## Cervical insufficiency and cerclage procedure

### Understanding cervical insufficiency

The cervix is the lower, narrow portion of the uterus that opens into the vagina. In most pregnancies, it remains long and closed until late in the third trimester, when normal cervical ripening begins in preparation for labor. In cervical insufficiency, the cervix may shorten or dilate prematurely, sometimes without contractions, pain, or the typical warning signs of labor.

Classically, cervical insufficiency is suspected after painless cervical dilation in the second trimester, especially if membranes bulge through the cervical opening and pregnancy loss or very early delivery occurs. However, many people do not present in such a clear pattern. Some are identified because a previous pregnancy history raises concern; others are found to have a short cervix on routine or targeted transvaginal ultrasound.

It is important to distinguish cervical insufficiency from other causes of pregnancy loss or preterm birth, including infection, placental complications, fetal conditions, uterine contractions, or premature rupture of membranes. This distinction matters because treatment choices differ. A person with bleeding from placenta previa, for example, needs a different evaluation and safety plan than someone whose main finding is painless cervical shortening.

## Risk factors and clinical clues

Many cases of cervical insufficiency have no single identifiable cause. Still, certain histories can increase suspicion. Prior cervical surgery, such as a cone biopsy or some excisional procedures for cervical dysplasia, may reduce cervical tissue strength. Cervical trauma from previous obstetric procedures or difficult dilation can also be relevant. Some people have congenital uterine or cervical differences, and connective tissue disorders may affect cervical integrity.

Clinicians often look for patterns rather than one isolated detail. Features that may raise concern include:

One or more second-trimester losses associated with painless cervical dilation.
Previous very early spontaneous preterm birth, particularly if preceded by cervical shortening or dilation.
A short cervical length on transvaginal ultrasound before 24 weeks, especially in someone with a prior spontaneous preterm birth.
Visible cervical dilation on examination in the second trimester without regular painful contractions.
Bulging or prolapsed fetal membranes through the cervical canal.

Symptoms can be subtle or absent. Some people report pelvic pressure, increased vaginal discharge, backache, mild cramping, or spotting, but these findings are nonspecific. Any new bleeding, fluid leakage, persistent pain, or pressure should be discussed promptly with a pregnancy care team.

## How cervical insufficiency is evaluated

Evaluation usually begins with a detailed obstetric and gynecologic history. Clinicians ask about previous pregnancy losses, timing of losses or preterm births, whether labor contractions were present, whether membranes ruptured, and whether infection or fetal conditions were identified. They may also review prior cervical procedures, uterine surgery, or known connective tissue disorders.

Transvaginal ultrasound is a key tool because it provides the most accurate

cervical length measurement. The cervix is usually measured in millimeters, and serial measurements may be used for people at higher risk. A shorter cervix earlier in pregnancy can be associated with increased risk of spontaneous preterm birth, although the meaning depends on gestational age and clinical history.

A pelvic or speculum examination may be needed if there are symptoms such as pressure, bleeding, discharge, or fluid leakage, or if ultrasound suggests dilation. The clinician may assess whether the cervix is open, whether membranes are visible, and whether there are signs of infection or ruptured membranes. This step is particularly important before considering an exam-indicated, sometimes called rescue, cerclage.

Because cervical insufficiency overlaps with other pregnancy complications, diagnosis is not something to self-determine. The same symptom, such as second-trimester bleeding, can have several causes, and decisions about monitoring, progesterone, cerclage, or hospital evaluation depend on professional assessment.

**What is a cerclage procedure?**

Cervical cerclage is a procedure in which a strong suture is placed around the cervix to help keep it closed. Most cerclages are performed through the vagina using techniques such as the McDonald or Shirodkar approach. Less commonly, a transabdominal cerclage is considered for selected people, often those with prior failed vaginal cerclage or anatomy that makes vaginal placement difficult.

The procedure is typically done in an operating room or procedure setting with regional or general anesthesia, depending on circumstances and local practice. The clinician places the stitch around the cervix and tightens it to reinforce cervical closure. Afterward, the person is monitored for contractions, bleeding, fluid leakage, pain, or signs of infection.

In many pregnancies, a transvaginal cerclage is removed around 36 to 37 weeks, before labor begins. It may be removed earlier if labor starts, membranes rupture, significant bleeding occurs, infection is suspected, or another obstetric reason develops. Timing and removal plans should be clarified with the obstetric team, because they depend on the type of cerclage and the

pregnancy course.

