Australian and New Zealand Obstetrics and Gynaecology Patient Education

Mi-tec Medical Publishing©

TREATMENT OF DYSPLASIA OF THE CERVIX

Patient information to assist informed consent

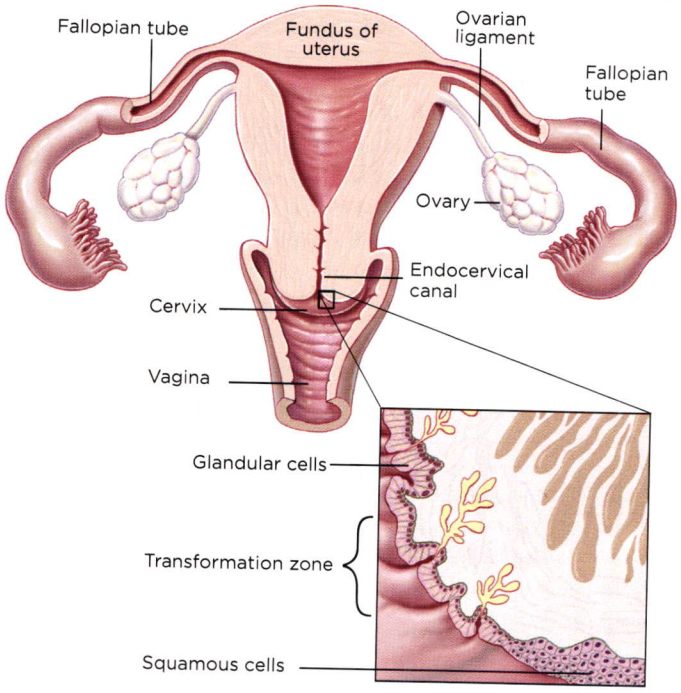
The aim of a cervical screening test (CST) is to check whether high-risk human papilloma virus (HPV) is present in a woman's cervix. Cervical screening tests are important because they can help to prevent cervical cancer caused by high-risk HPV.

The CST has replaced the Pap smear, which was used for many years to detect abnormal changes in cells of the cervix. Rather than checking cells, the CST can detect specific types of high-risk HPV that can lead to cancer. Low-risk HPV usually cause short-term changes to Pap smears or genital warts.

The CST is more accurate than the Pap smear. It can better predict those patients who are more at risk of developing precancerous and cancerous changes of the cervix. This improvement in screening allows earlier and more successful treatment to remove abnormal cells and prevent cervical cancer.

The cervix is the lowest part of the uterus (right). It connects the uterus to the vagina. A layer of cells called squamous cells covers the outside surface of the cervix. A layer called glandular cells lines the endocervical canal. These two types of cells meet at the "transformation zone", which is usually on the outside of the cervix but may be just inside the endocervical canal.

When doing a CST, the doctor gently brushes cells from these areas. When high-risk HPV is detected, cervical cells are prepared for examination in a pathology laboratory. The examination will determine whether the cervical cells are normal or abnormal. This is like the Pap test that women used to have, but in liquid form.



Treatment to remove abnormal cells on the cervix in most cases:

- results in the regrowth of healthy cells, and
- significantly reduces the risk of cervical cancer.

HUMAN PAPILLOMA VIRUS

HPV is a very common virus that can cause harmless skin warts and plantar warts. Most of these minor infections are cleared by the body's immune system.

However, genital infection with HPV can be troublesome. HPV infection may occur during sexual skin-to-skin contact if one of the partners has genital HPV. Of the 200 types of HPV, about 15 types are believed to be "high risk", that is, capable of causing abnormalities of cervical cells that are precancerous or, rarely, cancerous. Most genital HPV infections resolve without treatment. Of 100 women with genital HPV, about 98 will not develop any signs of HPV infection because their immune system has cleared the virus.

Nearly all cases of cervical cancer are caused by chronic infection with high-risk HPV. This is why cervical screening and early detection are so important. Although many women have had an HPV vaccine, they still need to have regular CST because the vaccine does not protect against all types of cancer-causing HPV.

