



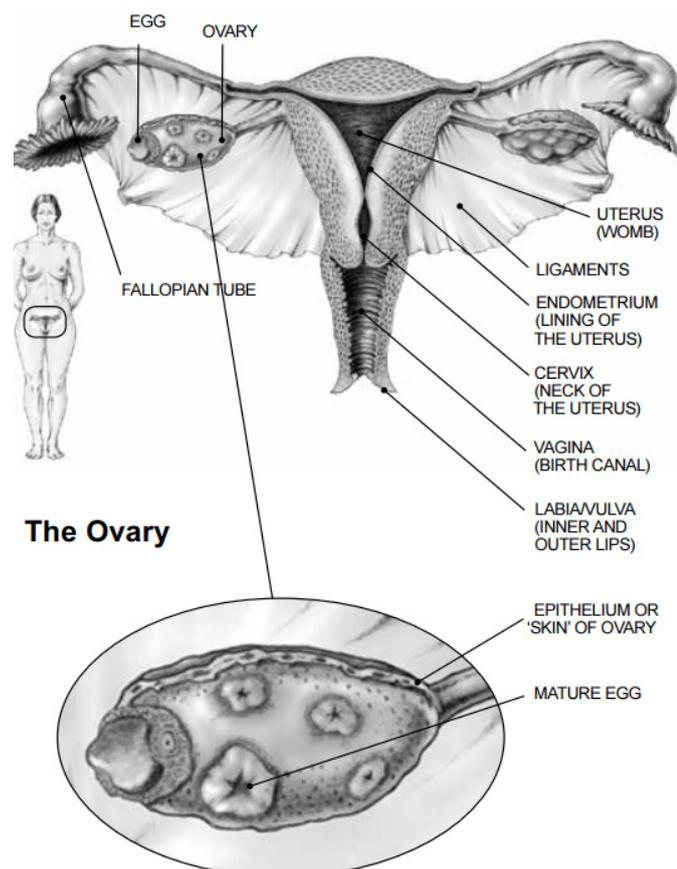
This information sheet has been written to provide you with information about cervical cancer (cancer of the cervix). This resource explains the different types of cervical cancer, its diagnosis, staging, treatment and side effects.

The cervix

The cervix is at the lower part of the uterus (womb), which extends into the vagina. The cervix is sometimes called the neck of the womb. There is a small opening in the cervix, the cervical canal, which leads through the cervix into the main part of the uterus.

The cervix produces some of the moistness that helps lubricate the vagina. It also produces the mucus that helps sperm travel up to the fallopian tubes to fertilise an egg from the ovary. The cervix holds the baby in the uterus during pregnancy. During labour, the cervix opens to allow the baby to be born.

The female reproductive system



Cervical smear test

The New Zealand Cervical Screening Programme recommends cervical smear tests every three years from age 20 to 70 if you have ever been sexually active. This is currently being reviewed and changes are likely in 2018.

Women who have had abnormal changes may need to have more frequent tests for a period of time. Cervical smear tests can detect abnormal cells that may one day become cancerous. These changes are known as dysplasia.

Dysplasia

Dysplasia describes abnormal changes in the cells ('building blocks' of the body) of the cervix. These are not cancerous, but could develop into cancer if not treated. Dysplasia can be categorised as:

- Low-grade squamous intraepithelial lesions (LSIL) - minor changes that normally go away within 12 months.
- High-grade squamous intraepithelial lesions (HSIL) - more serious changes that require further investigation and sometimes, treatment. These changes may also be called cervical intraepithelial neoplasia (CIN).

CIN is graded into CIN I, CIN II and CIN III: that is, mild, moderate and severe cervical cell changes. Sometimes, the term 'carcinoma in situ' is used to describe CIN III (this is a high-grade change).

Tests to diagnose dysplasia and cervical cancer

Colposcopy and cervical biopsy

Colposcopy gives a magnified view of the cervix. It uses an instrument called a colposcope, which is like a microscope on a stand. A colposcopy can be done in the doctor's room and takes only a few minutes.

Sometimes, a cervical biopsy is taken at the same time. A biopsy can cause some bleeding or other discharge, but it usually heals quickly.

If the biopsy shows abnormal cells on the surface of the cervix, you may need to have a cone biopsy or loop excision. This removes a larger and deeper area of tissue from the cervix. Sometimes, it removes all the abnormal cells and no further treatment is needed. You will usually have a general anaesthetic. You may be treated as a day patient or stay overnight in hospital.

Treatment for dysplasia

In mild cases, you may need more frequent cervical smear tests to watch that the cells return to normal. In more severe cases, the abnormal cells may be removed using loop excision. This treatment can cause temporary cramping or other pain, bleeding or a watery discharge for several weeks.

