



# Chorionic Villus Sampling

*Helping you understand your procedure and the consent form*

► Please read this handout before reading and signing the form “Special Consent for Procedural Treatment UH0173.”

This handout describes what to expect from chorionic villus sampling (CVS). Included are benefits, risks and complications, and alternatives.

This handout is in addition to the talks you have with your health care providers. It is important that you fully understand this information, so please read these pages carefully.

## What is chorionic villus sampling?

*Chorionic villus sampling (CVS)* is a procedure that allows your baby to be tested for a variety of health problems. CVS is done during the first trimester of pregnancy, usually between 11 and 14 weeks. During the test, a small sample of *chorionic villi* is taken. Chorionic villi are tiny finger-shaped growths found in the placenta. The genetic material in the villi is usually the same as that in the developing baby, so the villi can be used for genetic testing.

## How is CVS done?

- First, *ultrasound* is used to see your baby’s position and to decide the safest way to do the CVS. The ultrasound stays on during the entire procedure, which takes less than 5 minutes.
  - If the placenta is closer to your spine, the doctor inserts a thin hollow tube, called a *catheter*, through the cervix. This is called a *transcervical CVS*.
  - If the placenta is closer to your belly, the doctor inserts a thin needle into your abdomen. This is called a *transabdominal CVS*.
- Then, while watching the baby by ultrasound, the doctor guides the catheter or needle to the placenta.
- A small amount of villi is removed.
- You are welcome to have a partner, spouse, friend, or family member with you during your CVS.
- You will be sent to the lab to have your blood drawn afterward for *maternal cell contamination tests* (see the information on the left side of page 2).

### What can CVS test for?

The chromosomes are examined, which will diagnose conditions such as *Down syndrome* and *trisomy 18*. If a hereditary condition such as cystic fibrosis or muscular dystrophy runs in the family, the DNA can be tested to see if the baby has inherited the disorder.

Interpreting CVS results can be difficult. In about 1% to 2% (1 to 2 out of 100) of cases, the results show a mixture of some normal cells and some abnormal cells. This is called *mosaicism*. An amniocentesis can be done to see if the mosaicism also affects the baby, or just the placenta.

If the chromosome results are normal and show that the baby is female, another test is done to be sure the results represent the baby's chromosomes, not the mother's. If that second test shows maternal cell contamination, the CVS can be repeated, or an amniocentesis can be done.

It may take up to 3 weeks to complete testing of the samples taken during your CVS.

### What medicines will be used?

The doctor will use an *antiseptic soap* to clean your cervix or your abdomen before the procedure is done.

If your blood type is Rh negative, you will be given a *RhoGAM injection* after the CVS to prevent problems in future pregnancies.

### What are the benefits of CVS?

1. CVS allows a clear diagnosis of some health problems. Some people find that knowing a diagnosis is better than being unsure about their baby's health.
2. Most of the time, test results are normal. If you have been worried about your baby's health, normal test results may make you feel better about your pregnancy.
3. Some women feel that having more information about the baby's health will help them prepare better for the baby's arrival. Others do not want to raise a child with special needs. Having a diagnosis allows parents to make choices, such as choosing an adoption plan or stopping the pregnancy.

### What are the risks and complications of CVS?

The doctor will take steps to make the risks of the CVS as low as possible, but no procedure is completely risk-free.

The major risk from CVS is miscarriage. A miscarriage may occur if an infection starts in the uterus, if the placenta separates from the uterus, or if the sac surrounding the baby doesn't heal after the procedure, allowing amniotic fluid to leak out.

Without CVS, about 2% to 3% (2 to 3 out of 100) of pregnancies will miscarry between 8 and 14 weeks. CVS adds an extra 1% (1 out of 100) risk of miscarriage. Said another way, out of every 100 CVS procedures done, 99 women (99%) do **not** have a miscarriage.

Early studies of CVS raised the concern that it increases the risk of birth defects of the fingers and toes. This risk is not increased if a CVS is done after 10 weeks of pregnancy.

There are some limitations to CVS:

- Conditions of the brain and spine, such as *spina bifida*, are not diagnosed by CVS. Many health problems and birth defects cannot be diagnosed by **any** prenatal tests. Having normal test results from CVS does not guarantee the baby is healthy (see information on the left side of this page).

**What is normal to experience after a CVS?**

- Sometimes there will be mild, menstrual-like cramping for the first few hours (you can take Tylenol for this).
- After a transcervical CVS, light spotting may occur. Do not have sexual intercourse, douche, or use tampons until the spotting has stopped.
- After a transabdominal CVS, there may be bruising or soreness on your skin where the needle was inserted.
- Do NOT do normal daily activities until any cramping and spotting have stopped.

- It is not always possible to obtain villi. Sometimes the doctor can try a second time. If the second try doesn't work, your CVS will be rescheduled for another time.
- Sometimes the lab is not able to examine the baby's chromosomes because cells collected from the CVS do not grow. This happens less than 0.1% of the time (less than 1 out of 1,000 times).
- Sometimes the chromosomes cannot be analyzed with as much detail as usual. This happens in about 5% (1 out of 20) of cases. Large changes in the chromosomes will still be seen. But, smaller changes may be missed.

**What are the alternatives to CVS?**

You may decide not to have a CVS. Doing a CVS is your choice, and the decision is a personal one. Health problems that can be diagnosed by CVS can also be diagnosed when the baby is born.

Some women feel the risk of a health problem is so low that they are not concerned. Others decide they don't want to risk a miscarriage and prefer to learn the diagnosis after the baby is born. Some families feel they can prepare for the birth of a child with special health needs without knowing a diagnosis.

If you want to have a different kind of diagnostic test during the pregnancy, an *amniocentesis* can be done between 16 and 22 weeks.

**What follow-up care is needed?**

There should be no ill effects from the CVS. You can return to work as long as your job does not require heavy physical activity.

**For 24 to 48 hours after your CVS, we suggest that you:**

- Stay off your feet as much as possible.
- Drink extra fluid.

**Also avoid:**

- Heavy physical activity, such as running or other exercise.
- Lifting heavy objects (10 pounds or more).
- Sexual intercourse or sexual activity.

## Questions?

Your questions are important. If you have any questions about CVS or the risks, benefits, or alternatives to it, talk with your provider before signing any consent forms.

Prenatal Diagnosis  
Clinic: 206-598-8130

Maternal and Infant Care  
Clinic: 206-598-4070

## When to Call Your Doctor

*Call your health care provider right away if you have any of these symptoms after your CVS:*

- Vaginal bleeding.
- Severe or rhythmic cramping or pain in the lower abdomen.
- Leakage of clear fluid from the vagina.
- Fever or chills.
- Diarrhea.
- Flu-like symptoms.

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### Maternal and Infant Care Clinic

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