In every 100 cases of cervical cancer, about 95 are related to HPV infection.

Main risk factors for cervical cancer

- HPV
- smoking
- not having a regular CST
- a weak immune system.

Abnormal cervical cells

Changes in cells may be seen when they are examined. The important changes are called dysplasia (an abnormal change in the size and shape of cells). Dysplasia is not cancer, but severe dysplasia might develop into cancer over a long and unpredictable period if left untreated. Most cervical cancers take years to develop. Dysplasia of cervical cells is classified as mild, moderate or severe.

The term to describe abnormal cervical cells is "cervical intraepithelial neopla-

IMPORTANT: FILL IN ALL DETAILS ON THE STICKER BELOW

DEAR DOCTOR: When you discuss this pamphlet with your patient, remove this sticker, and put it on the patient's medical history or card. This will remind you and the patient that this pamphlet has been provided. Some doctors ask their patients to sign the sticker to confirm receipt of the pamphlet.

Continued on page 2

Edition number: 8

Continued from page 1

sia" or CIN. Intraepithelial means "within the tissue", and neoplasia means "new growth of (abnormal) cells". CIN-1 is mild dysplasia. CIN-2 is moderate dysplasia. CIN-3 is severe dysplasia.

CIN-1 is due to infection with HPV. Of every 10 cases of HPV infection, eight will go away without treatment within 12 months. In addition to CIN changes, other minor abnormalities are commonly seen. These often need follow-up but do not always mean that precancerous changes are developing.

CELL ABNORMALITIES

Two types of cells in the cervix may develop abnormal changes: 1. squamous cells are the most commonly affected, and 2. glandular cell abnormalities are much less common.

1. SQUAMOUS CELL ABNORMALITIES

Most abnormalities are due to infection with HPV. In early stages of infection, HPV does not cause signs or symptoms. HPV infection is usually cleared by the body's immune system. Abnormalities are classified in the following ways:

- Possible LSIL (Low-grade Squamous Intraepithelial Lesion): Sometimes, cells show possible low-grade changes, and the cause is uncertain. These atypical cells may be due to HPV, tissue inflammation, or infection with bacteria, viruses, fungi or yeasts. Usually, the condition gets better with time. If changes persist, then the doctor may recommend a colposcopy.
- LSIL: This report suggests that definite changes are present, usually due to infection with HPV. These changes may be called HPV alone, or other cells may be present which are called CIN-1.

If this is the first time you have had abnormal cells on your cervix, your doctor will recommend that you have a repeat CST in 12 months. If the changes are still present in 12 months, your doctor will recommend that you have a colposcopy.

- Possible HSIL (High-grade Squamous Intraepithelial Lesion): This report means that the pathologist is uncertain of the exact abnormality but is suspicious that an HSIL (high grade abnormality) such as CIN-2 or CIN-3 may be present. Your doctor will refer you for a colposcopy.
- HSIL: This report means that it is likely that a high grade abnormality is present. Your doctor will refer you for colposcopy.
- Cancer: This report means that cell changes may be due to the presence of a cancer of the cervix. Your doctor will refer you for colposcopy, which is often performed by a gynaecological oncologist (a specialist in cancer of the cervix).

2. GLANDULAR CELL ABNORMALITIES

These are uncommon changes in the cells of the cervix. Most women who have these cell changes are referred for colposcopy.

Based on the results of the colposcopy, your doctor may advise you to have more frequent tests or treatment to remove the abnormal cells.

CATEGORIES OF RISK

A woman may be in one of three categories of risk:

1. Low risk: she will be invited to have a CST in five years
2. Intermediate risk: she will be invited to have a test for HPV in 12 months
3. Higher risk: she will be referred to have a colposcopy.

Cervical intraepithelial neoplasia-1 (CIN-1/HPV)

Minor changes in the size, shape and number of cervical cells are called CIN-1 or mild dysplasia.

