East Sussex Hospitals NHS
NHS Trust

Patient Information

Obstetrics and Gynaecology

# Chorionic Villus Sampling (CVS) and Amniocentesis

## Diagnostic tests and screening tests

Each year nationally, approximately 30,000 (5%) pregnant women are offered diagnostic testing (amniocentesis or CVS) to find out if their baby has a genetic or chromosomal problem before the birth.

This information leaflet has been written to provide you with information about the risks, benefits and alternatives of CVS and amniocentesis so that you (and your partner) can make an informed decision about whether or not to have testing and so that you can know what to expect if you decide to go ahead.

CVS and Amniocentesis are diagnostic tests. Diagnostic tests can tell you if your baby is affected by any chromosomal condition and are usually offered if an initial screening test indicates a high risk result.

A screening test will not be able to tell definitely whether your baby is affected by a condition or not. The result of the test will be either that you are in a low risk group or a high risk group, and will help you make a decision about whether to have a diagnostic test or not.

If the screening test is low risk, it means that the baby has only a very small chance of having a chromosomal condition and diagnostic testing is not considered necessary. Very occasionally, despite a low risk screening test result, a baby will be affected by a particular disorder. This is called a false negative screening result.

If the screening test result is high risk it means that there is a higher chance that your baby may be affected by a chromosomal condition. You will be told what the risk of this happening is and diagnostic testing would be offered. Diagnostic testing is very accurate and will tell you if your baby is affected. In the majority of cases, despite a high risk screening test result, your baby will not be affected by a disorder. This is called a false positive screening result.

You can choose to opt out of the screening process at any time if you change your mind.

## What is CVS?

CVS involves examining chorionic villi by taking a fragment of the placenta and examining it. Both the baby and the placenta (afterbirth) are normally developed from the same cell so that the chromosomes present in the cells of the placenta can be used to check the chromosomes of the baby. The test can be performed from 11 weeks of pregnancy.

## What is Amniocentesis?

Amniocentesis involves taking a small amount of fluid from around the baby and examining the cells in the fluid. This fluid contains cells from the baby which are tested in the laboratory. The test is most safely performed from 16 weeks of pregnancy onwards.

# Patient Information

## Obstetrics and Gynaecology

### Chorionic Villus Sampling and Amniocentesis - continued

## Why is it done?

CVS or Amniocentesis is not offered routinely to all pregnant women. It is used frequently to test for Down's syndrome which is the commonest of the chromosome disorders but it can also be used to test for other specific genetic disorders. Although you may be thinking of having this test to detect Down's syndrome (which involves chromosome 21), chromosomes 13 and 18 will also be checked. This means that even if your baby does not have Down's syndrome, the test may occasionally detect problems with chromosomes 13 and 18 instead. If the results show anything abnormal you will be told what the abnormality is and how this will affect your baby.

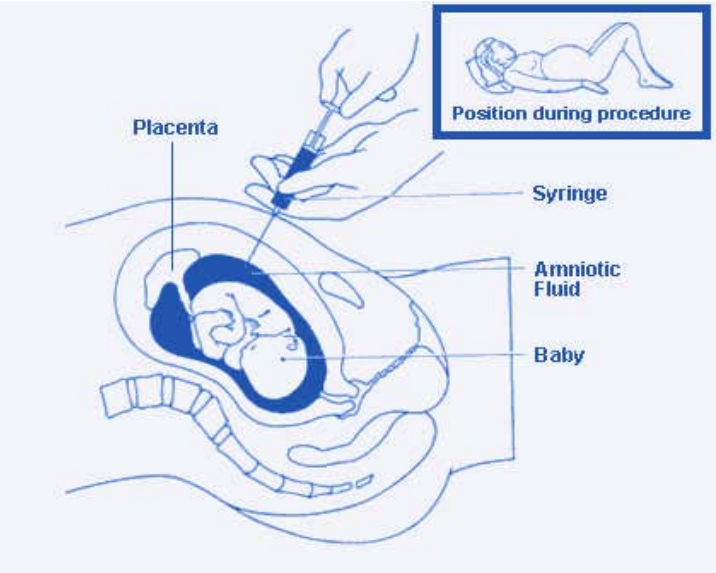
## Who Should Consider CVS or Amniocentesis?

The final decision about having any test in pregnancy is yours but you may like to consider amniocentesis if:

- You are aged 36 years and over.
- You have missed the opportunity for antenatal screening test such as nuchal translucency (NT) or blood test (Triple test).
- You have had a high-risk result from a nuchal translucency (NT) scan or blood test (Triple Test).
- A potential problem has been found on ultrasound scan which may be suggestive of a chromosomal abnormality.
- You have had a pregnancy terminated for a genetic problem in the past.
- You have had a baby with Downs syndrome or if there is a family history of genetic diseases.

## How is the test done?

The procedures are very similar. Before the test is done, an ultrasound scan is carried out to check your baby's estimated date of birth, the position of the baby and to find out where the placenta is.



# Obstetrics and Gynaecology

## Chorionic Villus Sampling and Amniocentesis - continued

The skin over the womb area is cleaned with antiseptic solution and whilst the baby's position is monitored using the scanner a fine needle is passed into the womb. In CVS a small piece of chorionic tissue (about the size of a few grains of rice) is removed and examined whereas in amniocentesis approximately 20mls of fluid is removed. The sample is then sent to the laboratory for testing. Occasionally depending upon the position of the placenta, CVS may be carried out through the neck of the womb. Very occasionally the doctor is unable to get enough fluid or tissue with the first attempt and it may need to be repeated.

### Does it hurt?

Many women ask this question. Although everyone reacts differently, most women would say the test is uncomfortable rather than painful (similar to period pains) and like having a blood test the thought of it is often worse than the actual test.

