PROCEDURE

# Cervix cryosurgery

Cervix cryosurgery freezes and destroys abnormal cells on the cervix.

**PURPOSE**
Destroy abnormal cells on the cervix

**PROCEDURE TYPE**
Therapeutic, minimally invasive freezing treatment

**WHERE IT IS DONE**
Outpatient clinic

**ANAESTHESIA**
Usually none; local anaesthetic sometimes used

**HOW LONG IT TAKES**
About 10 to 15 minutes

**PREPARATION**
Usually no fasting; follow medicine and vaginal-care instructions

**RECOVERY**
Same day; driving usually allowed without sedation

**MAIN RISKS**
Bleeding, infection, cervical narrowing, incomplete treatment

**RESULTS**
No pathology; follow-up testing usually starts around six months

## Overview

Cervix cryosurgery, also called cervical cryotherapy, uses extreme cold to destroy abnormal cells on the cervix. The cervix is the lower part of the uterus that opens into the vagina.

A clinician places a smooth metal probe against the cervix. Compressed gas cools the probe, freezing the targeted tissue. The damaged cells later shed, and healthy tissue grows over the treated area.

Cryosurgery does not cut out tissue. This means there is no tissue sample from the procedure for a laboratory to examine. A colposcopy and biopsy are usually needed beforehand to confirm what type of abnormal cells are present.

You normally go home shortly after treatment.

## Why the procedure is performed

Cryosurgery is mainly used to treat selected precancerous changes limited to the surface of the cervix. These changes are called cervical intraepithelial neoplasia, or CIN. Treating them can reduce the chance that they will develop into cervical cancer.

Cryosurgery may be considered when the entire abnormal area can be seen and reached with the probe. It may also be used for certain non-cancerous surface problems, such as troublesome cervical ectropion, although treatment is not always needed for these conditions.

It is not a treatment for invasive cervical cancer.

## Who should and should not have it

Cryosurgery may be an option if testing has confirmed abnormal surface cells and the treatment area is fully visible. Your healthcare team should explain why freezing is suitable compared with removing the tissue.

The procedure is generally avoided when:

Treatment is usually delayed during pregnancy. It may also be postponed if you have an untreated cervical or pelvic infection, unexplained bleeding, or bleeding heavy enough to prevent a clear view of the cervix.

Previous treatment for high-grade cervical changes can affect whether cryosurgery is appropriate. In some situations, an excisional procedure that removes tissue is preferred.

- Cancer is suspected or has not been ruled out
- Abnormal cells extend into the cervical canal beyond view
- The entire abnormal area cannot be seen or covered by the probe
- Glandular cell changes, including adenocarcinoma in situ, are present
- Earlier test results do not clearly agree
- A laboratory tissue sample is needed to guide further care

## How to prepare

Follow the treating facility's own instructions first, even if they differ from general information here.

Fasting is not usually required because sedation and general anaesthesia are not normally

used. Ask whether you should take your usual medicines, particularly blood thinners or medicines that affect clotting. Do not stop a prescribed medicine unless the healthcare professional managing it tells you to.

Your facility may ask you to avoid sex, tampons, vaginal medicines, or douching for a short period before treatment. Tell the team if you may be pregnant, have unusual discharge or fever, or have started bleeding heavily.

You may want to bring a menstrual pad for the watery discharge that often begins after treatment.

## What happens during the procedure

You undress from the waist down and lie on an examination table with your feet supported, much as you would for a cervical screening test.

A clinician gently places a speculum into your vagina. This instrument holds the vaginal walls apart so the cervix can be seen. The cervix may be cleaned before the cryoprobe is positioned against the abnormal area.

Gas flowing through the probe makes its tip extremely cold. The tissue is commonly frozen, allowed to thaw, and then frozen again. You may hear the gas moving through the equipment.

You may feel pressure, menstrual-like cramping, warmth, or light-headedness. Tell the team if you feel unwell. Local anaesthetic is sometimes used, but many people do not need it.

The probe is removed after the tissue has thawed enough to release safely. There are no stitches.

## Recovery and what to expect afterward

Pain: Mild or moderate cramping may continue for several hours. An over-the-counter pain reliever may help if it is safe for you. Follow the instructions you receive.

Eating: You can usually eat and drink normally straight away.

Activity: Most normal activities can resume the same day. Watery discharge is expected as the frozen tissue sheds and the cervix heals. It may be heavy and can be clear, yellowish, or lightly blood-stained for several weeks.