Nearly all low-grade abnormalities (CIN-1) go away without treatment, as they are due to HPV infection. Treatment is not recommended for CIN-1 as risks outweigh the benefits. In a few women, CIN-1 persists or, rarely, progresses to a high-grade change. Following the diagnosis of CIN-1/HPV, the woman is usually advised to have a CST with her GP every year until the result is normal. In a few women, CIN-1 may persist due to ongoing HPV infection. In this case, the woman should continue to have a yearly CST until the result is normal. If a high-grade abnormality develops, she should have a colposcopy.

High-grade Abnormalities CIN-2 and CIN-3

Precancerous cells may be present that are very different from normal cells. These are described as moderate dysplasia (CIN-2) or severe dysplasia (CIN-3).

Precancerous changes involve only cells in the surface layer of the cervix. If left untreated, these cells are more likely to become cancerous and invade deeper layers. If high-grade abnormalities are detected, the woman is advised to have a colposcopy and biopsy. If CIN-2 or CIN-3 is confirmed, then treatment is recommended to remove the abnormal cells.

Though not all CIN-2 and CIN-3 will progress to cancer, it is not possible to predict which abnormalities will clear up. Therefore, all CIN-2 and CIN-3 should be treated, except in certain circumstances. If treatment is deferred, careful follow-up is important.

It is dangerous to leave CIN-2 and CIN-3 untreated. If the abnormal cells spread deeper into the cervix or to other tissues or organs, this is called cervical cancer and will require more aggressive treatment.

High-grade lesions (CIN-3) usually take many years to develop into a cancer.

If cancer were to develop, the abnormal cells would spread to tissue beneath the surface layer. Treatment for cancer typically involves extensive surgery, which is different from treatments for the dysplasia described in this pamphlet.

Colposcopy

Colposcopy is a visual examination of the cervix to check for precancerous changes. The procedure is usually undertaken in a doctor's rooms. The woman is asked to undress from the waist down and to lie on a special couch that supports her legs.

A speculum is inserted to keep the vagina open, so the cervix can be seen clearly. The doctor uses a colposcope (a magnifying instrument similar to a pair of binoculars with a light attached) to examine the cervix. The colposcope is not put inside the vagina, only the speculum.

The cervix is painted with weak acetic acid (vinegar), which causes abnormal cells to turn white; both iodine and acetic acid may be used. The resulting pattern can help your doctor to decide if this is a high-grade or low-grade lesion. Tell your doctor if you have ever had an allergic reaction to iodine.

Biopsy: Your doctor may remove a small sample of tissue (biopsy) from an abnormal looking area. A solution may be applied to the area to stop any bleeding. If a biopsy is taken, you may have some pain or discomfort, which can be treated with a pain reliever.

After a biopsy, you may have minor bleeding and a slight vaginal discharge for up to a week. Avoid sex, tampons or baths (shower instead) for a week to allow the cervix to heal.

The biopsy is sent to a pathology lab for diagnosis. Results are usually reported to your doctor in about a week.

TREATMENTS FOR CERVICAL DYSPLASIA

If the results of colposcopy and biopsy indicate a high-grade abnormality (CIN-2 or CIN-3), your doctor will recommend treatment to remove the abnormal cells. Treatment may also be recommended for persistent low-grade abnormalities. Several treatments can be effective, as described below. The best treatment for you will depend on the type and severity of the abnormal cells.

Some doctors prefer one treatment method to another.

Wire Loop Excision

Wire loop excision is also known as LEEP (loop electrosurgical excision procedure) or LLETZ (large loop excision of transformation zone). A semi-circular wire loop is used to remove the portion of the cervix that contains the precancerous changes.

Many doctors prefer wire loop excision to other methods because the removed tissue is not destroyed, and it can be sent to a pathology laboratory for examination.

Wire loop excision is often preferred when abnormal cells are present in the endocervical canal. Using wire loop excision, it is possible to:

- confirm whether abnormal cells have been completely removed, and
- determine the type of abnormality present.

