Chorionic Villus Sampling (CVS)

Introduction
This leaflet provides information for patients who require Chorionic Villus Sampling (CVS).

What is (CVS)?
Chorionic villus sampling (CVS) is a procedure performed during pregnancy, which takes a small sample of the developing placenta for testing. CVS is used to detect what are known as chromosome disorders, the most common of which is Down’s syndrome. If there is a specific family history of inherited disorders it may be possible to test for these as well. CVS may not detect other minor chromosomal abnormalities or mosaicism, which is a rare form of Down’s syndrome. Mosaicism is where some cells have the normal amount of chromosomes but other cells have an extra chromosome. CVS does not screen for neural tube defects such as spina bifida (a malformation with the spine).

When can the test be performed?
Chorionic villus sampling is performed after 11 weeks of pregnancy.

Who is offered the CVS test?
Your doctor or midwife will offer you CVS is you have received a higher-risk result from the blood screening test for Down’s syndrome.

You may also be offered the test if:
- you or your baby’s father, have a higher risk of passing on an inherited abnormality to your baby, for example cystic fibrosis, sickle cell disease or thalassaemia major
- you have had a previous pregnancy where your baby was born with a genetic or chromosome abnormality
- you or your baby’s father, or close relatives in either of your families have been born with abnormalities.
How is CVS performed?

The test takes place in the Maternity Ultrasound Department. It will be performed by a doctor who is skilled at this procedure. Please attend for the test with a full bladder.

An ultrasound scan will be performed before the CVS test, to measure and check the baby and locate the position of the placenta. If the ultrasound scan is satisfactory, the test will be performed. Sometimes the placenta is behind the fetus and in that circumstance the test cannot be performed. It may be possible a week or two later, in which case you will be offered another appointment.

All CVS procedures carried out in Gloucestershire Hospitals NHS Foundation Trust are performed through the abdomen. After cleaning the abdomen with antiseptic solution a local anaesthetic will be given by injection into the area.

A fine needle will then be passed through the abdominal wall, into the placenta using the ultrasound scan for guidance.

A sample of tissue is removed from the placenta (through the needle) and sent to the laboratory for testing.

It is possible during this test that some of the baby’s cells can mix with yours. This is only a problem if your blood group is rhesus negative. If your blood group is rhesus negative it is recommended that you have an Anti-D injection, immediately following the amniocentesis. Anti-D prevents your body producing a reaction to your unborn baby’s blood if its blood group is different to yours.

Your partner is welcome to be with you during the test. The procedure will be explained to you in detail and your consent for the procedure will be requested before this test is performed.

Is the test painful?

Most women describe the test as uncomfortable rather than painful.

After the test

Removing the sample takes just a few minutes. You will be shown your baby on the scan monitor following the procedure if you wish. It is advisable to rest for 48 hours and avoiding heavy lifting or strenuous exercise. We advise that you do not drive home.

You may experience some ‘period type’ discomfort, which may last 1 to 2 days.
You can take paracetamol for any discomfort but please remember not to take more than 8 tablets in 24 hours. There may also be some slight ‘spotting' or vaginal bleeding but this should settle in a couple of days. If the bleeding increases or continues please contact the Maternity Advice Line/ Triage.

Risks

As with amniocentesis there is a risk of miscarriage following the test. The miscarriage rate following CVS is 1 to 2% above the normal risk of miscarriage (1 to 2 women in 100 women who have a CVS will miscarry). There is a small risk (less than 1 in 1000) that the test will result in a serious infection.

When do you get the results?

The result, called the Quantitative Fluorescence- Polymerase Chain Reaction (QF-PCR), should be available within 3 working days. This test specifically looks at 3 chromosomes that are the cause of Downs, Edwards or Patau’s syndrome (the most common of the chromosomal abnormalities). The sex of the baby will also be available from these results.

We will notify you by telephone as soon as we have the results, unless you request otherwise.

In approximately 1 to 2% of cases the results are unclear, in which case a further invasive test such as amniocentesis may be needed. If this is the case the midwife will explain and give you a leaflet about amniocentesis.

What if the results are abnormal?

This does not happen very often, but if any abnormality is found we will discuss the results with you and how it would affect your baby. This may include continuing with your pregnancy or deciding to have a termination of your pregnancy. You will be supported in whatever choice you make.
Contact information

If you have any further queries or concerns regarding CVS please contact one of the antenatal screening midwives on the number below:

**Antenatal Screening**
Gloucestershire Royal Hospital
Tel: 0300 422 6106
Monday to Friday, 8:30am to 4:00pm
Cheltenham General Hospital
Tel: 0300 422 2415
Monday to Friday, 8:30am to 4:00pm

If you have significant bleeding or pain after the procedure, please contact:

**Maternity Advice Line/Triage**
Tel: 0300 4225541

**Further information**

**The Downs Syndrome Association**
Tel: 0845 230 0372
Monday to Friday, 10:00am to 4:00pm
Website: [www.downs-syndrome.org.uk](http://www.downs-syndrome.org.uk)

**Antenatal Results and Choices (A.R.C)**
Tel: 0845 077 2290 or
Tel: 020 7713 7486
Monday to Friday, 10:00am to 5:00pm
Website: [www.arc-uk.org](http://www.arc-uk.org)

Content reviewed: February 2016