Cerclage is a supportive intervention, not a guarantee. Its purpose is to reduce the risk of cervical opening too early in people most likely to benefit. The decision to place one balances potential benefit against procedure-related risks.

**Types of cerclage: history, ultrasound, and examination indications**

Clinicians often describe cerclage by the reason it is placed. These categories help guide timing and risk-benefit discussions.

History-indicated cerclage: This is usually planned early in the second trimester, often around 12 to 14 weeks, for people with a strong prior history suggesting cervical insufficiency. The decision depends on details of past pregnancies, including gestational age and whether painless dilation occurred.
Ultrasound-indicated cerclage: This may be considered when transvaginal ultrasound shows a short cervix in a person with a previous spontaneous preterm birth or second-trimester loss. It is generally discussed before fetal viability and often before 24 weeks, depending on guidelines and individual circumstances.
Exam-indicated cerclage: Also called emergency or rescue cerclage, this may be considered when the cervix is already dilated on physical examination in the second trimester, often without contractions. It requires careful evaluation because infection, ruptured membranes, active labor, or significant bleeding may make the procedure unsafe or inappropriate.

Not every short cervix requires cerclage. In some situations, especially for people without a prior preterm birth, vaginal progesterone may be recommended instead of or before surgical intervention. Management may also include cervical length surveillance, activity guidance tailored to the individual, and planning for prompt evaluation if symptoms arise.

**When cerclage may not be appropriate**

Cerclage is not used simply because someone is anxious or because pregnancy feels high risk. There are situations in which placing a stitch could increase harm or fail to address the true problem. Common contraindications or reasons

to avoid cerclage include active labor, significant uterine contractions, intra-amniotic infection, ruptured membranes, major vaginal bleeding, fetal demise, or severe fetal anomaly incompatible with life. Specific decisions vary by case and require obstetric judgment.

Before an exam-indicated cerclage, clinicians may evaluate for infection, membrane status, fetal well-being, and uterine activity. If membranes are bulging, the technical difficulty and risk of rupture may be higher. The care team may discuss uncertain benefit, the possibility of hospitalization or observation, and what outcomes are realistic at the current gestational age.

It is also important to avoid unproven self-management strategies. Bed rest has not consistently shown benefit and can have harms such as muscle loss, emotional distress, and blood clot risk. Any activity modification, pelvic rest, or work restriction should be individualized rather than assumed.

**Possible risks and recovery after cerclage**

Most cerclage procedures are completed without major complications, but risks should be discussed clearly. Potential complications include cramping, light bleeding, infection, cervical laceration, premature rupture of membranes, contractions, and anesthesia-related risks. Rarely, the procedure may precipitate pregnancy loss or preterm labor, particularly when the cervix is already dilated or membranes are exposed.

After cerclage, patients may have a short period of observation. Mild cramping or spotting can occur, but worsening pain, fever, foul-smelling discharge, heavy bleeding, leakage of fluid, or regular contractions require urgent contact with the care team. Follow-up plans vary: some clinicians monitor cervical length after cerclage, while others focus on symptoms and routine prenatal care.

Emotional recovery matters too. People undergoing cerclage often carry the memory of prior loss or the fear of preterm birth. It is reasonable to ask for a clear plan: who to call after hours, what symptoms require triage, whether progesterone is recommended, how often visits will occur, and when the stitch will be removed.

## Living with uncertainty during a high-risk pregnancy

A diagnosis or concern for cervical insufficiency can change the emotional tone of pregnancy. Many people describe feeling hyper-alert to every sensation, discharge change, or twinge. This vigilance is understandable, particularly after previous second-trimester loss, but it can be exhausting.

Practical supports may help. Ask your clinician to write down the plan for monitoring, medication, warning signs, and delivery timing. If you have a cerclage, clarify whether intercourse, exercise, lifting, travel, or work need modification in your specific situation. Consider involving a partner, trusted family member, or support person in appointments so they can help remember details and respond if urgent symptoms occur.

Finally, know that needing surveillance or a procedure is not a personal failure. Cervical tissue behavior is not caused by ordinary daily activities, and decisions about cerclage are medical risk-management choices. Compassionate, specialized care can help you navigate the uncertainty one step at a time.