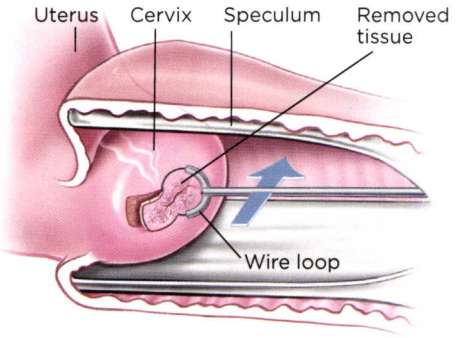
During the procedure, a speculum is inserted to open the vagina and allow the cervix to be seen clearly. Weak acetic acid (vinegar) and/or iodine solution is applied to the surface of the cervix to make the areas of abnormal cells more visible. Local anaesthetic is injected to numb the cervix. Layers of abnormal cells are cut away from the cervix with a fine wire loop. Diathermy is used to stop any significant bleeding.

The procedure takes about 15 to 30 minutes and is usually performed in a day procedure centre, clinic, outpatient department, or doctor's rooms. A bloody, brown or black discharge occurs soon after the procedure. A bloody discharge may occur for two to four weeks afterwards, and occasionally longer. Cramps and pain may persist in the lower abdomen for a few days. Most women are able to return to normal activities within two to three days.

Wire loop excision is sometimes done at the same time as the first colposcopy. An advantage is that any abnormal cells can be removed at the time of diagnosis, rather than having to wait for the results of a biopsy before treatment is undertaken.

WIRE LOOP EXCISION

Layers of abnormal cells are cut away from the cervix using a fine wire loop with electric current running through it.



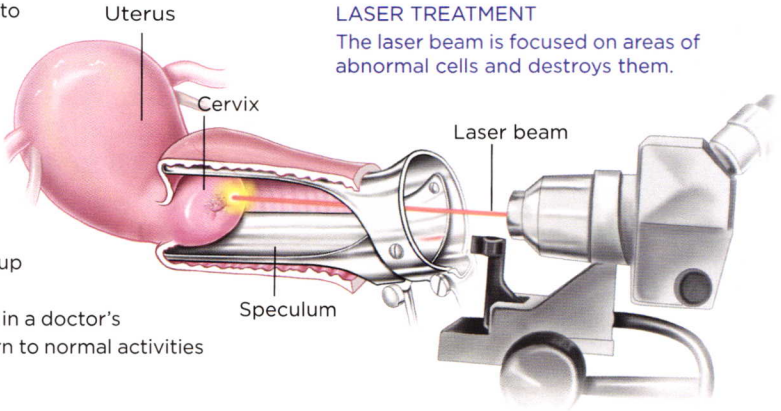
Laser Treatment

A laser (an intense, highly focused beam of laser light) can be used to cut or vaporise the abnormal tissue. A speculum is inserted to open the vagina and allow the cervix to be seen clearly. A local anaesthetic is injected into the cervix, followed by the application of weak acetic acid or iodine, which helps to reveal areas of abnormal cells. The doctor directs the laser through a colposcope onto the abnormal tissue, allowing the area and depth of burn to be precisely controlled. The laser stops most bleeding as it cuts, so bleeding is usually minor. Healing usually occurs quickly, with some vaginal discharge. In some cases, vaginal discharge can last up to four weeks.

Laser treatment takes about 20 to 30 minutes and is undertaken in a doctor's rooms or as a day procedure in a hospital or clinic. Most women return to normal activities within a few days of treatment.

LASER TREATMENT

The laser beam is focused on areas of abnormal cells and destroys them.



Cone Biopsy

A cone biopsy is usually done when:

- Pap smear results indicate abnormal changes in glandular cells
- abnormal cells are in the endocervical canal, or
- early cancer is suspected.

