Public Health England

NHS

NHS Fetal Anomaly Screening Programme

Chorionic villus sampling (CVS) and amniocentesis: information for parents

Public Health England leads the NHS Screening Programmes

Chorionic villus sampling (CVS) and **amniocentesis** are diagnostic tests. Diagnostic tests can tell for definite if the baby has a serious condition by checking their chromosomes (genetic information).

CVS and amniocentesis are both invasive tests. Invasive tests involve taking a sample from within the woman's body.

Who is this leaflet for?

This leaflet is for pregnant women who are offered a CVS or amniocentesis test.

It can help to talk through possible results and outcomes with your doctor or midwife before deciding whether or not to have a CVS or amniocentesis.

The decision is yours.

We offer you a CVS or amniocentesis if:

- there were abnormal findings at the time of your ultrasound scan
- you have a higher chance screening test result – this may also be called a 'higher risk' result – for Down's and/or Edwards' and Patau's syndromes
- you have had a previous pregnancy/baby affected by a genetic condition
- you or your partner have a family history of another genetic condition, such as sickle cell disease, thalassaemia or cystic fibrosis

It is your decision

The information in this leaflet should support, but not replace, the discussions you have with your healthcare professional. Your healthcare professional will help you make the decision that is right for you and support you in that decision.

They should give you enough time to talk through your options. You can ask for more information and do not have to decide straight away. It is your decision. You can choose to have:

- no further testing
- an invasive test (CVS or amniocentesis)

Your healthcare professional should discuss with you:

- the conditions that CVS or amniocentesis can detect
- the chance of miscarriage from CVS or amniocentesis
- which test (CVS or amniocentesis) would be more appropriate for you
- how we test CVS or amniocentesis samples in the laboratory, the possible results of those tests and their reliability
- the chance that we will need to offer you a repeat diagnostic test
- when and how you get the results of a CVS or amniocentesis test
- your options if you have a test and the baby is found to have a chromosomal or genetic condition

If you decide to have the test

If you decide to have a CVS or amniocentesis, most hospitals suggest you bring someone with you but you should not bring children. Most hospitals say it is safe to eat and drink as normal before and after the procedure.

You may need to have a full bladder when you come for the appointment. Your doctor or midwife will let you know before you come. If you are not sure, you can ask them. Your hospital will give specific instructions.

Both procedures usually take around 10 minutes to perform. Your appointment may be longer to allow time to discuss the procedure beforehand and to rest afterwards.

If you decide not to have the test

If you decide not to have a CVS or amniocentesis then your healthcare professionals will continue to support you throughout your pregnancy.

Chorionic villus sampling (CVS)

If you have a CVS, we take a tiny sample of tissue from the placenta (placental tissue) for testing. The sample contains some of the baby's cells, which contain genetic information.

CVS is usually done from weeks 11 to 14 of pregnancy but can be done later. If the doctor decides it is not safe to do the procedure at a particular time then they may offer you another appointment 7 to 14 days later when the placenta will be larger and easier to reach. CVS can be performed in 2 ways:

- through the abdomen (tummy) – transabdominal
- through the cervix (neck of the womb) – transcervical