Your team will tell you how long to avoid tampons, penetrative vaginal sex, douching, swimming, and baths. These restrictions help lower the risk of bleeding or infection while the cervix heals. Use pads rather than tampons during this period.

Driving: You can usually drive after cryosurgery if you did not receive a sedating medicine and do not feel faint or unwell. Arrange a ride if sedation is planned or your facility requires an escort.

Work: Many people return to work the same day or the next day. You may prefer a short rest if you have cramping, discharge, or a physically demanding job.

## Risks and possible complications

Cryosurgery is generally well tolerated, but it does not work in every case. Important possible problems include:

Cervical narrowing could make menstrual flow, future cervical testing, or fertility procedures more difficult. Ask how cryosurgery and its alternatives may affect a future pregnancy if this is important to you.

A vasovagal reaction can occur during treatment. This is a temporary drop in heart rate or blood pressure that may cause sweating, nausea, or faintness.

- Bleeding heavier than expected
- Infection of the cervix or pelvis
- Persistent pain or discharge
- Cervical stenosis, meaning narrowing of the cervical opening
- Abnormal cells remaining or returning after treatment
- Injury to nearby vaginal tissue if it is exposed to the probe

## Results and follow up

Cryosurgery destroys tissue rather than removing it, so there is usually no new pathology report afterward. The results used to choose treatment come from your earlier cervical screening, colposcopy, and biopsy.

Follow-up testing is essential because freezing may not destroy every abnormal cell. HPV testing, a Pap test, or both commonly begin around six months after treatment for high-grade changes. Your exact schedule is based on the original diagnosis, previous results, age, and local guidance.

Keep attending follow-up even if you feel well. Cervical cell changes usually do not cause symptoms, so testing is the way to confirm that treatment worked and detect changes that

return.

## Alternatives

Monitoring may be appropriate for some low-grade changes, especially when they are likely to clear without treatment. It avoids a procedure but requires reliable repeat testing and allows the abnormal area to remain during observation.

LEEP or LLETZ uses a thin heated wire loop to remove abnormal tissue. It provides a specimen for laboratory examination and can treat changes extending slightly into the cervical canal. It removes more cervical tissue than cryosurgery and may carry greater concern for future pregnancy, particularly after deeper or repeated treatment.

Cone biopsy removes a cone-shaped section of the cervix. It gives a larger specimen and may be preferred when cancer or glandular disease must be excluded. It is a more involved procedure with greater risks of bleeding and pregnancy-related cervical problems.

Thermal ablation destroys surface cells with heat rather than cold. Like cryosurgery, it is quick and does not provide a tissue sample.

Laser treatment can destroy or remove abnormal tissue with a focused beam. It can be precise but requires specialised equipment and expertise.

If invasive cancer is found, treatment follows a different pathway and may involve surgery, radiotherapy, chemotherapy, or a combination.

## When to call your healthcare team

Contact your healthcare team promptly if you have:

Routine watery discharge, mild cramping, and light spotting can be expected. Ask during routine follow-up if these are gradually improving but you remain concerned.

Seek emergency help for very heavy bleeding with fainting, severe weakness, breathing difficulty, confusion, or severe and rapidly worsening pain.

- Fever, chills, or feel increasingly unwell
- Foul-smelling discharge
- Worsening lower abdominal or pelvic pain
- Bleeding that soaks through a pad in about an hour

- Discharge or bleeding that continues beyond the expected healing period
- Symptoms that improve and then become worse

## Common questions

Will I be asleep?

Usually not. Cervix cryosurgery is normally performed while you are awake without sedation. You may receive local anaesthetic, although many people do not need it.

Can I drive home?

Usually, yes. Do not drive if you received a sedative, feel faint, or were told to arrange an escort.

How painful is it?

Many people feel pressure and menstrual-like cramps during freezing. Cramping usually settles within several hours. Tell the clinician if the pain becomes difficult to tolerate.

When will I know whether it worked?

There is no immediate laboratory result because the tissue is destroyed. Follow-up HPV or cervical cell testing, often beginning around six months later, shows whether abnormal cells remain.

How long will the discharge last?

Watery discharge can continue for several weeks while the cervix heals. It should gradually improve. Foul-smelling discharge, fever, worsening pain, or heavy bleeding needs prompt medical advice.

Can abnormal cells come back?

Yes. Cryosurgery may not remove every abnormal cell, and new changes can develop later. Regular follow-up testing remains important even after successful treatment.

## Sources

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