Cervical cancer

If you're diagnosed with cervical cancer, there are more tests that will be done to work out the type and stage of your cancer. There are two main types of cervical cancer:

- **Squamous cell carcinoma** - the most common type of cervical cancer. It starts in the 'skin-like' cells that cover the outer surface of the cervix at the top of the vagina.
- **Adenocarcinoma** - a less common type of cervical cancer. It starts in the glandular cells in the cervical canal.

Cervical cancer may be micro-invasive or invasive.

- **Micro-invasive cervical cancer** - This is when cancer cells have just broken through the surface layer of the skin of the cervix.
- **Invasive cervical cancer** - This is when cancer cells have spread from the surface skin of the cervix into the deeper tissues of the cervix. Invasive cervical cancer may also spread to parts of the vagina, lymph nodes or other pelvic tissues.

How common is cervical cancer?

In New Zealand, about 150 women are diagnosed with cervical cancer each year.

Signs and symptoms of cervical cancer

Early changes in the cells of the cervix don't usually cause symptoms, which is why doctors encourage women to have regular cervical smear tests. If early cell changes develop into cervical cancer, the most common signs include:

- vaginal bleeding between periods
- bleeding after intercourse
- pain during intercourse
- unusual vaginal discharge
- vaginal bleeding after menopause
- excessive tiredness
- leg pain or swelling
- lower back pain.

All these symptoms are common to many conditions and may not mean you have cervical cancer. However, if you have these symptoms, have them checked by your doctor.

Causes of cervical cancer

Some factors seem to put some women at a higher risk of cervical cancer. These include:

- Human Papilloma Virus (HPV)

Almost everyone is infected with HPV at some stage in their life. Most cases of HPV resolve (improve) without treatment and have no ill effects. Most women who have HPV do not ever show signs of abnormal cell changes. However, in some women it can cause cell changes that lead to dysplasia. If untreated, they may become cancer. A vaccine has now been developed that protects against the types of HPV most commonly linked to cervical cancer. The vaccine is most beneficial if given to young girls before they are exposed to HPV, that is, before they start having sex.

- Smoking
- Daughters of women who used the drug diethylstilboestrol (DES) during pregnancy to prevent a miscarriage. The use of this drug has declined since the 1940s and 1950s.

Tests to diagnose cervical cancer

Examination under anaesthetic (EUA), cystoscopy and proctosigmoidoscopy. These tests check whether the cancer has spread to other organs in your abdomen. You will be admitted to hospital, usually as a day patient, for an extensive physical examination.

Magnetic resonance imaging (MRI)

This test uses magnetism to build up pictures of the organs in your abdomen.

Computerised tomography (CT) scan

A CT scan is a type of X-ray that gives a cross-sectional picture of organs and other structures (including any tumours) in your body.

Positron emission tomography (PET) scan

You will be given a small amount of low dose radioactive glucose, which is 'picked up' by rapidly dividing cells, such as cancer cells. The position of the radioactive glucose can be seen on the scan.

Stages of cervical cancer

Staging describes where your cancer is and helps decide what treatment you may have:

Stage 0 - Abnormal cells are found only in the first layer of cells lining the cervix.

Stage I - The cancer is found only in the tissues of the cervix.

Stage II - The cancer has spread beyond the cervix to the vagina and tissues next to the cervix.

Stage III - The cancer has spread throughout the pelvic area.

Stage IV - The cancer has spread beyond the pelvic area to nearby organs, such as the bladder or rectum. The tumour may also spread to the lung, liver or bones, although this is uncommon.

Treatments for cervical cancer

Treatments for cervical cancer include surgery, radiation treatment, chemotherapy or a combination of these treatments.

Surgery

Surgery is common for small cancers found only within the cervix. The extent of the cancer in the cervix will determine the type of surgery needed.

Cone biopsy - some very early cervical cancers may be treated with cone biopsy.

Trachelectomy - removal of the cervix leaving the uterus behind. This surgery is offered to young women with an early cervical cancer who wish to have children.

Total hysterectomy - removal of the uterus and cervix.

Radical hysterectomy - removal of the uterus and about two centimetres of upper vagina and tissues around the cervix.

When you have either type of hysterectomy, you will also have a:

Pelvic lymphadenectomy - removal of lymph nodes in the pelvis.

Bilateral salpingo oophorectomy - removal of ovaries and fallopian tubes.

Radiation treatment

Radiation treatment uses radiation to destroy cancer cells. The radiation can be targeted to cancer sites in your body. Treatment is carefully planned to do as little harm as possible to your normal body tissue. Radiation treatment is usually given if the cancer has spread into the tissues surrounding the cervix. It can also treat the lymph nodes in the area of the cancer, in case the cancer has already spread there. Radiation treatment may be used after surgery.

