Cervical Cancer Causes, Risk Factors, and Prevention

Risk Factors

A risk factor is anything that affects your chance of getting a disease such as cancer. Learn more about the risk factors for cervical cancer.

- What Are the Risk Factors for Cervical Cancer?
- Do We Know What Causes Cervical Cancer?

Prevention

There is no way to completely prevent cancer. But there are things you can do that might lower your risk. Learn more.

- Can Cervical Cancer Be Prevented?
- Cervical Cancer Prevention and Early Detection[1]

What Are the Risk Factors for Cervical Cancer?

A risk factor is anything that changes your chance of gettinga disease such as cancer. Different cancers have different risk factors. For example, exposing skin to strong

sunlight is a risk factor for skin cancer. Smoking is a risk factor for many cancers. But having a risk factor, or even several, does not mean that you will get the disease.

Severalrisk factors increase your chance of developing cervical cancer. Women without any of these risk factors rarely develop cervical cancer. Although these risk factors increase the odds of developing cervical cancer, many women with these risks do not develop this disease. When a woman develops cervical cancer or pre-cancerous changes, it might not be possible to say that a particular risk factor was the cause.

In thinking about risk factors, it helps to focus on those you can change or avoid (like smoking or human papillomavirus infection), rather than those you cannot (such as your age and family history). However, it is still important to know about risk factors that cannot be changed, because it's even more important for women who have these factors to get regular Pap tests to detect cervical cancer early.

Cervical cancer risk factors include:

Human papillomavirus (HPV) infection

Infection by the human papillomavirus[1] (HPV) is the most important risk factor for cervical cancer. HPV is a group of more than 150 related viruses. Some of them cause a type of growth called **papillomas,** which are more commonly known as warts .

- HPV can infect cells on the surface of the skin, and those lining the genitals, anus, mouth and throat, but not the blood or internal organs such as the heart or lungs.
- HPV can spread from one person to another during skin-to-skin contact. One way HPV spreads is through sexual activity, including vaginal, anal, and even oral sex.
- Different types of HPV cause warts on different parts of the body. Some cause common warts on the hands and feet; others tend to cause warts on the lips or tongue.

Certain types of HPV may cause warts on or around the female and male genital organs and in the anal area. These are called *low-risk types* of HPV because they are seldom linked to cancer.

Other types of HPV are called high-risk types because they are strongly linked to cancers, including cancer of the cervix, vulva[2], and vagina[3] in women, penile cancer[4] in men, and cancers of the anus[5], mouth, and throat[6] in both men and women.

Infection with HPV is common, and in most people the body can clear the infection by

itself. Sometimes, however, the infection does not go away and becomes chronic. Chronic infection, especially when it is caused by certain high-risk HPV types, can eventually cause certain cancers, such as cervical cancer.

Although there is currently no cure for HPV infection, there are ways to treat the warts and abnormal cell growth that HPV causes.

For more information on about this topic, see our documents Cervical Cancer Prevention and Early Detection[7] andHPV and HPV Testing[8].

Smoking

When someone smokes, they and those around them are exposed to many cancer-causing chemicals that affect organs other than the lungs. These harmful substances are absorbed through the lungs and carried in the bloodstream throughout the body.

Women who smoke are about twice as likely as non-smokers to get cervical cancer. Tobacco by-products have been found in the cervical mucus of women who smoke. Researchers believe that these substances damage the DNA of cervix cells and may contribute to the development of cervical cancer. Smoking also makes the immune system less effective in fighting HPV infections.

Having a weakened immune system

Human immunodeficiency virus (HIV)[9], the virus that causes AIDS, damages a woman's immune system and puts them at higher risk for HPV infections.

The immune system is important in destroying cancer cells and slowing their growth and spread. In women with HIV, a cervical pre-cancer might develop into an invasive cancer faster than it normally would.

Another group of women at risk for cervical cancer are those taking drugs to suppress their immune response, such as those being treated for an autoimmune disease (in which the immune system sees the body's own tissues as foreign and attacks them, as it would a germ) or those who have had an organ transplant .

Chlamydia infection

Chlamydia is a relatively common kind of bacteria that can infect the reproductive system. It is spread by sexual contact. Chlamydia infection can cause pelvic

inflammation, leading to infertility.

Some studies have seen a higher risk of cervical cancer in women whose blood tests and cervical mucus showed evidence of past or current chlamydia infection. Women who are infected with chlamydia often have no symptoms. In fact, they may not know that they are infected at all unless they are tested for chlamydia during a pelvic exam.

A diet low in fruits and vegetables

Women whose diets don't include enough fruits and vegetables may be at increased risk for cervical cancer.

Being overweight

Overweight women are more likely to develop adenocarcinoma of the cervix.

Long-term use of oral contraceptives (birth control pills)

There is evidence that taking oral contraceptives (OCs) for a long time increases the risk of cancer of the cervix. Research suggests that the risk of cervical cancer goes up the longer a woman takes OCs, but the risk goes back down again after the OCs are stopped, and returns to normal about 10 years after stopping.

The American Cancer Society believes that a woman and her doctor should discuss whether the benefits of using OCs outweigh the potential risks.

Intrauterine device (IUD) use

Some research suggests that women who had ever used an intrauterine device (IUD) had a lower risk of cervical cancer. The effect on risk was seen even in women who had an IUD for less than a year, and the protective effect remained after the IUDs were removed.

Using an IUD might also lower the risk of endometrial (uterine) cancer. However, IUDs do have some risks. A woman interested in using an IUD should first discuss the possible risks and benefits with her doctor. Also, a woman with multiple sexual partners should use condoms to lower her risk of sexually transmitted illnesses no matter what other form of contraception she uses.

Having multiple full-term pregnancies

Women who have had 3 or more full-term pregnancies have an increased risk of developing cervical cancer. No one really knows why this is true. Also, studies have pointed to hormonal changes during pregnancy as possibly making women more susceptible to HPV infection or cancer growth. Another thought is that pregnant women might have weaker immune systems, allowing for HPV infection and cancer growth.

Being younger than 17 at your first full-term pregnancy

Women who were younger than 17 years when they had their first full-term pregnancy are almost 2 times more likely to get cervical cancer later in life than women who waited to get pregnant until they were 25 years or older.

Economic status

Many low-income women do not have easy access to adequate health care services, including Pap tests. This means they may not get screened or treated for cervical pre-cancers.

Diethylstilbestrol (DES)

DES is a hormonal drug that was given to some women between 1940 and 1971 to prevent miscarriage. Women whose mothers took DES (when pregnant with them) develop clear-cell adenocarcinoma of the vagina or cervix more often than would normally be expected. These types of cancer are extremely rare in women who haven’t been exposed to DES. There is about 1 case of vaginal or cervical clear-cell adenocarcinoma in every 1,000 women whose mothers took DES during pregnancy. This means that about 99.9% of "DES daughters" do not develop these cancers.

DES-related clear cell adenocarcinoma is more common in the vagina than the cervix. The risk appears to be greatest in women whose mothers took the drug during their first 16 weeks of pregnancy. The average age of women diagnosed with DES-related clear-cell adenocarcinoma is 19 years. Since the use of DES during pregnancy was stopped by the FDA in 1971, even the youngest DES daughters are older than 40 past the age of highest risk. Still, there is no age cut-off when these women are felt to be safe from DES-related cancer. Doctors do not know exactly how long these women will remain at risk.

DES daughters may also be at increased risk of developing squamous cell cancers and

pre-cancers of the cervix linked to HPV.

You can learn more in DES Exposure: Questions and Answers[10]. Read it on our website, or call (1-800-227-2345) to have a free copy sent to you.

Having a family history of cervical cancer

Cervical cancer may run in some families . If your mother or sister had cervical cancer, your chances of developing the disease are higher than if no one in the family had it. Some researchers suspect that some instances of this familial tendency are caused by an inherited condition that makes some women less able to fight off HPV infection than others. In other instances, women in the same family as a patient already diagnosed could be more likely to have one or more of the other non-genetic risk factors previously described in this section.

Hyperlinks

1. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv.html
2. http://www.cancer.org/cancer/vulvarcancer/index
3. http://www.cancer.org/cancer/vaginalcancer/index
4. http://www.cancer.org/cancer/penilecancer/index
5. http://www.cancer.org/cancer/analcancer/index
6. http://www.cancer.org/cancer/oralcavityandoropharyngealcancer/index
7. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html
8. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv/hpv-and-hpv-testing.html
9. www.cancer.org/cancer/cancer-causes/infectious-agents/hiv-infection-aids.html
10. www.cancer.org/cancer/cancer-causes/medical-treatments/des-exposure.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: October 19, 2017 Last Revised: November 1, 2017

Do We Know What Causes Cervical Cancer?

In recent years, there has been a lot of progress in understanding what happens in cells of the cervix when cancer develops. In addition, several risk factors have been identified that increase the odds that a woman might develop cervical cancer (see What Are the Risk Factors for Cervical Cancer?).

The development of normal human cells mostly depends on the information contained in the cells' DNA. DNA is the chemical in our cells that makes up our genes, which control how our cells work. We look like our parents because they are the source of our DNA. But DNA affects more than just how we look.

Some genes control when cells grow, divide, and die:·

- Genes that help cells grow, divide, and stay alive are called **oncogenes**.
- Genes that help keep cell growth under control or make cells die at the right time are called **tumor suppressor genes**.

Cancers can be caused by DNA mutations (gene defects) that turn on oncogenes or turn off tumor suppressor genes.

Human papillomaviruses[1] (HPV) cause the production of two proteins known as E6 and E7 which turn off some tumor suppressor genes. This may allow the cervical lining cells to grow too much and to develop changes in additional genes, which in some cases will lead to cancer.

But HPV is not the only cause of cervical cancer. Most women with HPV don't get cervical cancer, and certain other risk factors, like smoking and HIV infection, influence which women exposed to HPV are more likely to develop cervical cancer.

Hyperlinks

1. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 19, 2016 Last Revised: October 25, 2017

Can Cervical Cancer Be Prevented?

The most common form of cervical cancer starts with pre-cancerous changes and there are ways to stop this disease from developing. The first way is to find and treat pre-cancers before they become true cancers, and the second is to prevent the pre-cancers.

Finding cervical pre-cancers

A well-proven way to prevent cervical cancer is to have testing (screening). Screening can find conditions that may lead to pre-cancers and can find pre-cancers before they can turn into invasive cancer. The Pap test (or Pap smear) and the human papillomavirus (HPV) test are specific tests used during screenings for cervical cancer. If a pre-cancer is found it can be treated, stopping cervical cancer before it really starts.