Cone biopsy is an operation in which a cone-shaped or cylindrical section of the cervix containing the abnormal cells is removed using a laser or scalpel (cold cone biopsy). A day or overnight hospital stay may be required.

A cone biopsy may be done as diagnosis and treatment. A cone biopsy taken for diagnosis usually treats the problem at the same time. During general anaesthesia, the patient's legs are placed in supports, with the lower half of the body draped with sterile sheets. (In some cases, a urinary catheter may be passed to empty the bladder.)

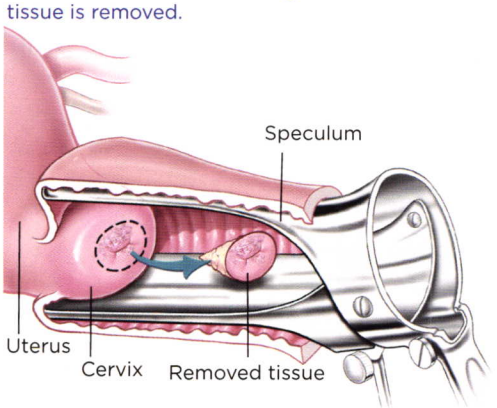
After painting the cervix with iodine to stain any abnormal cells, the doctor makes a circular incision in the cervix to include the abnormal areas and removes a cone-shaped or cylindrical wedge of tissue. This tissue is sent to a pathology laboratory where it is examined.

The operated area is cauterised, or a solution applied, to stop bleeding. Sutures may be inserted to close the wound. An endoscopic examination of the uterus (hysteroscopy) may be undertaken at this time.

After cone biopsy, avoid heavy physical work and take things easy for several days. You may have some abdominal pain after treatment. It is normal to have some clear or blood-stained vaginal discharge for up to six weeks. If you later become pregnant, you must tell your doctor you have had a cone biopsy. Uncommonly, the cervix may be weakened by the cone biopsy, and your doctor may wish to take special precautions during your pregnancy.

CONE BIOPSY

A circular incision is made in the cervix and a "cone" of tissue containing the abnormal tissue is removed.



Hysterectomy

Hysterectomy is rarely used to treat cervical dysplasia. In some cases, however, it may be considered if other problems exist, including:

- other gynaecological conditions (such as prolapse of the uterus, fibroids or heavy menstrual bleeding)
- results from cone biopsy indicate that CIN-2 or CIN-3 is too extensive to be removed by the other techniques described above
- early cancer is diagnosed in the course of treating cervical dysplasia.

RECOVERY AND CARE AFTER TREATMENT

For three to four weeks after treatment to remove abnormal cervical tissue:

- avoid having sex to reduce the risk of infection
- use sanitary napkins rather than tampons
- if there is any bleeding or spotting, avoid baths, spas and public swimming pools; shower instead.

Follow-up

Any remaining disease is usually detected in the first year or two after treatment. Sometimes your treatment will confirm that you did not actually have a high grade abnormality (CIN-2 or CIN-3) and that you had a low-grade abnormality (CIN-1 or HPV only). You may be advised to have a check-up colposcopy with your gynaecologist four to six months after treatment. Your gynaecologist can discuss the outcome with you and when to have another CST.

After treatment for a high-grade abnormality (CIN-2 or CIN-3), you should have a colposcopy and a CST about four to six months after treatment. Tests may be repeated according to your doctor's advice. When you have normal results for two consecutive years, you can return to routine CST.

If a CST is positive for HPV or if low-grade cell changes are present, then testing should continue until results are normal, according to your doctor's advice. If any follow-up test shows a high-grade change or you develop abnormal bleeding, see your doctor.

POSSIBLE COMPLICATIONS OF TREATMENT FOR CERVICAL DYSPLASIA

Laser treatment, wire loop excision and cone biopsy are relatively safe procedures but do have risks. Despite the highest standards of medical practice, complications can occur. Doctors do not usually dwell at length on every possible side effect or rare complication of a diagnostic or treatment procedure. However, it is important that you have enough information about possible complications to weigh up the benefits, risks and limitations of surgery.

