

Patient Information: Chorionic Villus Sampling (CVS)

What is chorionic villus sampling?

Chorionic villus sampling (CVS) is a prenatal diagnostic test used to determine if a baby has any chromosomal abnormalities. CVS is also referred to as a placental biopsy. Chorionic villi are tiny parts of the placenta. The chorionic villi typically have the same genetic makeup as your baby.

When is the CVS procedure done?

CVS is usually performed between the 12th and 14th week of pregnancy.

How is the CVS procedure done?

There are two ways to collect cells from the placenta. Your doctor will look at your placenta by ultrasound and then determine which way the procedure will be performed depending on the location of the placenta.

- **Vaginally:** If the placenta is located on the back wall of the uterus, the procedure is typically done vaginally. A speculum is used, the vagina is wiped down with a sterilizing solution, and a very thin, plastic tube is inserted into the vagina and through the cervix. With ultrasound guidance, a small sample of the placenta is removed and then sent to a laboratory for analysis.
- **Abdominally:** If the placenta is located on the front wall of the uterus, the procedure is typically done through the abdomen. A woman's abdomen is wiped down with a sterilizing solution. Next, using ultrasound guidance, a thin needle is inserted through the abdomen until it reaches the placental tissue. A small sample of the placenta is removed and it is then sent to a laboratory for analysis.

The total procedure may take anywhere from 30-45 minutes, although the extraction itself only last a few minutes. Let your doctor know if you have an active sexually transmitted disease or if you have had any bleeding during pregnancy.

What does the CVS feel like?

Overall, most women do not describe the procedure as being painful.

- **Vaginally:** Most women who have a CVS vaginally describe it as being similar to a Pap smear. Some describe a sensation of discomfort, cramping and a feeling of pressure.
- **Abdominally:** Those who have the CVS done through the abdomen may experience some discomfort in the abdominal area, similar to menstrual cramping.

What kinds of genetic disorders can a CVS detect?

CVS detects chromosomal disorders such as Down syndrome, trisomy 18, trisomy 13, and sex chromosome abnormalities. CVS has a 99% detection rate for chromosome abnormalities. CVS does not diagnose all genetic conditions. However, if there is a known family history of a genetic condition, often genetic testing for that condition can be performed on a CVS sample. You can review your family history with a genetic counselor.

Results

Final results from a CVS are typically available 10-14 days after a procedure. If the laboratory determines that the placental sample is large enough, a preliminary test is performed in addition to the long-term final results; this test result is typically available in 24-48 hours. A genetic counselor will call you with the results and a copy will be sent your primary care providers office.

Complications

The risk of complication with CVS may be as high as 1/100 (1%), although some resources report a lower risk. This is in addition to the natural background miscarriage risk of 3-10%. Complications may include bleeding, cramping, loss of amniotic fluid vaginally, infection or miscarriage.

How should I prepare for the CVS?

We ask that you empty bladder when you arrive at the clinic and drink two glasses of water while meeting with the genetic counselor. There are no dietary restrictions. This test does not require an overnight stay in the hospital.

Do I have to have a CVS?

No. CVS is completely voluntary. You will meet with a genetic counselor prior to the procedure to discuss the risks and benefits of the CVS. Ultimately you decide whether or not you would like to have this procedure.

Questions?

Please feel free to contact us if you have any questions or concerns (608) 417-6667. Also, please visit our website (unitypoint.org) for more information about other services provided at UnityPoint Health - Meriter's Center for Perinatal Care Clinic.

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