The Pap test or smear is a procedure used to collect cells from the cervix so that they can be looked at under a microscope to find cancer and pre-cancers. It's important to know that most invasive cervical cancers are found in women who have not had regular Pap tests. A Pap test can be done during a pelvic exam, but not all pelvic exams include a Pap test.

An HPV test can be done on the same sample of cells collected from the Pap test. The HPV test can help know if there is an HPV infection which is one condition that can lead to pre-cancers.

The most important thing you can do to prevent cervical cancer is to be tested according to American Cancer Society guidelines. These can be found in Cervical Cancer Prevention and Early Detection[1]. Information on treatment if the Pap test results are abnormal is also covered.

Things to do to prevent pre-cancers

Based on your age, overall health, and personal risk for cervical cancer, here are some things that may prevent pre-cancers and conditions that lead to pre-cancers.

- Get an HPV vaccine[2]
- Get screening tests, including the Pap test and HPV test
- Do not smoke[3]
- Limit sex partners
- Use a condom

More information about ways to prevent cervical pre-cancer and cancer can be found in Cervical Cancer Prevention and Early Detection[4].

You can also find information on preventing HPV infection in HPV Vaccines[5].

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html
2. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv/hpv-vaccines.html
3. www.cancer.org/healthy/stay-away-from-tobacco.html
4. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection.html
5. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv/hpv-vaccines.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: October 19, 2017 Last Revised: January 23, 2019

Written by

The American Cancer Society medical and editorial content team (www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in

medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

cancer.org | 1.800.227.2345

Cervical Cancer Early Detection, Diagnosis, and Staging

Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- Can Cervical Cancer Be Found Early?
- Cervical Cancer Prevention and Early Detection[1]
- Signs and Symptoms of Cervical Cancer
- Tests for Cervical Cancer

Stages and Outlook (Prognosis)

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- Cervical Cancer Stages
- Survival Rates for Cervical Cancer

Questions to Ask About Cervical Cancer

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- What Should You Ask Your Doctor About Cervical Cancer?

Can Cervical Cancer Be Found Early?

The best way to find cervical cancer early is to have regular screening with a Pap test (which may be combined with a test for human papilloma virus or HPV). As Pap testing became routine in this country, finding pre-invasive lesions (pre-cancers) of the cervix became far more common than finding invasive cancer. Being alert to any signs and symptoms of cervical cancer can also help avoid unnecessary delays in diagnosis. Early detection greatly improves the chances of successful treatment and can prevent any early cervical cell changes from becoming cancerous.

More information about using the Pap test and the HPV test to find cervical cancer early, including the American Cancer Society's Guidelines for cervical cancer screening can be found in Cervical Cancer Prevention and Early Detection[1].

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Signs and Symptoms of Cervical Cancer

Women with early cervical cancers and pre-cancers usually have no symptoms. Symptoms often do not begin until the cancer becomes invasive and grows into nearby tissue. When this happens, the most common symptoms are:

- Abnormal vaginal bleeding, such as bleeding after vaginal sex, bleeding after menopause, bleeding and spotting between periods, and having (menstrual)

periods that are longer or heavier than usual. Bleeding after douching or after a pelvic exam may also occur.
- An unusual discharge from the vagina the discharge may contain some blood and may occur between your periods or after menopause.
- Pain during sex.

These signs and symptoms can also be caused by conditions other than cervical cancer. For example, an infection can cause pain or bleeding. Still, if you have any of these symptoms, see a health care professional right away. Ignoring symptoms may allow the cancer to grow to a more advanced stage and lower your chance for effective treatment.

Even better, don't wait for symptoms to appear. Have regular screening tests for cervical cancer[1].

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection/cervical-cancer-screening-guidelines.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Tests for Cervical Cancer

The first step in finding cervical cancer is often an abnormal Pap test result. This will lead to further tests which can diagnose cervical cancer.

Cervical cancer may also be suspected if you have symptoms like abnormal vaginal bleeding or pain during sex. Your primary doctor or gynecologist often can do the tests

needed to diagnose pre-cancers and cancers and may also be able to treat a pre-cancer.

If there is a diagnosis of invasive cancer, your doctor should refer you to a gynecologic oncologist, a doctor who specializes in cancers of women's reproductive systems.

Tests for women with symptoms of cervical cancer or abnormal Pap results

Medical history and physical exam

First, the doctor will ask you about your personal and family medical history. This includes information related to risk factors and symptoms of cervical cancer. A complete physical exam will help evaluate your general state of health. The doctor will do a pelvic exam and may do a Pap test if one has not already been done. In addition, your lymph nodes will be felt for evidence of metastasis (cancer spread).

The Pap test is a screening test, not a diagnostic test. It cannot tell for certain if you have cervical cancer. An abnormal Pap test result may mean more testing, sometimes including tests to see if a cancer or a pre-cancer is actually present. The tests that are used include colposcopy (with biopsy), endocervical scraping, and cone biopsies.

Colposcopy

If you have certain symptoms that are suggestive of cancer or if your Pap test result shows abnormal cells, you will need to have a test called *colposcopy*. You will lie on the exam table as you do with a pelvic exam. A speculum will be placed in the vagina to help the doctor see the cervix. The doctor will use a colposcope to examine the cervix. The colposcope is an instrument that stays outside the body and has magnifying lenses. It lets the doctor see the surface of the cervix closely and clearly. Colposcopy itself is usually no more uncomfortable than any other speculum exam. It can be done safely even if you are pregnant. Like the Pap test, it is better not to do it during your menstrual period.

The doctor will put a weak solution of acetic acid (similar to vinegar) on your cervix to make any abnormal areas easier to see. If an abnormal area is seen, a biopsy (removal of a small piece of tissue) will be done. The tissue is sent to a lab to be looked at under a microscope. A biopsy is the best way to tell for certain if an abnormal area is a pre-cancer, a true cancer, or neither. Although the colposcopy procedure is usually not painful, the cervical biopsy can cause discomfort, cramping, bleeding, or even pain in some women.

Cervical biopsies

Several types of biopsies can be used to diagnose cervical pre-cancers and cancers. If the biopsy can completely remove all of the abnormal tissue, it might be the only treatment needed.

Colposcopic biopsy

For this type of biopsy, first the cervix is examined with a colposcope to find the abnormal areas. Using a biopsy forceps, a small (about 1/8-inch) section of the abnormal area on the surface of the cervix is removed. The biopsy procedure may cause mild cramping, brief pain, and some slight bleeding afterward. A local anesthetic is sometimes used to numb the cervix before the biopsy.

Endocervical curettage (endocervical scraping)

Sometimes the transformation zone (the area at risk for HPV infection and pre-cancer) cannot be seen with the colposcope and something else must be done to check that area for cancer. This means taking a scraping of the endocervix by inserting a narrow instrument (called a *curette*) into the endocervical canal (the part of the cervix closest to the uterus). The curette is used to scrape the inside of the canal to remove some of the tissue, which is then sent to the laboratory for examination. After this procedure, patients may feel a cramping pain, and they may also have some light bleeding.

Cone biopsy

In this procedure, also known as *conization*, the doctor removes a cone-shaped piece of tissue from the cervix. The base of the cone is formed by the exocervix (outer part of the cervix), and the point or apex of the cone is from the endocervical canal. The tissue removed in the cone includes the transformation zone (the border between the exocervix and endocervix, where cervical pre-cancers and cancers are most likely to start).

A cone biopsy can also be used as a treatment to completely remove many pre-cancers and some very early cancers. Having had a cone biopsy will not prevent most women from getting pregnant, but if a large amount of tissue has been removed, women may have a higher risk of giving birth prematurely.

The methods commonly used for cone biopsies are the loop electrosurgical excision procedure (LEEP), also called the *large loop excision of the transformation zone* (LLETZ), and the cold knife cone biopsy.

- **Loop electrosurgical procedure (LEEP, LLETZ):** In this method, the tissue is removed with a thin wire loop that is heated by electricity and acts as a small knife. For this procedure, a local anesthetic is used, and it can be done in your doctor's office.
- **Cold knife cone biopsy:** This method is done in a hospital. A surgical scalpel or a laser is used to remove the tissue instead of a heated wire. You will receive anesthesia during the operation (either a general anesthesia, where you are asleep, or a spinal or epidural anesthesia, where an injection into the area around the spinal cord makes you numb below the waist). Having any type of cone biopsy will not prevent most women from getting pregnant, but if a large amount of tissue has been removed, women may have a higher risk of giving birth prematurely.

Pre-cancerous changes in a biopsy are called *cervical intraepithelial neoplasia* (CIN). Sometimes the term *dysplasia* is used instead of CIN. CIN is graded on a scale of 1 to 3 based on how much of the cervical tissue looks abnormal when viewed under the microscope.

How biopsy results are reported

- In CIN1, not much of the tissue looks abnormal, and it is considered the least serious cervical pre-cancer (mild dysplasia).
- In CIN2 more of the tissue looks abnormal (moderate dysplasia)
- In CIN3 most of the tissue looks abnormal; CIN3 is the most serious pre-cancer (severe dysplasia) and includes carcinoma in situ).

If a biopsy shows a pre-cancer, doctors will take steps to keep an actual cancer from developing. Treatment of women with abnormal pap results is discussed in Cervical Cancer Prevention and Early Detection

Diagnostic tests for women with cervical cancer

If a biopsy shows that cancer is present, your doctor may order certain tests to see how far the cancer has spread. Many of the tests described below are not necessary for every patient. Decisions about using these tests are based on the results of the physical exam and biopsy.

Cystoscopy, proctoscopy, and examination under anesthesia

These are most often done in women who have large tumors. They are not necessary if the cancer is caught early.

In cystoscopy a slender tube with a lens and a light is placed into the bladder through the urethra. This lets the doctor check your bladder and urethra to see if cancer is growing into these areas. Biopsy samples can be removed during cystoscopy for pathologic (microscopic) testing. Cystoscopy can be done under a local anesthetic, but some patients may need general anesthesia. Your doctor will let you know what to expect before and after the procedure.

Proctoscopy is a visual inspection of the rectum through a lighted tube to check for spread of cervical cancer into your rectum.

Your doctor may also do a pelvic exam while you are under anesthesia to find out if the cancer has spread beyond the cervix.