### What will it tell me and how reliable is it?

CVS fails to give a reliable result in less than one in 100 cases. Amniocentesis fails to give a reliable result in one in 1000 cases. In these cases it is not possible to say whether the result is positive or negative. In rare cases the genetic material of the placenta and the baby can be different which will also affect the reliability of the test.

### Are there any risks?

Nationally of the 30,000 women offered invasive testing half will go on to have the test performed.

There is a small risk of trauma, infection, bleeding and miscarriage.

Approximately one in 50 (2%) of women who have CVS will go on to have a miscarriage.

Approximately one in 100 (1%) of women who have an amniocentesis will go on to have a miscarriage.

The specific rates of miscarriage in the specialist centres will be discussed with you.

### Where is the test done?

The CVS or amniocentesis is arranged at a specialist centre in one of the main London hospitals. This is usually at the Fetal Medicine Unit, St Thomas' Hospital or at the Harris Birthright Centre at Kings College Hospital.

### What will happen when I get there?

When you go for your appointment a specialist midwife will be available for you to talk to about the test fully before you make a final decision on whether to go ahead. Staff recognise that everyone has their own questions and concerns to discuss and the midwife will usually be able to answer any questions you may have before the test.

# Obstetrics and Gynaecology

## Chorionic Villus Sampling and Amniocentesis - continued

### How long does the test take?

The tests only take a few minutes but you will probably be in the hospital for longer. We recommend you take someone with you to support you before, during and after the test.

### What happens afterwards?

It is a good idea to take things easy for a couple of days avoiding heavy lifting or strenuous exercise. Any mild period-like pain is normal and may last between 24 and 28 hours. It is not unusual to have some 'spotting' (mild bleeding) after having a CVS. It is safe for you to take Paracetamol to help it settle. If you have excessive pain, are leaking fluid, bleeding or develop a high temperature you should immediately contact your midwife, GP or maternity unit. You should discuss returning to work with the midwife after the procedure has been done.

### When will I get the results?

The results for Trisomy 13, 18 and 21 will be available after three working days.

If the results are normal the result will be sent to you by post. If there is a problem detected you will be contacted by telephone as soon as the results are available. This will also give you an opportunity to discuss the findings.

Your hospital consultant, midwife and GP will also be informed of the result.

The majority of women having a CVS or amniocentesis will have a normal result. Their pregnancy will proceed without problems and they will have a normal baby. Unfortunately in a few cases the results of the CVS or amniocentesis will be abnormal.

If you are found to have a baby that is affected by a chromosomal condition, you have a number of choices: continuing with your pregnancy and making preparations for having a baby with a disability, having your baby adopted, or terminating the pregnancy. This can be a very difficult decision for you to make and your health care professionals will try to provide you with the best available evidence in order for you to make the decision that best suits your circumstances.

### Deciding whether or not to be tested

There are likely to be a lot of complex factors that influence your decision whether or not to be tested including your family and friends, age, spiritual beliefs and your personal experience. It is very much an individual process.

In order to make your decision you will need to think about all the information you have been given about the tests and their reliability and compare this with your views on terminating a pregnancy, the meaning a disabled child would have on your life and how acceptable the risk of miscarriage during the test is to you.

Our Antenatal Clinic Midwives are available to give you information and support and can be contacted at Conquest Hospital (01424) 755255 ext 6464 or at Eastbourne DGH (01323) 417400 ext 4158.

# Obstetrics and Gynaecology

## Chorionic Villus Sampling and Amniocentesis - continued

## Additional sources for information and support

**The MIDIRS Informed choice leaflets**: Antenatal Screening for congenital abnormalities - helping women to choose. www.infochoice.org

**Antenatal Results and Choices (ARC)**
Telephone: 020 7631 0285 www.arc-uk.org

**Association for Spina Bifida and Hydrocephalus**
Telephone: 01733 555 988 www.asbah.org

**Down's syndrome Association**
Telephone: 020 8682 4001 www.dsa-uk.com

**MENCAP**
Telephone: 020 7454 0454 www.mencap.com

**If you need more information about any aspect of the Amniocentesis or the CVS test, you are welcome to contact:**

Clinical Genetics Department
7th Floor, New Guy's House
Guy's Hospital, St. Thomas's Street
London SE1 9RT
Telephone: 0207 188 1364

Harris Birthright Centre
Kings College Hospital
Denmark Hill
London SE5 8RX

Fetal Medicine Unit
8th Floor, North Wing
St Thomas' Hospital
Lambeth Palace Road
London SE1 7EH
Telephone: 0207 188 8003

The Women's Health Directorate Team and the Women's Focus Group developed this leaflet. Recommendations from the Royal College of Obstetricians and Gynaecologists and information from the Harris Birthright Research Centre for Fetal Medicine and the Clinical Genetics Centre at Guys and St Thomas' hospitals were incorporated in this leaflet.

## Important information

Please remember that this leaflet is intended as general information only. It is not definitive. We aim to make the information as up to date and accurate as possible, but please be warned that it is always subject to change. Please, therefore, always check specific advice on the procedure or any concerns you may have with your doctor.

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# Patient Information

## Obstetrics and Gynaecology

### Chorionic Villus Sampling and Amniocentesis - continued

After reading this information are there any questions you would like to ask? Please list below and ask your midwife or doctor.

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## Reference

Date Agreed: November 2007
Review Date: November 2008
Responsible Clinician: Nicola Mason, Project Co-ordinator, Obstetrics and Gynaecology

## Hand Hygiene

In the interests of our patients the Trust is committed to maintaining a clean, safe environment. Hand hygiene is a very important factor in controlling infection. Alcohol gel is widely available throughout our hospitals at the patient bedside for staff to use and also at the entrance of each clinical area for visitors to clean their hands before and after entering.