Intermountain® Healthcare

Chorionic Villus Sampling (CVS)

What is it?

CVS is a prenatal test usually performed between 10 and 13 weeks of pregnancy. It involves testing a sample of the **placenta**, the tissue that joins you and your developing baby. CVS is called an invasive test because it requires going into your **uterus** (womb) to get the test sample from the placenta.

CVS is a highly accurate way to determine if your pregnancy is affected by a genetic disorder such as Down syndrome, trisomy 18, or cystic fibrosis.

Why do I need it?

As with all prenatal tests, CVS is optional, not required. Women who choose CVS (or a similar test called amniocentesis) are often those who:

- Are older at the time of the pregnancy, as the risk of genetic disorders increases with the mother's age
- Have a family history of a disorder that can be detected by CVS
- Have had prenatal screening results suggesting an increased risk of a genetic disorder
- Seek reassurance about their pregnancies

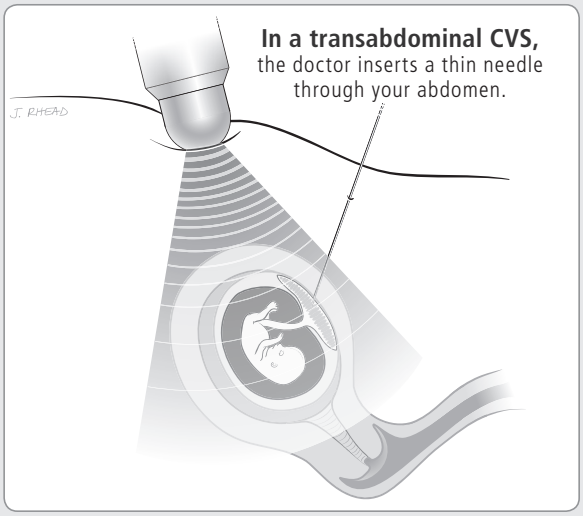
Talking to your doctor or a genetic counselor can help you decide whether CVS is right for you.

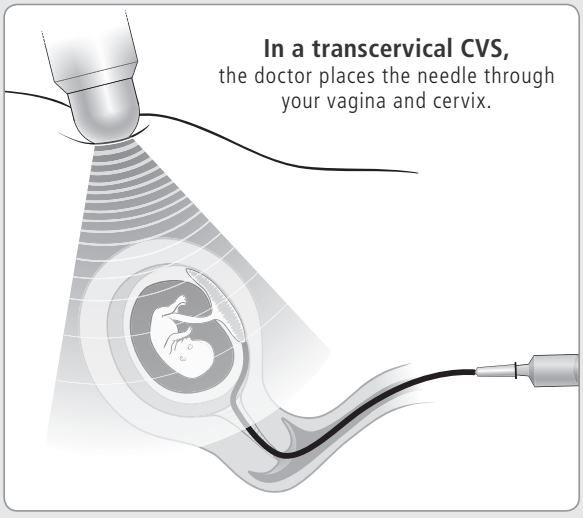
How is it done?

During CVS, a doctor uses a thin needle to remove cells from the part of the placenta called the **chorionic villi.** There are two methods for reaching the placenta: through your abdomen (transabdominally) and through your cervix (transcervically). These methods are shown at right.

In both methods, the doctor uses ultrasound to carefully guide the needle to the right place on the placenta. Once the needle is in place, the doctor removes a small piece of the placenta for testing. The needle is then taken out, and the sample is sent to a laboratory for testing.

CVS takes 10 minutes or less, and is done as an outpatient procedure. You should arrive for your CVS with a full bladder. Other than this, CVS requires no special preparation.





What happens before?

Before you have the CVS procedure, you'll discuss the test with your doctor. You may also meet with a **genetic counselor** — a medical professional who can also help you evaluate your risk and your options for prenatal testing. Topics for discussion include:

- **Your risk for a child with a genetic disorder.** Your provider and genetic counselor can help evaluate your risk based on factors such as your family history, age, ethnic group, and so on.
- **CVS's potential benefits, risks, and alternatives.** In addition to the general information in the table below, your doctor will discuss any potential benefits, risks, or alternatives that may apply to your situation.
- **What the test results can tell you about this pregnancy.** With more than 99% accuracy, CVS can tell you whether your pregnancy is affected by a genetic disorder. You and your provider can discuss which genetic disorders your CVS should test for. Some disorders, such as Down syndrome, are routinely tested for, but tests for some other problems must be specifically ordered. Note that test results may prompt your doctor to suggest additional testing. Also realize that a normal result does not guarantee a normal baby.

Prior to your CVS, your blood type will be reviewed. If you are Rh negative (a particular blood type), you may need an injection after this or any other procedure during pregnancy.

On the day of your procedure, you should arrive at the hospital or clinic with a full bladder. Other than this, there is no special preparation needed for CVS.

What happens after?

- After CVS, you can return to normal activities. Results are usually available in 7 days.
- Some women have mild cramping or spotting (small amount of bleeding from the vagina) for the first day following a CVS. This is normal. Most women have no further symptoms.
- For the first 24 hours after the CVS procedure, don't take antibiotics — and only take one dose of Tylenol if you need it to relieve cramping.
- Follow the guidelines below to know when to call your doctor.

When should I call the doctor?

If you have any of the following, call your doctor:

- Vaginal spotting that becomes heavy bleeding
- Mild cramping that becomes severe cramping
- Flu-like symptoms (aches, chills) or a fever of 100° F or higher

If you have any of these symptoms and can't reach your doctor, go to the nearest hospital emergency room.

Potential benefits	Risks and potential complications	Alternatives
• **Highly accurate results.** CVS is more than 99% accurate in detecting genetic disorders in a fetus. • **Early results.** CVS is usually done between 10 and 13 weeks of pregnancy. Results are usually available 7 days after the procedure.	• **Pregnancy loss (miscarriage).** With an experienced doctor, this happens in fewer than 1 out of 300 to 500 procedures. • **Limb deformities.** This is associated with CVS only when the procedure is done earlier than 10 weeks of gestation. For later procedures, the risk of limb deformity is not greater than for all pregnancies. • **Mild cramping and spotting.** • **No results.** It's possible that you may not get results from this procedure. This can happen when a sample of the placenta cannot be obtained, or when the analysis of the sample fails for some reason. • **Inaccurate results.** Less than 1% of the time, the CVS results do not reflect the genetic makeup of the fetus.	• No prenatal testing • Amniocentesis • Carrier testing (on you and your partner to determine the risk of passing on an inherited disorder such as cystic fibrosis) • Maternal serum screening • Non-invasive prenatal testing (NIPT) • Ultrasound