Imaging studies

If your doctor finds that you have cervical cancer, certain imaging studies[1] may be done to look inside the body. These tests can show if and where the cancer has spread, which will help you and your doctor decide on a treatment plan.

Chest x-ray

Your chest may be x-rayed to see if cancer has spread to your lungs. This is very unlikely unless the cancer is far advanced.

Computed tomography (CT)

CT scans are usually done if the tumor is larger or if there is concern about cancer spread. For more information, see CT Scan for Cancer[2].

Magnetic resonance imaging (MRI)

MRI looks at soft tissue parts of the body sometimes better than other imaging tests. Your doctor will decide which imaging test is best for your situation.

For more information, see MRI for Cancer[3].

Intravenous urography

Intravenous urography (also known as **intravenous pyelogram**, or **IVP**) is an x-ray of

the urinary system taken after a special dye is injected into a vein. This test can find abnormal areas in the urinary tract, caused by the spread of cervical cancer. The most common finding is a blockage of the ureters (tubes that connect the kidneys to the bladder) by the cancer. IVP is rarely used for patients with cervical cancer because CT and MRI are also good at finding abnormal areas in the urinary tract, as well as others not seen with an IVP.

Positron emission tomography(PET scan)

PET scans use glucose (a form of sugar) that contains a radioactive atom. Cancer cells in the body absorb large amounts of the radioactive sugar and a special camera can detect the radioactivity.

This test can help see if the cancer has spread to lymph nodes. PET scans can also be useful if your doctor thinks the cancer has spread but doesn't know where, because they scan your whole body.

PET scans are often combined with CT scans using a machine that can do both at the same time. The combined PET/CT test is rarely used for patients with early cervical cancer, but may be used to look for more advanced cancer or if radiation treatment is a possibility. For more information on this test, see Nuclear Medicine Scans for Cancer[4].

Hyperlinks

1. www.cancer.org/treatment/understanding-your-diagnosis/tests/imaging-radiology-tests-for-cancer.html
2. www.cancer.org/treatment/understanding-your-diagnosis/tests/ct-scan-for-cancer.html
3. www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html
4. www.cancer.org/treatment/understanding-your-diagnosis/tests/nuclear-medicine-scans-for-cancer.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Cervical Cancer Stages

After someone is diagnosed with cervical cancer, doctors will try to figure out if it has spread, and if so, how far. This process is called *staging*. The stage of a cancer describes the extent of the cancer in the body. It helps determine how serious the cancer is and how best to treat it[1]. **The stage is one of the most important factors in deciding how to treat the cancer and determining how successful treatment might be.**

To determine the cancer's stage after a cervical cancer diagnosis, doctors try to answer these questions:

- How far has the cancer grown into the cervix?
- Has the cancer reached nearby structures?
- Has the cancer spread to the nearby lymph nodes or to distant organs?

Information from exams and tests is used to determine the size of the tumor, how deeply the tumor has invaded tissues in and around the cervix, and its spread to distant places (metastasis). For more information see Cancer Staging[2].

The **FIGO (International Federation of Gynecology and Obstetrics) staging system** is used most often for cancers of the female reproductive organs, including cervical cancer. For cervical cancer, the *clinical stage* is used and is based on the results of the doctor's physical exam, biopsies, imaging tests, and a few other tests that are done in some cases, such as cystoscopy and proctoscopy. It is not based on what is found during surgery. If surgery is done, a *pathologic stage* can be determined from the findings at surgery, but it does not change your clinical stage. Your treatment plan is based on the clinical stage.

The American Joint Committee on Cancer (AJCC) **TNM** staging system is another staging system based on 3 key pieces of information:

- **T** describes how far the main (primary) **tumor** has grown into the cervix and whether it has grown into nearby tissues.
- **N** indicates any cancer spread to lymph **nodes** near the cervix. Lymph nodes are bean-sized collections of immune system cells, to which cancers often spread first.
- **M** indicates if the cancer has spread (**metastasized**) to distant sites, such as other organs or lymph nodes that are not near the cervix.

FIGO stages are the same as AJCC stages.

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once a person's T, N, and M categories have been determined, this information is combined in a process called *stage grouping* to assign an overall stage.

Cervical cancer stage ranges from stages I (1) through IV (4).

As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means a more advanced cancer. And within a stage, an earlier letter means a lower stage. Cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

Cervical cancer staging can be complex. If you have any questions about your stage, please ask your doctor to explain it to you in a way you understand. (An explanation of the TNM and FIGO systems is in the stage table below.)

AJCC Stage	**Stage grouping**	**FIGO Stage**	**Stage description**
I	T1 Any N M0	I	The cancer cells have grown from the surface of the cervix into deeper tissues of the cervix. The cancer may also be growing into the body of the uterus, but it has not grown outside the uterus (T1). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IA	T1a Any N M0	IA	There is a very small amount of cancer, and it can be seen only under a microscope (T1a). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IA1	T1a1 Any N M0	IA1	The area of cancer is less than 3 mm (about 1/8-inch) deep and less than 7 mm (about 1/4-inch) wide (T1a1). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).

IA2	T1a2 Any N M0	IA2	The area of cancer invasion is between 3 mm and 5 mm (about 1/5-inch) deep and less than 7 mm (about 1/4-inch) wide (T1a2). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IB	T1b Any N M0	IB	This includes stage I cancers that can be seen without a microscope as well as cancers that can only be seen with a microscope if they have spread deeper than 5 mm (about 1/5 inch) into connective tissue of the cervix or are wider than 7 mm (T1b). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IB1	T1b Any N M0	IB1	The cancer can be seen but it is not larger than 4 cm (about 1 3/5 inches) (T1b1). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IB2	T1b2 Any N M0	IB2	The cancer can be seen and is larger than 4 cm (T1b2). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
II	T2 Any N M0	II	The cancer has grown beyond the cervix and uterus, but hasn't spread to the walls of the pelvis or the lower part of the vagina (T2). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IIA	T2a Any N M0	IIA	The cancer has not spread into the tissues next to the cervix (called the parametria) (T2a). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IIA1	T2a1 Any N	IIA1	The cancer can be seen but it is not larger than 4 cm (about 1 3/5 inches) (T2a1).

	M0		It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IIA2	T2a2 Any N M0	IIA2	The cancer can be seen and is larger than 4 cm(T2a2). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IIB	T2b Any N Mo	IIB	The cancer has spread into the tissues next to the cervix (the parametria) (T2b). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
III	T3 Any N M0	III	The cancer has spread to the lower part of the vagina or the walls of the pelvis. The cancer may be blocking the ureters (tubes that carry urine from the kidneys to the bladder) (T3). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IIIA	T3a Any N M0	IIIA	The cancer has spread to the lower part of the vagina or the walls of the pelvis. The cancer may be blocking the ureters (tubes that carry urine from the kidneys to the bladder) (T3a). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IIIB	T3b Any N M0	IIIB	The cancer has grown into the walls of the pelvis and/or is blocking one or both ureters causing kidney problems (called hydronephrosis) (T3b). It might or might not have not spread to nearby lymph nodes (Any N). It has not spread to distant sites (M0).
IVA	T4 Any N M0	IVA	The cancer has spread to the bladder or rectum or it is growing out of the pelvis (T4). It might or might not have not spread to nearby lymph nodes (Any N).

			It has not spread to distant sites (M0).
IVB	Any T Any N M1		The cancer has spread to distant organs beyond the pelvic area, such as distant lymph nodes, lungs, bones or liver. (M1)

T categories for cervical cancer

The T category describes how far the main tumor has grown into the cervix or beyond.

The T categories are described in the table above, except for:

- **TX:** Main tumor cannot be assessed due to lack of information
- **T0:** No evidence of a primary tumor

N categories for cervical cancer

The N category describes spread only to the lymph nodes near the cervix. Spread to distant nodes is considered metastasis (described in the M category).

The N categories are described in the table above, except for:

- **NX:** Regional lymph nodes cannot be assessed due to lack of information.
- **N0:** There is no regional lymph node spread.
- **N1:** The cancer has spread to nearby lymph nodes

M categories for cervical cancer

The M categories are described in the table above.

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/treating.html
2. www.cancer.org/treatment/understanding-your-diagnosis/staging.html

References

American Joint Committee on Cancer. Cervix Uteri. In: *AJCC Cancer Staging Manual*. 8th ed. New York, NY: Springer; 2017:649-659.

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: December 11, 2017 Last Revised: December 11, 2017

Survival Rates for Cervical Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can't predict what will happen in any particular person's case. These statistics can be confusing and may lead you to have more questions. Talk with your doctor about how these numbers may apply to you, as he or she is familiar with your situation.

What is a 5-year relative survival rate?

A **relative survival rate** compares women with the same type and stage of cervical cancer to women in the overall population. For example, if the **5-year relative survival rate** for a specific stage of cervical cancer is 90%, it means that women who have that cancer are, on average, about 90% as likely as women who don't have that cancer to live for at least 5 years after being diagnosed.

Where do these numbers come from?

The American Cancer Society relies on information from the SEER* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for cervical cancer in the United States, based on how far the cancer has spread. The SEER database, however,

does not group cancers by AJCC TNM stages (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:

- **Localized:** There is no sign that the cancer has spread outside of the cervix or uterus. This includes stage I cancers.
- **Regional:** The cancer has spread beyond the cervix and uterus to nearby structures. This includes mainly stage II, III and IVA cancers.
- **Distant:** The cancer has spread to distant parts of the body such as the lungs, liver or bones. For cervical cancer, this includes stage IVB cancers.

5-year relative survival rates for cervical cancer

(Based on women diagnosed with cervical cancer between 2008 and 2014.)

SEER Stage	5-year Relative Survival Rate
Localized	92%
Regional	56%
Distant	17%
All SEER stages combined	66%

Understanding the numbers

- **People now being diagnosed with cervical cancer may have a better outlook than these numbers show.** Treatments improve over time, and these numbers are based on people who were diagnosed and treated at least five years earlier.
- **These numbers apply only to the stage of the cancer when it is first diagnosed.** They do not apply later on if the cancer grows, spreads, or comes back after treatment.
- **These numbers don't take everything into account.** Survival rates are grouped based on how far the cancer has spread, but your age, overall health, how well the cancer responds to treatment, and other factors will also affect your outlook.