Radiation treatment can be given in two ways: from outside (external) or inside (internal) the body. Usually both treatments are used to treat cervical cancer.

External radiation treatment

In external radiation treatment for women with cervical cancer, high energy x-rays are produced from a large machine and are directed at the cancer within the pelvic area. The machine will treat from a few different angles, which takes around two to three minutes each time.

You will probably have radiation treatment as an out-patient and it is delivered once a day, for five days a week, over four to six weeks.

Internal radiation treatment (Brachytherapy)

Brachytherapy is delivered to the cancer from inside the body. It is usually given after a course of external beam radiation treatment with weekly chemotherapy. Brachytherapy involves placing applicators inside the cervix and vagina, as close to the cancer as possible.

The applicators are inserted for a short time while you are under anaesthetic. You may have two treatments during a visit to hospital. Depending on how much radiation treatment you need, you may require more than one admission to hospital. Talk to your doctor about your treatment plan.

Side effects of radiation treatment

Radiation treatment may cause a number of side effects that are usually temporary but may be long

term. These include:

- tiredness
- loss of appetite
- diarrhoea
- pain when passing urine
- a skin reaction. The skin between your buttocks may feel sore, like the feeling you get from sunburn. Ask your doctor or nurse for a cream to relieve this burning feeling.
- your vagina may feel sore, become red and feel dry. Long-term, the skin of the vagina might become tight (vaginal stenosis), which may make sex and vaginal examinations uncomfortable.

If you have not been through menopause, radiation treatment will affect your ovaries and reduce their ability to produce normal hormones. This may cause infertility and symptoms of menopause.

Chemotherapy

The aim is to destroy all cancer cells while doing the least possible damage to normal cells. Chemotherapy drugs are given intravenously and work by stopping cancer cells from growing and reproducing themselves. Chemotherapy is usually combined with radiation treatment to make the treatment more effective. Sometimes chemotherapy may also be used on its own for advanced cervical cancer. You will probably have a number of chemotherapy treatments, every three to four weeks over several months.

Side effects of chemotherapy

The side effects of chemotherapy vary according to the drugs used. They may include:

- feeling sick (nausea)
- vomiting
- having low energy and feeling tired
- some thinning or loss of hair from your body and head.

These side effects are temporary.

Medications to prevent many of the side effects are available and effective.

Your risk of infection is increased when you're having chemotherapy. If fever develops (if your temperature is 38 degrees or over) or you feel unwell, even with a

normal temperature, don't wait to see what happens - take action quickly. Contact your cancer doctor or nurse and follow the advice given.

Combined radiation treatment and chemotherapy

A combination of radiation treatment and chemotherapy is being used increasingly to treat cervical cancer. Combined radiation treatment and chemotherapy causes more side effects than radiation treatment alone.

Coping with side effects

- Tiredness - when having treatment, allow plenty of time to rest. Remember to drink lots of water and have small but frequent meals.
- Premature menopause - if your ovaries are removed, or damaged by radiation treatment, you will no longer have your periods and it will not be possible to become pregnant. If you have not been through menopause, you may experience premature menopause. Symptoms such as hot flushes and vaginal dryness could be more sudden than they would be with a natural menopause. Hormone replacement therapy (HRT) may control the symptoms of menopause. Discuss with your doctor or nurse.
- Bladder problems - bladder control may change after treatment. Your doctor or nurse will be able to suggest ways to help with bladder control. These may include exercises to strengthen the muscles of your pelvic floor. You may need a referral to a physiotherapist. Some hospitals have continence nurses who can help you with bladder problems.
- Bowel problems - after surgery some women may have problems with their bowels for a while. This may be wind pain. Talk to your doctor about medications that may be helpful. Some people say that sucking strong peppermints can help with wind pain. Other people try and eliminate certain foods like onions, garlic, or carbohydrates. Some women become constipated or suffer from diarrhoea and may need to make changes to their diet or take medication. Talk with your doctor if your bowel problems or pain does not improve.
- Lymphoedema - swelling of part of the body, usually the legs or arms. It may occur after treatment for cervical cancer if you have had the lymph nodes in your pelvis removed, or after radiation treatment to the lymph nodes. Damage to the nodes may prevent normal draining of the

fluid from the legs. Fluid can build up in one or both legs, causing swelling. This usually does not occur until some time after the original treatment.

You may be given special stockings to wear after your operation. For further information about lymphoedema, talk to your doctor or nurse or contact the Cancer Information Helpline **0800 CANCER (226 237)**.

Follow-up care

You will need to have regular check-ups with your specialist during and after treatment. These may include blood tests and physical examinations. Talk with your doctor about how often these may be.