

In making a decision to have chorionic villus sampling (CVS), we feel it is important for you to consider its risks, benefits and limitations.

WHAT IS CVS?

CVS was first offered to pregnant women in 1984. Worldwide experience now exceeds 150,000 CVS procedures. Studies of over 80,000 patients have helped establish the risk and accuracy of the procedure. CVS involves withdrawing a small amount of chorionic villi (the fluffy tissue of the placenta) from the uterus (womb). The chorionic villi and the embryo develop from the same fertilized egg. The villi can be studied to determine the baby's chromosomes and, sometimes, other genetic information about the baby. CVS is typically performed between 11 and 13 weeks of gestation (counting from the first day of the last period).

WHAT INFORMATION CAN BE OBTAINED BY CVS?

The major condition diagnosed with CVS is a chromosome problem, such as Down Syndrome. Chromosomes are the packages of genetic information inside the body's cells that control the baby's development. The sample obtained from CVS is used to determine the baby's chromosome number (including gender). It may be possible to test for a certain genetic disease present in a family member (cystic fibrosis is an example) but these tests must be scheduled before the procedure.

It is important to realize that every pregnancy has a 3% risk for a serious birth defect. These defects, however, cannot be identified by CVS.

For example, CVS does not provide information about a common birth defect known as a neural tube defect (NTD), which includes spina bifida and anencephaly. Women having CVS are therefore encouraged to have a blood test, the AFP (or MSAFP) test, at 15-20 weeks of pregnancy (counting from the first day of the last period). This blood test determines if there is a higher chance for a baby to have a NTD, and whether further testing is recommended. Couples with a family history of a NTD or another birth defect may wish to consider other prenatal testing options (including targeted ultrasound and amniocentesis).

WHY HAVE CVS?

The greatest advantage of CVS is that results are available earlier in the pregnancy than with amniocentesis. The most common reason for having CVS is when a woman will be 35 years or older at delivery. This is because women of this age have a higher chance of having a baby with Down Syndrome or another chromosome problem. Other reasons for having CVS include a previous pregnancy or child with a chromosome problem or a family history of a genetic condition for which there is a prenatal test.

HOW IS CVS DONE?

An ultrasound examination is performed before and during the CVS procedure. Ultrasound uses sound waves (not x-rays) to determine the number of babies, locate the placenta and baby, and measure the baby. There is no evidence of harm to mother or baby from ultrasound during pregnancy.

In the ultrasound room, you will be asked to lie flat on a bed. The ultrasound evaluation will be completed and the placenta will be located. CVS is then performed by a specially trained obstetrician. Depending upon the physician performing the procedure, a transabdominal or transvaginal approach is used. The procedure will be explained in more detail prior to it being performed.

The sampling procedure causes some discomfort and cramping but takes only a few minutes. Ultrasound is used throughout the procedure to ensure the needle is in the proper place.

WHAT ARE THE RISKS AND COMPLICATIONS?

The most serious risk with CVS is miscarriage. Since CVS is performed in the first trimester of pregnancy and miscarriage in the first trimester is not uncommon, it is difficult to know whether a pregnancy loss that occurs after CVS would have happened anyway. Nevertheless, it is known that CVS slightly increases the chance for a miscarriage. The chance of a miscarriage after CVS is approximately 1 in 100 (1%). An additional risk associated with CVS is infection and, although rare, is a serious complication. If infection occurs, antibiotic treatment in the hospital is needed. If the infection does not respond to antibiotics, it is possible that the pregnancy would need to be ended.

In 1991, a report from England described several babies born with serious limb problems after CVS had been performed during the pregnancy. This report was followed by a number of studies that evaluated the association between CVS and limb problems. The risk appears to be present when CVS is performed during the 8th or 9th week of gestation. When CVS is done after 10 completed weeks of gestation (or 8 weeks from conception), the risk for limb reduction defects approaches the risk in the general population (5 affected babies for every 10,000 born). For this reason we perform CVS only after 10 weeks gestation. If you are less than 10 weeks gestation by ultrasound, your CVS procedure will be rescheduled for the appropriate time.

A repeat CVS or other procedure is offered when inadequate villi are obtained or cell growth does not occur in the laboratory. These situations occur in less than 1% of cases and do not mean that there is a problem with the baby. About 1% of the time, a CVS result cannot tell us whether the baby's chromosome pattern is normal or abnormal. These situations are handled on an individual basis and often require further testing including examination of the parents' chromosomes and/or amniocentesis. Inconclusive results can also occur after amniocentesis but do so less frequently.

HOW DO I PREPARE FOR THIS PROCEDURE?

You do NOT need to have a full bladder for the amniocentesis. You may eat whatever you would like prior to the test.

WHAT SHOULD YOU DO AFTER A CVS?

It is recommended that you minimize your activity for 24 hours and avoid heavy lifting (including toddlers), strenuous activity and intercourse. You may resume your regular schedule after 24 hours as long as you feel well.

If your blood type is negative, you will receive a Rhogam injection immediately following the CVS procedure. At 18 weeks of pregnancy we recommend a targeted (level II) ultrasound to evaluate the baby's development. The AFP (or MSAFP) blood test to screen for a neural tube defect is also recommended at 15-20 weeks. This blood test should be done prior to your targeted ultrasound so results are available.

WHEN SHOULD YOU CALL YOUR HEALTH CARE PROVIDER?

1. Some women have light spotting/vaginal bleeding after the test and this is normal. If you have bleeding like a period, you should call.
2. You may have mild cramping similar to menstrual cramps for the rest of the day and this is also normal. However, if the pain gets worse than mild cramps or is accompanied by bleeding, you should call.
3. If you have a fever higher than 100 degrees in the next 10-14 days, you should call.

WHEN WILL YOU KNOW THE RESULTS?

It usually takes 7-10 calendar days to get your results. This is because the laboratory must grow the cells in culture before examining them. As soon as results are available, we will notify you by telephone. If the results show a problem, you will have an opportunity to meet with us to discuss the results and alternatives available to you.

WHAT IF YOU HAVE QUESTIONS OR NEED AN APPOINTMENT?

A genetic counselor is available to meet with you and discuss your specific situation and concerns. If you are considering CVS, a consultation with our genetic counselor is arranged prior to scheduling the CVS procedure. You can obtain additional information by calling Saint Alphonse Maternal-Fetal Medicine at (208)367-5544.

CHORIONIC VILLUS SAMPLING (CVS)



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