*SEER= Surveillance, Epidemiology, and End Results

Hyperlinks

1. https://seer.cancer.gov/csr/1975_2015/

References

American Cancer Society. *Cancer Facts & Figures 2019*. Atlanta, Ga: American Cancer Society; 2019.

Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2015/ (seer.cancer.gov/csr/1975_2015/)[1], based on November 2017 SEER data submission, posted to the SEER web site, April 2018.

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: December 11, 2017 Last Revised: February 5, 2019

What Should You Ask Your Doctor About Cervical Cancer?

It is important for you to have frank, open discussions with your cancer care team. They want to answer all of your questions, so that you can make informed treatment and life decisions. For instance, consider these questions:

When you're told you have cervical cancer

- What type[1] of cervical cancer do I have?
- Has my cancer spread outside the cervix?
- Can the stage of my cancer be determined and what does that mean?
- Will I need other tests before we can decide on treatment?
- Do I need to see any other doctors or health professionals?
- If I’m concerned about the costs and insurance coverage for my diagnosis and

treatment, who can help me?

When deciding on a treatment plan

- What are my treatment choices?
- What treatment do you recommend and why?
- How much experience do you have treating this type of cancer?
- Should I get a second opinion? How do I do that? Can you recommend someone?
- What would the goal of the treatment be?
- How quickly do we need to decide on treatment?
- What should I do to be ready for treatment?
- How long will treatment last? What will it be like? Where will it be done?
- What risks or side effects are there to the treatments you suggest? Are there things I can do to reduce these side effects?
- How might treatment affect my daily activities?
- What are the chances my cancer will recur (come back) with these treatment plans?
- What will we do if the treatment doesn't work or if the cancer recurs?
- Will I be able to have children after my treatment?
- What are my treatment options if I want to have children in the future?

During treatment

Once treatment begins, you'll need to know what to expect and what to look for. Not all of these questions may apply to you, but asking the ones that do may be helpful.

- How will we know if the treatment is working?
- Is there anything I can do to help manage side effects?
- What symptoms or side effects should I tell you about right away?
- How can I reach you on nights, holidays, or weekends?
- Do I need to change what I eat during treatment?
- Are there any limits on what I can do?
- What kind of exercise should I do, and how often?
- Can you suggest a mental health professional I can see if I start to feel overwhelmed, depressed, or distressed?

After treatment

- Will I need a special diet after treatment?
- Are there any limits on what I can do?
- What other symptoms should I watch for?
- What kind of exercise should I do now?
- What type of follow-up will I need after treatment?
- How often will I need to have follow-up exams and imaging tests?
- Will I need any blood tests?
- How will we know if the cancer has come back? What should I watch for?
- What will my options be if the cancer comes back?

Along with these sample questions, be sure to write down some of your own. For instance, you might want more information about recovery times. Or you might ask if you qualify for a clinical trial.

Keep in mind that doctors aren't the only ones who can give you information. Other health care professionals, such as nurses and social workers, can answer some of your questions. To find out more about speaking with your health care team, see The Doctor-Patient Relationship.

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/about/what-is-cervical-cancer.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: September 19, 2014 Last Revised: January 29, 2016

Written by

The American Cancer Society medical and editorial content team (www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

cancer.org | 1.800.227.2345

Treating Cervical Cancer

If you've been diagnosed with cervical cancer, your cancer care team will talk with you about treatment options. In choosing your treatment plan, you and your cancer care team will also take into account your age, your overall health, and your personal preferences.

How is cervical cancer treated?

Common types of treatments for cervical cancer include:

- Surgery for Cervical Cancer
- Radiation Therapy for Cervical Cancer
- Chemotherapy for Cervical Cancer
- Targeted Therapy for Cervical Cancer
- Immunotherapy for Cervical Cancer

Common treatment approaches

Depending on the type and stage of your cancer, you may need more than one type of treatment. For the earliest stages of cervical cancer, either surgery or radiation combined with chemo may be used. For later stages, radiation combined with chemo is usually the main treatment. Chemo (by itself) is often used to treat advanced cervical cancer.

- Treatment Options for Cervical Cancer, by Stage

Who treats cervical cancer?

Doctors on your cancer treatment team may include:

- A gynecologist: a doctor who treats diseases of the female reproductive system
- A gynecologic oncologist: a doctor who specializes in cancers of the female reproductive system
- A radiation oncologist: a doctor who uses radiation to treat cancer
- A medical oncologist: a doctor who uses chemotherapy and other medicines to treat cancer

Many other specialists may be involved in your care as well, including nurse practitioners, nurses, psychologists, social workers, rehabilitation specialists, and other health professionals.

- Health Professionals Associated With Cancer Care[1]

Making treatment decisions

It's important to discuss all of your treatment options, including their goals and possible side effects, with your doctors to help make the decisions that best fit your needs. It’s also very important to ask questions if there’s anything you’re not sure about. Although the choice of treatment depends largely on the stage of the disease at the time of diagnosis, other factors that may influence your options are your age, your general health, your individual circumstances, and your preferences. Cervical cancer can affect your sex life and your ability to have children. These concerns should also be considered as you make treatment decisions. Be sure that you understand all the risks and side effects of the various treatments before making a decision.

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

- What Should You Ask Your Doctor About Cervical Cancer?[2]
- Fertility and Sexual Side Effects[3]
- Seeking a Second Opinion[4]

Thinking about taking part in a clinical trial

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they're not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials.

- Clinical Trials[5]

Considering complementary and alternative methods

You may hear about alternative or complementary methods that your doctor hasn't mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor's medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be harmful.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- Complementary and Alternative Medicine[6]

Help getting through cancer treatment

Your cancer care team will be your first source of information and support, but there are other resources for help when you need it. Hospital- or clinic-based support services are an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists.

- Find Support Programs and Services in Your Area[7]

Choosing to stop treatment or choosing no treatment at all

For some people, when treatments have been tried and are no longer controlling the

cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all. There are many reasons you might decide not to get cancer treatment, but it's important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- If Cancer Treatments Stop Working[8]
- Palliative or Supportive Care[9]

The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask him or her questions about your treatment options.

Surgery for Cervical Cancer

Many women with cervical cancer will have some type of surgery. Surgery can be used to:

- Help diagnose cervical cancer
- Help determine how far the cancer has spread
- Help treat the cancer (especially for earlier-stage cancers)

Several types of 'surgery' can be used to help treat cervical cancer, although some of these destroy cervical tissue (with cold or with a laser) rather than removing it.

Cryosurgery

A very cold metal probe is placed directly on the cervix. This kills the abnormal cells by

freezing them. This can be done in a doctor's office or clinic. After cryosurgery, you may have a lot of watery brown discharge for a few weeks.

Laser surgery

A focused laser beam, directed through the vagina, is used to vaporize (burn off) abnormal cells or to remove a small piece of tissue for study. This can be done in a doctor's office or clinic and is done under local anesthesia (numbing medicine).

Conization

A cone-shaped piece of tissue is removed from the cervix. This is done using a surgical or laser knife (cold knife cone biopsy) or using a thin wire heated by electricity (the loop electrosurgical, LEEP or LEETZ procedure). (See How are cervical cancers and pre-cancers diagnosed?[1] for more information.) After the procedure, the removed tissue is examined with a microscope. If the margins (outer edges) of the tissue contain cancer (or pre-cancer) cells (called positive margins), some cancer (or pre-cancer) may have been left behind, so further treatment is needed.

Simple (total) hysterectomy

This surgery removes the uterus (both the body of the uterus and the cervix) but not the structures next to the uterus (parametria and uterosacral ligaments). The vagina and pelvic lymph nodes are not removed. The ovaries and fallopian tubes are usually left in place unless there is another reason to remove them.

There are different ways to do a hysterectomy:

- **Abdominal hysterectomy:** The uterus is removed through a surgical incision in the front of the abdomen.
- **Vaginal hysterectomy:** The uterus is removed through the vagina.
- **Laparoscopic hysterectomy:** The uterus is removed using laparoscopy (sometimes called 'keyhole surgery'). A thin tube with a tiny video camera at the end (the laparoscope) is inserted into one or more very small surgical incisions to see inside of the abdomen and pelvis. Small instruments can be controlled through the tube, so the surgeon makes cuts and removes tissue through the tubes without making a large cut in the abdomen.
- **Laparoscopic-assisted vaginal hysterectomy:** The uterus, ovaries, and fallopian tubes are removed through a vaginal incision using the laparoscope, which makes

it easier for the doctor.
- **Robotic-assisted surgery:** In this approach, the laparoscopy is done with special tools attached to robotic arms that are controlled by the doctor to help perform precise surgery.

General or epidural (regional) anesthesia is used for all of these operations.

For a laparoscopic or vaginal hysterectomy, the hospital stay is usually 1 to 2 days, followed by a 2- to 3-week recovery period. A hospital stay of 3 to 5 days is common for an abdominal hysterectomy, and complete recovery takes about 4 to 6 weeks.

Possible side effects: Any type of hysterectomy results in infertility (inability to have children). Complications are unusual but could include excessive bleeding, wound infection, or damage to the urinary or intestinal systems.

Hysterectomy does not change a woman's ability to feel sexual pleasure. A woman does not need a uterus or cervix to reach orgasm. The area around the clitoris and the lining of the vagina remain as sensitive as before a hysterectomy. More information about managing the sexual side effects of cervical cancer treatment can be found in Sex and the Woman with Cancer.[2]

Radical hysterectomy

For this operation, the surgeon removes the uterus along with the tissues next to the uterus (the parametria and the uterosacral ligaments) and the upper part (about 1 inch) of the vagina next to the cervix. The ovaries and fallopian tubes are not removed unless there is some other medical reason to do so. More tissue is removed in a radical hysterectomy than in a simple one, so the hospital stay can be longer.

This surgery is usually done through alarge abdominal incision (also known as open surgery). Often, some pelvic lymph nodes are removed as well. (This procedure, known as **lymph node dissection**, is discussed later in this section.)

A radical hysterectomy can also be done using laparoscopy (keyhole surgery). (See the ‘Simple hysterectomy’ section for a description of laparoscopy.)

- **Laparoscopic-assisted radical vaginal hysterectomy** is a surgical approach that combines a radical vaginal hysterectomy with a laparoscopic pelvic lymph node dissection.
- The laparoscope can also make it easier to perform a radical hysterectomy through

the abdomen. When lymph nodes are removed in this abdominal procedure, this is called **laparoscopically assisted radical hysterectomy with lymphadenectomy**.