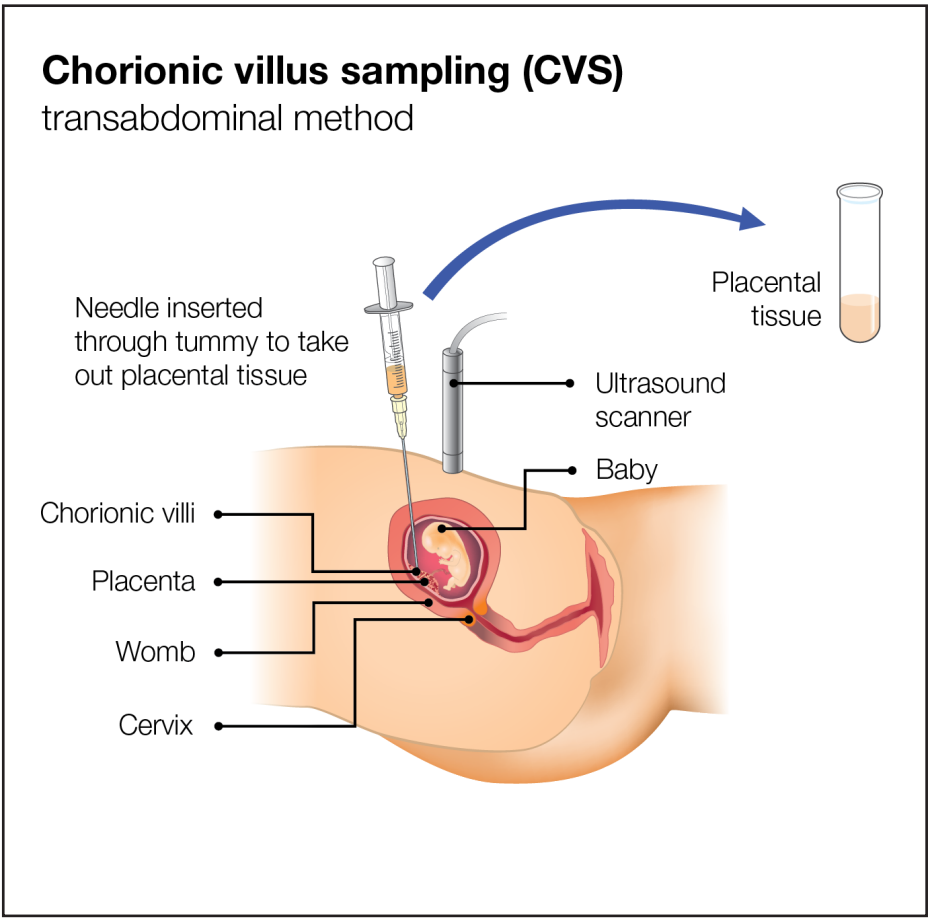
The transabdominal method is more common because it is often easier to carry out. Transcervical CVS is also more likely to cause vaginal bleeding immediately after the procedure, which occurs in about **10 in every 100** women who have this procedure.

There is no difference in the risk of miscarriage between the 2 methods. Transcervical CVS may be preferred to transabdominal CVS if it is easier to reach your placenta this way.

After taking the needle out, the baby is observed for a short time on ultrasound. In a very small number of cases, CVS cannot establish with certainty that the chromosomes in the baby are normal or not. This might be because the sample of cells removed was too small or the abnormality is only in the placenta and not the baby.

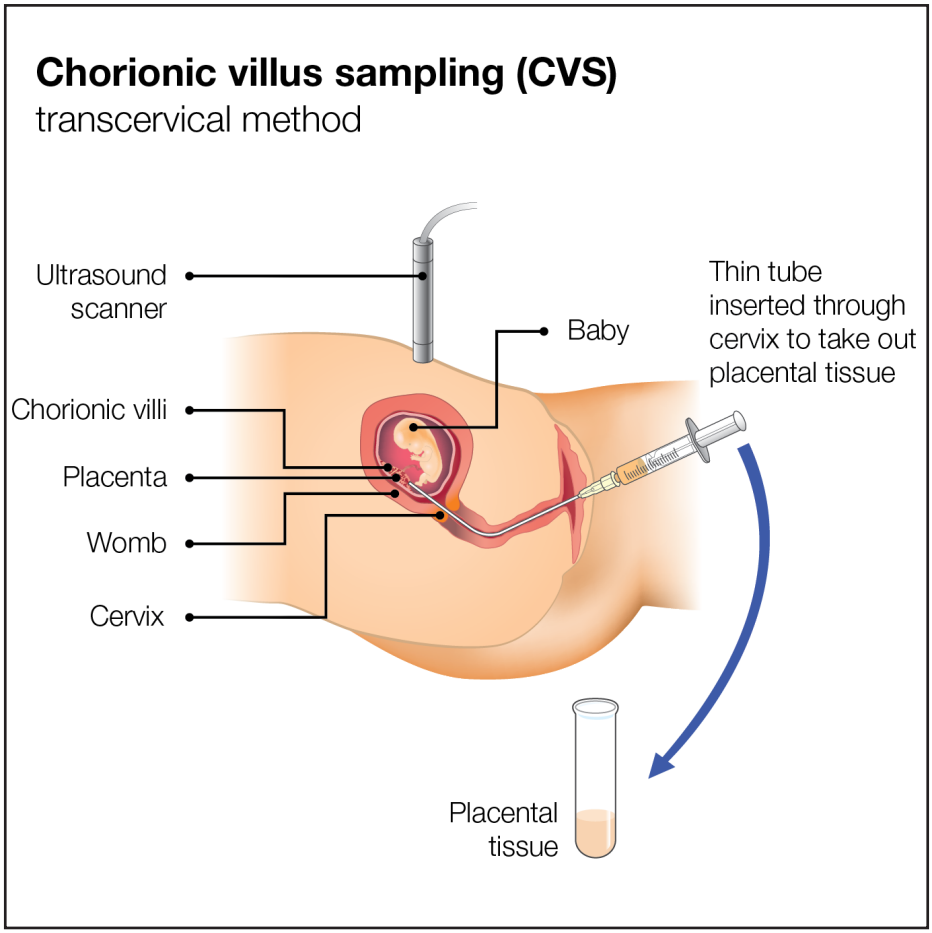
If this happens, it may be necessary to have amniocentesis a few weeks later to confirm a diagnosis.