The following possible complications are listed to inform you and not to alarm you. There may be other complications that are not listed.

Wire loop excision, laser treatment and cone biopsy

- Haemorrhage: of every 100 women who are treated, about five women may have bleeding that is severe enough to require admission to hospital for observation, vaginal packing, suturing, or rarely, blood transfusion.
- Infection: About five in every 100 treated women may develop an infection of the uterus or cervix. This is usually treated with antibiotics.
- Cervical stenosis (narrowing): Rarely, the opening of the endocervical canal may narrow, resulting in painful periods, difficulty with labour, or infertility.
- Cervical incompetence: After a cone biopsy or wire loop excision, the cervix may be weakened, increasing the risk of late miscarriage or premature labour.
- Rarely, damage to the bowel or bladder may occur.
- LEEP or LLETZ: Burns can occur at the top of the vagina and vulva. They are usually not painful and usually heal well without complication.

Effect of treatment on pregnancy

Treatment to remove abnormal cells of the cervix does not affect the ability of most women to become pregnant. However, some women may be affected.

If you are pregnant when you have an abnormal CST result, your doctor may recommend a repeat CST and a colposcopy. These procedures do not affect the pregnancy. Treatment, if required, can almost always be delayed until after the baby is born. It is not usually necessary to take biopsies from the cervix during pregnancy.

Cone biopsy may cause a problem for future pregnancies. Uncommonly, the cervix can become weakened, increasing the risk of miscarriage or early onset of labour. If you later become pregnant, your obstetrician may have to place a stitch in the cervix to strengthen it, ensuring that the endocervical canal remains closed for the duration of the pregnancy.

Cone biopsy may scar the cervix so that it does not open in labour. If you have had a cone biopsy, tell your doctor so that the cervix is carefully monitored during pregnancy and labour.

Distress

For some women, the tests, treatments and discussions about precancerous cells can be especially distressing. The presence of HPV infection can also be a concern. You may find it helpful to speak with your doctor, partner or friends about how you are feeling.

Report to Your Doctor

If you have any of the following symptoms after treatment for cervical dysplasia, tell your doctor at once:

- bleeding that is heavier than a normal menstrual period
- a fever greater than 38°C, or chills
- pain in the lower abdomen
- an unpleasant-smelling discharge (indicating an infection)
- any concerns you have about your treatment or test results.

COSTS OF TREATMENT

Your doctor can advise you about coverage by public health insurance, private health insurance and out-of-pocket costs. Ask about a written estimate of the likely costs. This includes medical and hospital fees, and other items. Ask which costs can be claimed on public or private health insurance. As the actual treatment may differ from the proposed treatment, the final account may vary from the estimate. It is best to discuss costs with your doctor before treatment, rather than afterwards.

Edition number: 8 16January2019 Mi-tec Medical Publishing © Telephone: +61 3 9888 6262 Facsimile: +61 3 9888 6465 e-mail: orders@mitec.com.au online orders: www.mitec.com.au

Talk to Your Doctor

The aim of this pamphlet is to provide you with general information. It is not a substitute for discussion with your doctor and does not contain all known facts about cervical dysplasia. If you are not sure about the benefits, risks and limitations of treatment, ask your doctor. Read this pamphlet carefully, and save it for reference. Terms are used that may require further explanation. Write down questions you want to ask. Your doctor will be pleased to answer them. Seek a further opinion from another medical practitioner if you are uncertain about the information you are given. **Pathology tests:** The pathology lab usually reports results to your doctor in one to two weeks. It is helpful to contact your doctor to find out your result. If you think you should have received the results of a CST or biopsy from your doctor but have not yet been contacted, then call your doctor. **Consent form:** If you decide to have treatment, you will be asked to sign a consent form. Before signing, read it carefully.

Your Doctor

This patient education has been reviewed by obstetricians and gynaecologists in Australia and New Zealand