- **Robot-assisted laparoscopic surgery** is also sometimes used for radical hysterectomies. In this approach, the surgeon sits at a control panel to precisely move robotic arms that hold surgical tools.

Laparoscopic surgery can result in less pain, less blood loss during the operation, and a shorter hospital stay compared to open surgery. However, recent research has found that women with early stage cervical cancer who have open surgery tend to have a lower chance of the cancer coming back (recurring[3]), as well as a better chance of living longer, than women who have laparoscopic surgery. Laparoscopic surgery may still be an option for a small specific group of women with early stage cancer, but you should discuss your options carefully with your doctor.

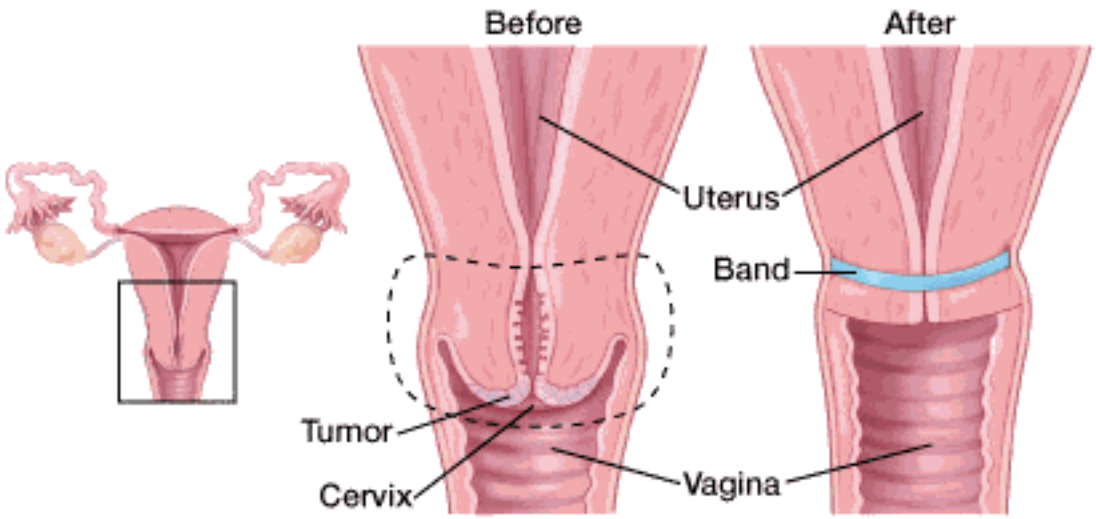
Possible side effects: Because the uterus is removed, this surgery results in infertility. Because some of the nerves to the bladder are removed, some women have problems emptying their bladder after this operation and may need a catheter for a time. Complications are unusual but could include excessive bleeding, wound infection, or damage to the urinary and intestinal systems.

Radical hysterectomy does not change a woman's ability to feel sexual pleasure. Although the vagina is shortened, the area around the clitoris and the lining of the vagina is as sensitive as before. A woman does not need a uterus or cervix to reach orgasm. When cancer has caused pain or bleeding with intercourse, the hysterectomy may actually improve a woman's sex life by stopping these symptoms. More information about managing the sexual side effects of cervical cancer treatment can be found in Sex and the Woman with Cancer[4].

Trachelectomy

Another procedure, known as a **radical trachelectomy**, allows women to be treated without losing their ability to have children. The operation is done either through the vagina or the abdomen, and is sometimes done using laparoscopy (keyhole surgery).

This procedure removes the cervix and the upper part of the vagina but not the body of the uterus. The surgeon then places a "purse-string" stitch to act as an artificial opening of the cervix inside the uterine cavity.



Radical Trachelectomy

The nearby lymph nodes are also removed using laparoscopy which may require another incision (cut). The operation is done either through the vagina or the abdomen.

After trachelectomy, some women are able to carry a pregnancy to term and deliver a healthy baby by cesarean section, although women who have had this surgery may have a higher risk of miscarriage.

Pelvic exenteration

This is a more extensive operation that may be used to treat recurrent cervical cancer. In this surgery, all of the same organs and tissues are removed as in a radical hysterectomy with pelvic lymph node dissection. (Lymph node dissection is discussed in the next section.) In addition, the bladder, vagina, rectum, and part of the colon may also be removed, depending on where the cancer has spread.

If your bladder is removed, you will need a new way to store and eliminate urine. This usually means using a short segment of intestine to function as a new bladder. The new bladder may be connected to the abdominal wall so that urine is drained periodically when the patient places a catheter into a urostomy (a small opening). Or urine may drain continuously into a small plastic bag attached to the front of the abdomen. For more information, see Urostomy: A Guide[5].

If the rectum and part of the colon are removed, a new way to eliminate solid waste must be created. This is done by attaching the remaining intestine to the abdominal wall so that fecal material can pass through a colostomy (a small opening) into a small plastic bag worn on the front of the abdomen (more information about colostomies can

be found in Colostomy: A Guide[6]). In some cases, it may be possible to remove the cancerous part of the colon (next to the cervix) and reconnect the colon ends so that no bags or external appliances are needed.

If the vagina is removed, a new vagina can be surgically created out of skin, intestinal tissue, or muscle and skin (myocutaneous) grafts.

Sexual impact of pelvic exenteration

Recovery from total pelvic exenteration takes a long time. Most women don't begin to feel like themselves again for about 6 months after surgery. Some say it takes a year or two to adjust completely.

Nevertheless, these women can lead happy and productive lives. With practice and determination, they can also have sexual desire, pleasure, and orgasms.

More information about managing the sexual side effects of cervical cancer treatment can be found in Sex and the Woman with Cancer[7].

Pelvic lymph node dissection

Cancer that starts in the cervix can spread to lymph nodes (pea-sized collections of immune system tissue) in the pelvis To check for lymph node spread, the surgeon might remove some of these lymph nodes. This procedure is known as a **lymph node dissection** or **lymph node sampling**. It is done at the same time as a hysterectomy or trachelectomy.

Removing lymph nodes can lead to fluid drainage problems in the leg. This can cause severe swelling in the leg, a condition called *lymphedema*. More information can be found in our section on Lymphedema[8].

Para-aortic lymph node sampling

If cancer is found in any pelvic lymph nodes during surgery, some of the lymph nodes along the aorta (the large artery in the abdomen) may be removed as well. This is called **para-aortic lymph node sampling**. Any tissue removed at surgery will be tested to see if the cancer has spread further than expected. If so, radiation therapy with or without chemotherapy may be recommended.

If surgery is not done, another way to check for lymph node spread is with an imaging test[9] (like MRI or PET/CT). Lymph nodes that are bigger than usual and/or light up on

PET scan are more likely to have cancer, so they might need to be biopsied.

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/detection-diagnosis-staging/how-diagnosed.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects/sexuality-for-women-with-cancer.html
3. www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html
4. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects/sexuality-for-women-with-cancer.html
5. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/ostomies/urostomy.html
6. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/ostomies/colostomy.html
7. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects/sexuality-for-women-with-cancer.html
8. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/lymphedema.html
9. www.cancer.org/treatment/understanding-your-diagnosis/tests/imaging-radiology-tests-for-cancer.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Radiation Therapy for Cervical Cancer

Radiation therapy uses high energy x-rays or radioactive particles to kill cancer cells. Radiation therapy may be used for cervical cancer:

- **As a part of the main treatment**. For some stages of cervical cancer, the preferred treatment is radiation alone or surgery followed by radiation. For other stages, radiation and chemo given together (called **concurrent chemoradiation**) is the preferred treatment. The chemo helps the radiation work better.
- **To treat cervical cancer that has spread or that has come back after treatment**. Radiation therapy may be used to treat cancers that have spread to other organs and tissues.

The two types of radiation therapy most often used to treat cervical cancer include:

- External beam radiation
- Brachytherapy

External beam radiation

One way to give radiation is to aim x-rays at the cancer from outside the body. This is called **external beam radiation therapy (EBRT).** Treatment is much like getting a regular x-ray, but the radiation dose is stronger.

Each radiation treatment lasts only a few minutes, but getting you into place for treatment usually takes longer. The procedure itself is painless.

When radiation is used as the main treatment for cervical cancer, EBRT is usually combined with [1]chemotherapy (called **concurrent chemoradiation**). Often, a low dose of the chemo drug called cisplatin, but other chemo drugs can be used as well. The radiation treatments are given 5 days a week for a total 6 to 7 weeks. The chemotherapy is given at scheduled times during the radiation. The schedule is determined by which drug is used.

EBRT can also be used by itself to treat areas of cancer spread or as the main treatment of cervical cancer in patients who can't tolerate chemoradiation.

Possible side effects of EBRT

[2]Side effects[3] of external beam radiation therapy for cervical cancer can include:

- Fatigue (tiredness)
- Upset stomach

- Diarrhea or loose stools (if radiation is given to the pelvis or abdomen)
- Nausea and vomiting
- Skin changes

Skin changes: As the radiation passes through the skin to the cancer, it can damage the skin cells. This can cause irritation ranging from mild, short-term redness to peeling. The skin may release fluid, which can lead to infection, so the area exposed to radiation must be carefully cleaned and protected.

- **Radiation cystitis:** Radiation to the pelvis can irritate the bladder (radiation cystitis), causing discomfort and an urge to urinate often.
- **Vaginal pain:** Radiation can make the vulva and vagina more sensitive and sore, and sometimes causes a discharge.
- **Menstrual changes:** Pelvic radiation can affect the ovaries, leading to menstrual changes and even early menopause
- **Low blood counts:** For example, anemia (low levels of red blood cells) can make you feel tired. Leukopenia (low levels of white blood cells increases the risks of serious infection.

When chemotherapy is given with radiation, the blood counts tend to be lower and fatigue and nausea tend to be worse. These side effects typically improve in the weeks after treatment is stopped.

Other, longer-term side effects are also possible with EBRT. These are described below.

Brachytherapy

Brachytherapy, or internal radiation therapy, puts a source of radiation in or near the cancer. This type of radiation only travels a short distance. The type of brachytherapy used most often to treat cervical cancer is known as **intracavitary brachytherapy**. The radiation source is placed in a device in the vagina (and sometimes in the cervix). This is often used in addition to EBRT as a part of the main treatment for cervical cancer.

There are two types of brachytherapy:

- **Low-dose rate (LDR) brachytherapy** is completed over a few days. During this time, the patient stays in bed in a private room in the hospital with instruments holding the radioactive material in place. While the radiation therapy is being given,

the hospital staff will care for you, but also take precautions to lessen their own radiation exposure.