Transabdominal CVS



We clean your abdomen with antiseptic and may use a local anaesthetic injection to numb a small area. We insert a fine needle through your abdomen and into your uterus to take the sample. We use an ultrasound probe to guide the direction of the needle.

Transcervical CVS



We insert a thin tube attached to a syringe or small forceps through your vagina and cervix, and guide it towards the placenta using the ultrasound scan. We collect a tiny sample of placental tissue through your cervix.

Amniocentesis

If you have an amniocentesis, we take a small amount of amniotic fluid (the water around your baby inside your uterus) for testing. The sample contains some of the baby's cells, which contain genetic information.

Amniocentesis is usually done between 15 and 20 weeks of pregnancy but it can be done later.

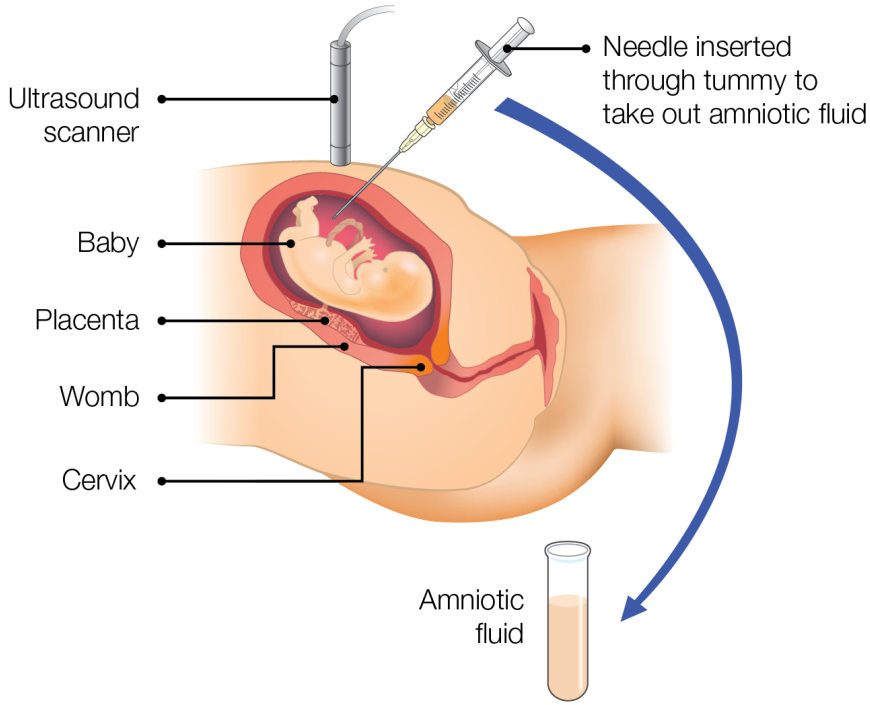
We clean your abdomen with antiseptic and may use a local anaesthetic injection to numb a small area. We insert a fine needle through your abdomen and into your uterus to take the sample. We use an ultrasound probe to guide the direction of the needle.

Occasionally, for **fewer than 7 in every 100** women, we cannot take enough fluid at the first attempt and have to re-insert the needle. This is usually due to the position of your baby.

If a second attempt fails, we will offer an appointment to have the amniocentesis again on another day.

After taking the needle out, the baby is observed for a short time on ultrasound.

