

Chorionic Villus Sampling

Your doctor has referred you to discuss Chorionic Villus Sampling (CVS). Ample time will be available at your visit to discuss any questions you may have. You may find it helpful to read the description of the indications for the procedure and its risks and benefits below.

WHAT IS A CVS?

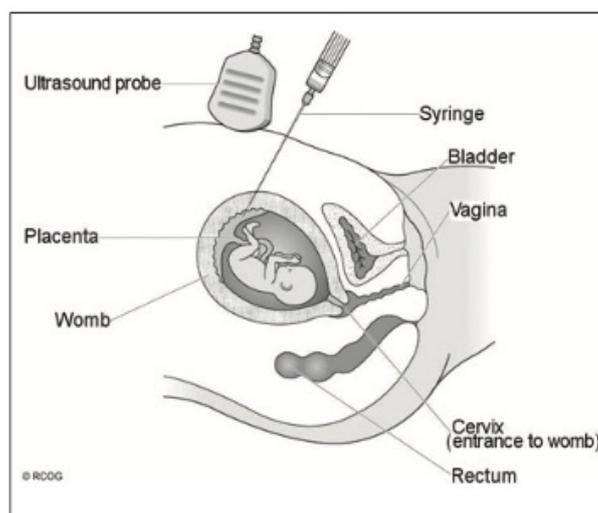
CVS is a procedure where a small amount of the placental tissue from the developing pregnancy is removed via a needle. It is then sent to the laboratory for genetic testing

WHEN & HOW IS IT PERFORMED?

CVS is usually performed from the 11th to the 14th week of pregnancy onwards. Sometimes the procedure may need to be deferred for a week or two for technical reasons. In some cases, the CVS cannot be performed, usually when the placenta is not easily accessible. In this case, an amniocentesis will be recommended at 15 weeks.

After an ultrasound scan, the woman's abdomen is cleaned with a sterile solution and then a sterile sheet is placed over her. The ultrasound probe is placed in a sterile bag and, whilst the doctor is scanning, a local anaesthetic is injected into the skin and muscle of the abdominal wall to numb the tissues. This stings like a bee sting momentarily. Then a fine needle is inserted through the abdominal wall and into the uterus. A syringe is attached to the needle and using suction placental cells are withdrawn through the needle. The needle is then removed. The procedure only takes two to five minutes only. This procedure may be a little uncomfortable but is similar to having a blood test.

If the woman has the Rhesus negative blood group, she will have an injection of Anti-D after the procedure.



WHAT ARE THE INDICATIONS?

In New Zealand, women are offered screening with the combination of a scan (Nuchal Translucency) and a blood test to assess the risk of the fetus having Down Syndrome (Trisomy 21). Women who have had a high risk result with this screening may wish to have a CVS to determine whether the fetus has this genetic abnormality.

Some women may not have a high risk of a genetic abnormality but wish to have an amniocentesis for reassurance.

WHAT IS THE TESTING?

When the fetus is forming from the fertilised egg, the cells keep dividing to produce all the cells needed for the fetus. In addition the cells that make up the placenta also come from the same ball of cells, meaning that the placenta has the same genetic make-up as the fetus. These placental cells are identified in the laboratory and used for the genetic analysis.

Every cell of the body contains genetic material stored in the nucleus. There are thousands of genes which code for many features and characteristics. The genes are stored in long strands called chromosomes. Each cell has 46 chromosomes which are made up of 23 pairs. One of each pair comes from the mother and one from the father. In the laboratory the number and size of the chromosomes is examined. This is called a Karyotype. The individual genes are too small to see and different testing is done for these if it is indicated.

Trisomy 21 occurs when there are three chromosomes at pair number 21 rather than two. This brings a lot of extra genetic material and genes which lead to the condition known as Down Syndrome.

Chorionic Villus Sampling **CONTINUED**

The two other conditions which are seen most commonly are **Trisomy 13 and 18**. They have an extra chromosome at pair 13 and 18 respectively.

The results will go to your Lead Maternity Carer (LMC) and will take 10 to 14 days. You can choose to find out the sex of your baby.

RISKS OF THE TESTING

There is a risk of miscarriage with CVS of approximately 1 in 500. **Bleeding or cramps after 12 hours are abnormal and you should call your LMC.** Although the placenta is derived from the same cells as the fetus, in 1 in 100 cases the placenta contains more than one type of cell. This is called a mosaicism and in the vast majority of cases the fetus is normal. However, it is recommended to perform an amniocentesis as well to confirm the fetus is normal.

LIMITATIONS OF TESTING

This test will not diagnose many abnormalities e.g. cleft lip & palate, spina bifida and cystic fibrosis. Careful scanning will be used to screen for structural abnormalities and an anatomy scan is recommended even when a Karyotype is reported as normal.

THE TESTING PROCESS

Specimen testing is either done through Auckland District Health Board or IGENZ (a private testing laboratory) or a combination of the two.

Women who are New Zealand residents and are identified as high risk (i.e. maternal age etc) have their Karyotype costs covered through the ADHB. You can also choose to have an additional test done through IGENZ called Fluorescent Insitu Hybridisation or FISH). This is an optional test which specifically targets certain chromosomes and produces limited results within a shorter time frame than the standard full test.

Low risk Karyotype testing is done through IGENZ. You can also opt to have the FISH test done.

PRICING

The criteria for a CVS and levels of risk can vary from patient to patient. Once an appointment has been made for you, our booking staff will contact you at a later date with specific pricing details.