- **High-dose rate (HDR) brachytherapy** is done as an outpatient over several treatments (often at least a week apart). For each high-dose treatment, the radioactive material is inserted for a few minutes and then removed. The advantage of HDR treatment is that you do not have to stay in the hospital or stay still for long periods of time.

To treat cervical cancer in women who have had a hysterectomy, the radioactive material is placed in a tube in the vagina.

To treat a woman who still has a uterus, the radioactive material can be placed in a small metal tube (called a **tandem**)that goes in the uterus, along with small round metal holders (**ovoids**) placed near the cervix. This is sometimes called tandem and ovoid treatment. Another option is called tandem and ring. For this, a round holder (like a disc) is placed close to the uterus. The choice of which one to use depends on what type of brachytherapy is planned.

Possible short-term side effects of brachytherapy

Since the radiation only travels a short distance with brachytherapy, the main effects of the radiation are on the cervix and the walls of the vagina. The most common side effect is irritation of the vagina. It may become red and sore, and there may be a discharge. The vulva may become irritated as well.

Brachytherapy can also cause many of the same side effects as EBRT, such as fatigue, diarrhea, nausea, irritation of the bladder, and low blood counts. Often brachytherapy is given right after external beam radiation (before the side effects can go away), so it can be hard to know which type of treatment is causing the side effect.

Long-term side effects of radiation therapy

Vaginal stenosis: Both EBRT and brachytherapy can cause scar tissue to form in the vagina. The scar tissue can make the vagina narrower (called vaginal stenosis), less able to stretch, or even shorter, which can make vaginal sex painful.

A woman can help prevent this problem by stretching the walls of her vagina several times a week, either by having sex or by using a vaginal dilator (a plastic or rubber tube used to stretch out the vagina). For more information, see *Sex and Women With Cancer.*

Vaginal dryness: Vaginal dryness and painful sex can be long-term side effects from radiation (both brachytherapy and EBRT). Estrogens used locally may help with vaginal dryness and changes to the vaginal lining, especially if radiation to the pelvis damaged the ovaries, causing early menopause. These hormones are typically applied into the vagina and absorbed into the genital area, rather than taken by mouth. They come in gel, cream, ring, and tablet forms. For more information, see *Sex and Women With Cancer.*

Weakened bones: Radiation to the pelvis can weaken the bones, leading to fractures. Hip fractures are the most common, and might occur 2 to 4 years after radiation. Bone density tests are recommended to monitor the risk of fracture.

Swelling of the leg(s): If pelvic lymph nodes are treated with radiation, it can lead to fluid drainage problems in the leg. This can cause severe swelling in the leg, a condition called lymphedema. More information about lymphedema can be found in our section on Lymphedema

If you are having side effects from radiation treatment, discuss them with your cancer care team.

It is important to know that smoking increases the side effects from radiation and can make treatment less effective. If you smoke, you should stop.

For more information, see [4]Radiation Therapy[5].

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html
2. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Chemotherapy for Cervical Cancer

Chemotherapy (chemo) uses anti-cancer drugs that are injected into a vein or given by mouth. These drugs enter the bloodstream and can reach all areas of the body, making this treatment useful for killing cancer cells in most parts of the body. Chemo is often given in cycles, with each period of treatment followed by a recovery period. There are a few situations in which chemo may be recommended for cervical cancer.

As a part of the main treatment for cervical cancer

For some stages of cervical cancer, the preferred treatment is radiation and chemo given together (called concurrent chemoradiation). The chemo helps the radiation work better. Options for concurrent chemoradiation include:

- Cisplatin given weekly during radiation. This drug is given into a vein (IV) about 4 hours before the radiation appointment.
- Cisplatin plus 5-fluorouracil (5-FU) given every 4 weeks during radiation.

Sometimes chemo is also given (without radiation) before and/or after chemoradiation.

To treat cervical cancer that has spread or come back after treatment

Chemo may be used to treat cancers that have spread to other organs and tissues. It can also be helpful when cancer comes back after treatment with chemoradiation.

The chemo drugs most often used to treat advanced cervical cancer include:

- Cisplatin
- Carboplatin
- Paclitaxel (Taxol®),
- Topotecan
- Gemcitabine (Gemzar®)

Combinations of these drugs are often used.

Some other drugs can be used as well, such as docetaxel (Taxotere®), ifosfamide (Ifex®), 5-fluorouracil (5-FU), irinotecan (Camptosar®), and mitomycin.

The targeted drug bevacizumab (Avastin®) may be added to chemo. This is discussed in the section about targeted therapy.

Side effects of chemotherapy for cervical cancer

Chemo drugs kill cancer cells but also damage some normal cells, which can lead to certain side effects. Side effects depend on the type and dose of the drugs and the length of time you are treated. Common side effects[1] of chemotherapy can include:

- Nausea and vomiting
- Loss of appetite
- Loss of hair
- Mouth sores
- Fatigue (tiredness)

Because chemotherapy can damage the blood-producing cells of the bone marrow, the blood cell counts might become low[2]. This can result in:

- An increased chance of infection (from a shortage of white blood cells)
- Bleeding or bruising after minor cuts or injuries (because of a shortage of blood platelets)
- Shortness of breath (due to low red blood cell counts)

When chemo is given with radiation, the side effects are often more severe. The nausea, fatigue, and problems with low blood counts are often worse. Diarrhea can also be worse if chemo is given at the same time as radiation.

Your health care team will watch for side effects and can give you medicines to help prevent them or treat them to help you feel better. For example, you can be given drugs to help prevent or reduce nausea and vomiting.

Menstrual changes: For younger women who have not had their uterus removed as a part of treatment, changes in menstrual periods are a common side effect of chemo. But even if your periods stop while you are on chemo, you might still be able to get pregnant. Getting pregnant while receiving chemo is not safe, as it could lead to birth defects and interfere with treatment. This is why it’s important that women who are pre-menopausal before treatment and are sexually active discuss with their doctor the options for birth control. Patients who have finished treatment (like chemo) can often go on to have children, but it's important to talk to your doctor about when it is safe to do so.

Premature menopause (not having any more menstrual periods) and infertility (not being able to become pregnant) may occur and may be permanent. Some chemo drugs are more likely to cause this than others. The older a woman is when she gets chemo, the more likely it is that she will become infertile or go through menopause as a result. If this happens, there is an increased risk of bone loss and osteoporosis. Medicines can treat or help prevent problems with bone loss.

Neuropathy: Some drugs used to treat cervical cancer, including paclitaxel and cisplatin, can damage nerves[3] outside of the brain and spinal cord. The injury can sometimes lead to symptoms like numbness, pain, burning or tingling sensations, sensitivity to cold or heat, or weakness, mainly in the hands and feet. This called peripheral neuropathy. In most cases this gets better or even goes away once treatment is stopped, but it might last a long time in some women.

Increased risk of leukemia: Very rarely, certain chemo drugs can permanently damage the bone marrow, leading to blood cancers like myelodysplastic syndromes[4] or even acute myeloid leukemia[5]. If this is going to happen, it is usually within 10 years after treatment. In most women, the benefits of chemo in treating the cancer are likely to far exceed the risk of this serious but rare complication[6].

Other side effects are also possible. Some of these are more common with certain chemo drugs. Your cancer care team will tell you about the possible side effects of the specific drugs you are getting.

Many side effects are short-term and go away after treatment is finished, but some can last a long time or even be permanent. It's important to tell your health care team if you have any side effects, as there are often ways to lessen them. For example, you can be given drugs to help prevent or reduce nausea and vomiting.

For more information, please see the Chemotherapy[7] section of our website.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/low-blood-counts.html
3. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/peripheral-neuropathy.html
4. www.cancer.org/cancer/myelodysplastic-syndrome.html
5. www.cancer.org/cancer/acute-myeloid-leukemia.html
6. www.cancer.org/treatment/treatments-and-side-effects/physical-side-

effects/second-cancers-in-adults.html
7. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: September 19, 2014 Last Revised: January 29, 2016

Targeted Therapy for Cervical Cancer

As researchers have learned more about the changes in cancer cells, they have been able to develop newer drugs that specifically target these changes. These targeted drugs work differently from standard chemotherapy (chemo) drugs and often have different side effects.

For example, for tumors to grow, they must form new blood vessels to keep them nourished. This process is called **angiogenesis**. Some targeted drugs block this new blood vessel growth and are called **angiogenesis inhibitors**.

Bevacizumab (Avastin®) is an angiogenesis inhibitor that can be used to treat advanced cervical cancer. It is a monoclonal antibody (a man-made version of a specific immune system protein) that targets vascular endothelial growth factor (VEGF), a protein that helps new blood vessels to form.

This drug is often used with chemo for a time. Then, if the cancer responds, the chemo may be stopped and the bevacizumab given by itself until the cancer starts growing again.

Possible side effects of targeted therapy

The possible side effects of this drug are different from those of chemotherapy drugs. Some of the more common side effects can include:

- High blood pressure
- Feeling tired
- Loss of appetite

Less common but more serious side effects can include:

- Problems with bleeding
- Blood clots
- Wound healing

A rare but serious side effect is the formation of an abnormal connection (called a fistula) between the vagina and part of the colon or intestine.

Targeted Cancer Therapy[1] has more information about the different kinds of drugs considered targeted therapy.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Immunotherapy for Cervical Cancer

Immunotherapy is the use of medicines to stimulate a person's own immune system to recognize and destroy cancer cells more effectively. Immunotherapy can be used to treat cervical cancer that has spread or come back (recurred).

Immune checkpoint inhibitors

An important part of the immune system is its ability to keep itself from attacking the body's normal cells. To do this, it uses “checkpoints” – molecules on immune cells that need to be turned on (or off) to start an immune response. Cancer cells sometimes use these checkpoints to avoid being attacked by the immune system. But newer drugs that target these checkpoints hold a lot of promise as cancer treatments.

Pembrolizumab (Keytruda) targets PD-1, a protein on immune system cells called *T cells* that normally helps keep these cells from attacking other cells in the body. By blocking PD-1, these drugs boost the immune response against cancer cells. This can shrink some tumors or slow their growth.

Pembrolizumab can be used in women with certain types of cervical cancer whose cancer starts growing again after chemotherapy or that has spread.

This immunotherapy drug is given as an intravenous (IV) infusion every 3 weeks.