Amniocentesis



Possible risks of CVS and amniocentesis

Most women say that CVS or amniocentesis is uncomfortable rather than painful. Some say it feels something like period pain. You may feel anxious before and after the test. You may notice some cramping for a few hours afterwards. This is normal. You can take paracetamol for any discomfort. You do not need to rest or stop driving after the procedure.

Up to one out of every 100 women who have a CVS or amniocentesis will miscarry. We do not know why some women miscarry after these procedures. Most miscarriages happen within 3 days of the procedure but they can happen up to 2 weeks afterwards. There is nothing you can do to prevent a miscarriage after a CVS or amniocentesis.

There is a risk of less than 1 in 1,000 that CVS or amniocentesis will cause a serious infection. You should call your midwife or doctor, or the hospital where you had the test, straight away if you experience any of the following symptoms:

- persistent or severe pain
- a high temperature of 38°C (100.4F) or more
- chills or shivering
- heavy vaginal bleeding
- discharge of clear fluid from the vagina
- contractions

Testing women who are pregnant with twins

You can have a CVS or amniocentesis if you are pregnant with twins.

CVS or amniocentesis in twin pregnancies is more complex and should be performed in a specialist unit. The doctor may need to insert the needle twice to get samples of placenta or fluid from each baby. With CVS there is a small chance of getting 2 samples from the same baby, which could give misleading results.

The risk of miscarriage when having CVS and amniocentesis with twins is about twice as high as in single pregnancies. If this occurs, it may lead to the miscarriage of both babies.

Other considerations

If your blood group is Rh (rhesus) negative, it will be recommended that you have an injection of anti-D immunoglobulin after the procedure to prevent you from developing antibodies against the baby's blood cells.

If you are HIV positive, CVS or amniocentesis might increase the risk of passing HIV on to your baby. You should talk to your obstetrician to decide what is best for you and your baby.

If you have hepatitis B or hepatitis C viruses, CVS or amniocentesis might increase the risk that you pass this on to your baby. The specialist team caring for you will be able to offer further advice.

Possible results

The hospital will send the sample of tissue from your placenta (CVS) or amniotic fluid (amniocentesis) to a laboratory for testing.

Depending on the type of laboratory test, you will usually receive 2 results, the first after 3 days and the second after 2 weeks.

You can usually choose whether to receive the results by phone or come into the hospital again and receive the results face-to-face.

In most cases the result will let you know, one way or the other, whether the baby has the condition the test was looking for.

Most women who have a CVS or amniocentesis will have a 'normal' result. In other words, their baby will be born without the condition the test was looking for.

Some women will be told the baby has the condition the test was looking for.

Very occasionally, women have CVS or amniocentesis to detect Down's, Edwards' or Patau's syndrome and the test detects a different condition.

A 'normal' CVS or amniocentesis test result rules out most chromosomal conditions, but not all. You can discuss this with your healthcare professional if you need to.

What if the result shows the baby has an abnormality?

If the result shows the baby has the chromosomal or genetic condition being tested for, your doctor or midwife will talk to you about what this may mean for you and the baby.

If the result shows that the baby has an abnormality, you should be able to talk to a consultant paediatrician, consultant geneticist or genetic counsellor.

You might choose to:

- continue with your pregnancy
- end the pregnancy (have a termination)

Continuing support and care

Before deciding, you might want to learn more about the condition and talk about your feelings with a midwife, doctor or a support organisation for parents. If you decide to continue with your pregnancy you can talk to your doctor or midwife about how best to care for your baby.

If you decide to end your pregnancy, you will be given information about what this involves. The type of termination procedure will depend on how many weeks pregnant you are when you make your decision.

It can be very difficult deciding whether or not to continue with the pregnancy. Only you know what is best for you and your family.

Your healthcare professionals will continue to support you in whatever decision is right for you.

More information

NHS Choices:

- **www.nhs.uk/conditions/Chorionic-Villus-sampling/Pages/Introduction.aspx**
- **www.nhs.uk/conditions/Amniocentesis/Pages/Introduction.aspx**

For information on how NHS screening programmes use patient information safely and securely, visit **www.gov.uk/phe/screening-data**.

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More information about screening: www.nhs.uk/downs and www.nhs.uk/sct

Order this leaflet: www.gov.uk/phe/screening-leaflets

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