Possible side effects

Side effects of these drugs can include fatigue, fever, nausea, headache, skin rash, loss of appetite, constipation, joint/muscle pain, and diarrhea.

Other, more serious side effects occur less often. These drugs work by basically removing the brakes on the body’s immune system. Sometimes the immune system starts attacking other parts of the body, which can cause serious or even life-threatening problems in the lungs, intestines, liver, hormone-making glands, kidneys, or other organs.

It’s very important to report any new side effects to your health care team right away. If you do have a serious side effects, treatment may need to be stopped and you may be given high doses of corticosteroids to suppress your immune system.

More information about immunotherapy

To learn more about how drugs that work on the immune system are used to treat cancer, see Cancer Immunotherapy[1].

To learn about some of the side effects listed here and how to manage them, see Managing Cancer-related Side Effects[2].

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/treatment-types/immunotherapy.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: June 19, 2018 Last Revised: June 19, 2018

Treatment Options for Cervical Cancer, by Stage

The stage of a cervical cancer is the most important factor in choosing treatment. But other factors can also affect your treatment options, including the exact location of the cancer within the cervix, the type of cancer (squamous cell or adenocarcinoma), your age and overall health, and whether you want to have children.

Stage 0 (carcinoma in situ)

Although the AJCC staging system classifies carcinoma in situ (CIS) as the earliest form of cervical cancer, doctors often think of it as a pre-cancer. That is because the cancer cells in CIS are only in the surface layer of the cervix; they have not grown into deeper layers of cells.

All cases of CIS can be cured with the right treatment. However, pre-cancerous changes can sometimes recur (come back) in the cervix or vagina, so it’s very important for your doctor to watch you closely after treatment. This includes follow-up with regular Pap tests and in some instances with colposcopy.

- For information about work-up and treatment of abnormal Pap test results and cervical pre-cancers other than CIS, see Cervical Cancer Prevention and Early Detection[1].

Treatment options for squamous cell carcinoma in situ include:

- Cryosurgery
- Laser surgery
- Loop electrosurgical excision procedure (LEEP/LEETZ)
- Cold knife conization
- Simple hysterectomy (as the first treatment or if the cancer returns after other treatments)

Treatment options for adenocarcinoma in situ include:

- Hysterectomy
- Cone biopsy (a possible option for women who wish to have children). The cone specimen must have no cancer cells at the edges, and the woman must be closely watched after treatment. Once the woman has finished having children, a hysterectomy is recommended.

Stage IA1

Treatment for this stage depends on whether or not you want to continue to be able to have children (maintain fertility) and whether or not the cancer has grown into blood or lymph vessels (called lymphovascular invasion).

Treatment options for women who want to maintain fertility:

A **cone biopsy** is the preferred procedure for women who want to have children after the cancer is treated.

- If the edges of the cone don’t contain cancer cells (called negative margins), the woman can be watched closely without further treatment as long as the cancer doesn’t come back.

If the edges of the cone biopsy have cancer cells (called positive margins), then cancer

may have been left behind. This can be treated with a repeat cone biopsy or a radical trachelectomy (removal of the cervix and upper vagina). A radical trachelectomy is preferred if the cancer has grown into blood or lymph vessels.

Treatment options for women who don't want to maintain fertility:

- A simple (total) hysterectomy may be an option if the cancer shows no lymphovascular invasion.
- If the cancer has grown into blood or lymph vessels, you might need a radical hysterectomy along with removal of the pelvic lymph nodes.

Stage IA2

Treatment for this stage depends in part on whether or not you want to continue to be able to have children (maintain fertility).

Treatment options for women who want to maintain fertility:

- Cone biopsy with removal of pelvic lymph nodes (pelvic lymph node dissection)
- Radical trachelectomy with pelvic lymph node dissection

Treatment options for women who don't want to maintain fertility:

- External beam radiation therapy (EBRT) to the pelvis plus brachytherapy
- Radical hysterectomy with removal of pelvic lymph nodes and sampling of the para-aortic lymph nodes

If none of the lymph nodes are found to have cancer, radiation may still be discussed as an option if the tumor is large, if the tumor has grown into blood or lymph vessels, or if the tumor is invading the surrounding connective tissue that supports organs such as the uterus, bladder, vagina (the stroma).

If the cancer has spread to the tissues next to the uterus (called the parametria) or to any lymph nodes, or if the tissue removed has positive margins, radiation (EBRT) with chemotherapy is usually recommended. The doctor may also advise brachytherapy after the combined chemo and radiation are done.

Stages IB and IIA

The main treatment options are surgery, radiation, or radiation given with chemo (concurrent chemoradiation).

Stages IB1 and IIA1

Treatment options for women who want to maintain fertility:

- Radical trachelectomy with pelvic lymph node dissection

Treatment options for women who don't want to maintain fertility:

- Radical hysterectomy with removal of lymph nodes in the pelvis and some lymph nodes from the para-aortic area
- If none of the lymph nodes are found to have cancer, radiation may still be discussed as an option if the tumor is large, if the tumor has grown into blood or lymph vessels, or if the tumor is invading the surrounding connective tissue that supports organs such as the uterus, bladder, vagina (the stroma).
- If the cancer has spread to the tissues next to the uterus (called the parametria) or to any lymph nodes, or if the tissue removed has positive margins, radiation (EBRT) with chemotherapy is usually recommended. The doctor may also advise brachytherapy after the combined chemo and radiation are done.
- Radiation using both brachytherapy and external beam radiation therapy may be an option if a woman is not healthy enough for surgery or if she decides they do not want surgery
- Chemotherapy (chemo) may be given with the radiation (concurrent chemoradiation).

Stages IB2 and IIA2

Treatment options:

- Chemoradiation: This is usually the standard treatment. The chemo may be cisplatin or cisplatin plus fluorouracil. The radiation therapy includes both external beam radiation and brachytherapy.
- Radical hysterectomy with pelvic lymph node dissection and para-aortic lymph node sampling: If cancer cells are found in the removed lymph nodes, or in the edges of the tissue removed (positive margins), surgery may be followed by

radiation therapy, which is often given with chemo (concurrent chemoradiation).

Some doctors recommend radiation given with chemotherapy first followed by a hysterectomy.

Stages IIB, III, and IVA

Treatment options:

Chemoradiation: The chemo may be cisplatin or cisplatin plus fluorouracil. The radiation therapy includes both external beam radiation and brachytherapy.

Stage IVB

At this stage, the cancer has spread out of the pelvis to other areas of the body. Stage IVB cervical cancer is not usually considered curable. Treatment options include radiation therapy and/or chemo to try to slow the growth of the cancer or help relieve symptoms . Most standard chemo regimens include a platinum drug (cisplatin or carboplatin) along with another drug such as paclitaxel (Taxol), gemcitabine (Gemzar), or topotecan. The targeted drug bevacizumab (Avastin) may be added to chemo or immunotherapy alone with pembrolizumab (Keytruda®) may also be an option.

Clinical trials[2] are testing other combinations of chemo drugs, as well as some other experimental treatments.

Recurrent cervical cancer

Cancer that comes back after treatment is called recurrent cancer. Cancer can come back locally (in or near where it first started, such as the cervix, uterus or nearby the pelvic organs), or it can come back in distant areas (such as the lungs or bone).

If the cancer has recurred in the pelvis only, extensive surgery (such as pelvic exenteration) may be an option for some patients, and offers the best chance for possibly curing the cancer (although it can have major side effects). Radiation therapy (sometimes along with chemo) might be another option. If not, chemo, immunotherapy, or targeted therapy may be used to slow the growth of the cancer or help relieve symptoms, but they aren’t expected to cure the cancer.

No matter which type of treatment your doctor recommends, it's important to understand the goal of treatment (to try to cure the cancer, control its growth, or relieve symptoms),

as well as its possible side effects and limitations. For example, sometimes chemo can improve your quality of life, and other times it might diminish it. You need to discuss this with your doctor.

New treatments that may benefit patients with distant recurrence of cervical cancer are being evaluated in clinical trials. Clinical Trials[3] may help if you are thinking about participating in a clinical trial.

Cervical cancer in pregnancy

A small number of cervical cancers are found in pregnant women. Most of these (70%) are stage I cancers. The treatment plan during pregnancy is determined by:

- Tumor size
- If nearby lymph nodes have cancer
- How far along the pregnancy is
- The specific type of cervical cancer

If the cancer is at a very early stage, such as carcinoma in situ (Stage 0) or stage IA, most doctors believe it is safe to continue the pregnancy to term and have treatment several weeks after birth. Surgery options after birth for early-stage cancers include a hysterectomy, radical trachelectomy, or a cone biopsy.

If the cancer is stage IB or higher, then you and your doctor must decide whether to continue the pregnancy. If not, treatment would be radical hysterectomy and/or radiation. Sometimes chemotherapy can be given during the pregnancy (in the second or third trimester) to shrink the tumor.

If you decide to continue the pregnancy, the baby should be delivered by cesarean section as soon as it is able to survive outside the womb. More advanced cancers typically need be treated immediately.

The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask him or her questions about your treatment options.

Hyperlinks

1. www.cancer.org/cancer/cervical-cancer/prevention-and-early-detection.html
2. www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html
3. www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Written by

The American Cancer Society medical and editorial content team (www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

After Cervical Cancer Treatment

Living as a Cancer Survivor

For many people, cancer treatment often raises questions about next steps as a survivor.

- Living As A Cervical Cancer Survivor

Cancer Concerns After Treatment

Treatment may remove or destroy the cancer, but it is very common to worry about risk for another cancer, cancer coming back, or treatment no longer working.

- Can I Get Another Cancer After Having Cervical Cancer?
- If Treatment for Cervical Cancer Stops Working

Living As A Cervical Cancer Survivor

For some women with cervical cancer, treatment may remove or destroy the cancer. Completing treatment can be both stressful and exciting. You'll be relieved to finish treatment, yet it's hard not to worry about the cancer coming back[1]. This is very common if you've had cancer.

For other women, the cancer may never go away completely. These women may get regular treatments with chemotherapy[2], radiation therapy[3], or other therapies to try to

help keep the cancer in check. Learning to live with cancer that does not go away can be difficult and very stressful.

Life after cervical cancer means returning to some familiar things and also making some new choices.

Ask your doctor for a survivorship care plan

Talk with your doctor about developing a survivorship care plan for you. This plan might include:

- A suggested schedule for follow-up exams and tests
- A schedule for other tests you might need in the future, such as early detection (screening) tests for other types of cancer, or tests to look for long-term health effects from your cancer or its treatment
- A list of possible late- or long-term side effects from your treatment, including what to watch for and when you should contact your doctor
- Diet and physical activity suggestions

Typical follow-up schedules after cervical cancer

Even if you have completed treatment, you will probably have follow-up visits with your doctor for many years. It's very important to go to all of your follow-up appointments. During these visits, your doctors will ask if you are having any problems and may do exams and lab tests or imaging tests to look for signs of cancer or treatment side effects[4].

Some treatment side effects might last a long time or might not even show up until years after you have finished treatment. Your doctor visits are a good time to ask questions and talk about any changes or problems you notice or concerns you have.

To some extent, the frequency of follow up visits and tests will depend on the stage[5] of your cancer and the chance of it coming back.

Doctor visits

Your doctor will probably recommend you have a physical exam every 3 to 6 months for the first couple of years after treatment, then every 6 months or so for the next few years. People who were treated for early-stage cancers may need exams less often.

Most doctors recommend that women treated for cervical cancer keep getting regular Pap tests no matter how they were treated (surgery or radiation). Although cells for a Pap test are normally from the cervix, if you no longer have a cervix (because you had a trachelectomy or hysterectomy), the cells will be taken from the upper part of the vagina.

Imaging tests

Whether or not your doctor recommends imaging tests will depend on the stage of your cancer and other factors. CT scans may be done if you have worrisome symptoms of the cancer coming back.

Survivors of cervical cancer should also follow the American Cancer Society guidelines for the early detection of cancer, such as those for breast, lung, and colorectal cancer.

Keeping health insurance and copies of your medical records

Even after treatment, it's very important to keep health insurance. Tests and doctor visits cost a lot, and even though no one wants to think of their cancer coming back, this could happen.

At some point after your cancer treatment, you might find yourself seeing a new doctor who doesn't know about your medical history. It's important to keep copies of your medical records to give your new doctor the details of your diagnosis and treatment. Learn more in Keeping Copies of Important Medical Records[6].

Can I lower my risk of cervical cancer progressing or coming back?

If you have (or have had) cervical cancer, you probably want to know if there are things you can do that might lower your risk of the cancer growing or coming back, such as exercising, eating a certain type of diet, or taking nutritional supplements. At this time, it's not yet clear if those things will help.

It is known that smoking is linked to an increased risk of cervical cancer. While it's not clear if smoking can affect cervical cancer growth or recurrence, it is still helpful to stop smoking to decrease your risk of getting another smoking related cancer (see Can I get another cancerafter having cervical cancer?). Not smoking can also help you tolerate chemotherapy and radiation better and decrease further damage to the cells of the cervix or cervical area.

Adopting other healthy behaviors such as eating well, getting regular physical activity[7], and staying at a healthy weight might help, but no one knows for sure. However, we do know that these types of changes can have positive effects on your health that can extend beyond your risk of cervical cancer or other cancers.

About dietary supplements

So far, no dietary supplements (including vitamins, minerals, and herbal products) have been shown to clearly help lower the risk of cervical cancer progressing or coming back. This doesn't mean that no supplements will help, but it's important to know that none have been proven to do so.

Dietary supplements are not regulated like medicines in the United States – they do not have to be proven effective (or even safe) before being sold, although there are limits on what they're allowed to claim they can do. If you're thinking about taking any type of nutritional supplement, talk to your health care team. They can help you decide which ones you can use safely while avoiding those that might be harmful.

Hyperlinks

1. www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html
3. www.cancer.org/cancer/cervical-cancer/detection-diagnosis-staging/staged.html
4. www.cancer.org/treatment/finding-and-paying-for-treatment/understanding-health-insurance/managing-your-health-insurance/keeping-health-insurance-records-when-someone-has-cancer.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

Can I Get Another Cancer After Having Cervical Cancer?

Cancer survivors can be affected by a number of health problems, but often a major concern is facing cancer again. Cancer that comes back after treatment is called a recurrence. But some cancer survivors may develop a new, unrelated cancer later. This is called a second cancer.

Unfortunately, being treated for cervical cancer doesn't mean you can't get another cancer. Women who have had cervical cancer can still get the same types of cancers that other women get. In fact, they might be at higher risk for certain types of cancer, including:

- Cancers of the mouth and throat[1]
- Cancer of the larynx (voice box)[2]
- Anal cancer[3]
- Acute myeloid leukemia[4]
- Vulvar cancer[5]
- Vaginal cancer[6]
- Lung cancer[7]
- Cancers of the bladder and ureter[8]
- Stomach cancer[9]
- Colorectal cancer[10]
- Pancreas cancer[11]

Many of these cancers are linked to smoking[12] and/or infection with the human papilloma virus (HPV)[13], which are also strongly linked to cervical cancer.

The increased risks of acute myeloid leukemia (AML) and cancers of the rectum, bladder, and soft tissue seem to be linked to treatment with radiation.

Can I lower my risk of getting a second cancer?

There are steps you can take to lower your risk and stay as healthy as possible. For example, women who have had cervical cancer should do their best to stay away from tobacco products. Smoking might further increase the risk of some of the second cancers that are more common after cervical cancer.

To help maintain good health, cervical cancer survivors should also:

- Get to and stay at a healthy weight[14]
- Keep physically active
- Eat a healthy diet[15], with an emphasis on plant foods
- Limit alcohol[16] to no more than 1 drink per day

These steps may also lower the risk of some other health problems.

See Second Cancers in Adults[17] for more information about causes of second cancers.

Getting emotional support

Some amount of feeling depressed, anxious, or worried is normal when cervical cancer is a part of your life. Some women are affected more than others. But everyone can benefit from help and support from other people, whether friends and family, religious groups, support groups, professional counselors, or others. Learn more in Coping With Cancer.[18]

Hyperlinks

1. www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer.html
2. www.cancer.org/cancer/laryngeal-and-hypopharyngeal-cancer.html
3. www.cancer.org/cancer/anal-cancer.html
4. www.cancer.org/cancer/acute-myeloid-leukemia.html
5. www.cancer.org/cancer/vulvar-cancer.html
6. www.cancer.org/cancer/vaginal-cancer.html
7. www.cancer.org/cancer/lung-cancer.html
8. www.cancer.org/cancer/bladder-cancer.html
9. www.cancer.org/cancer/stomach-cancer.html
10. www.cancer.org/cancer/colon-rectal-cancer.html
11. www.cancer.org/cancer/pancreatic-cancer.html
12. www.cancer.org/cancer/cancer-causes/tobacco-and-cancer.html
13. www.cancer.org/cancer/cancer-causes/infectious-agents/hpv.html
14. /ssLINK/body-weight-and-cancer-toc.html
15. /ssLINK/diet-and-physical-activity.html
16. /cancer/cancer-causes/diet-physical-activity/alcohol-use-and-cancer.html

17. /ssLINK/second-cancers-caused-by-cancer-treatment-toc.html
18. www.cancer.org/treatment/treatments-and-side-effects/emotional-side-effects.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: November 16, 2016 Last Revised: December 5, 2016

If Treatment for Cervical Cancer Stops Working

If cancer keeps growing or comes back after one kind of treatment, it is possible that another treatment plan might still cure the cancer, or at least shrink it enough to help you live longer and feel better. But when a person has tried many different treatments and has not gotten any better, the cancer tends to become resistant to all treatment. If this happens, it's important to weigh the possible limited benefits of a new treatment against the possible downsides. Everyone has their own way of looking at this.

This is likely to be the hardest part of your battle with cancer when you have been through many medical treatments and nothing's working anymore. Your doctor might offer you new options, but at some point you may need to consider that treatment is not likely to improve your health or change your outcome or survival.

If you want to continue to get treatment for as long as you can, you need to think about the odds of treatment having any benefit and how this compares to the possible risks and side effects[1]. In many cases, your doctor can estimate how likely it is the cancer will respond to treatment you are considering. For instance, the doctor may say that more chemo or radiation might have about a 1% chance of working. Some people are still tempted to try this. But it is important to think about and understand your reasons for choosing this plan.

No matter what you decide to do, you need to feel as good as you can. Make sure you are asking for and getting treatment for any symptoms you might have, such as nausea or pain[2]. This type of treatment is called palliative care[3].

Palliative care helps relieve symptoms, but is not expected to cure the disease. It can be given along with cancer treatment, or can even be cancer treatment. The difference is its purpose. The main purpose of palliative care is to improve the quality of your life, or help you feel as good as you can for as long as you can. Sometimes this means using drugs to help with symptoms like pain or nausea. Sometimes, though, the treatments used to control your symptoms are the same as those used to treat cancer. For instance, radiation might be used to help relieve bone pain caused by cancer that has spread to the bones. Or chemo might be used to help shrink a tumor and keep it from blocking the bowels. But this is not the same as treatment to try to cure the cancer.

At some point, you may benefit from hospice care. This is special care that treats the person rather than the disease; it focuses on quality rather than length of life. Most of the time, it is given at home. Your cancer may be causing problems that need to be managed, and hospice focuses on your comfort. You should know that while getting hospice care often means the end of treatments such as chemo and radiation, it doesn't mean you can't have treatment for the problems caused by your cancer or other health conditions. In hospice the focus of your care is on living life as fully as possible and feeling as well as you can at this difficult time. You can learn more in Hospice Care[4] and *Nearing the End of Life*[5].

Staying hopeful is important, too. Your hope for a cure may not be as bright, but there is still hope for good times with family and friends times that are filled with happiness and meaning. Pausing at this time in your cancer treatment gives you a chance to refocus on the most important things in your life. Now is the time to do some things you've always wanted to do and to stop doing the things you no longer want to do. Though the cancer may be beyond your control, there are still choices you can make.

Hyperlinks

1. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html
2. www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/pain.html
3. www.cancer.org/treatment/treatments-and-side-effects/palliative-care.html
4. www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team/hospice-care.html
5. www.cancer.org/treatment/end-of-life-care/nearing-the-end-of-life.html

References

See all references for Cervical Cancer (www.cancer.org/cancer/cervical-cancer/references.html)

Last Medical Review: September 19, 2014 Last Revised: January 29, 2016

Written by

The American Cancer Society medical and editorial content team (www.cancer.org/cancer/acs-medical-content-and-news-staff.html)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

cancer.org | 1.800.227.2345