

## CHORIONIC VILLUS SAMPLING (CVS)

### **Information and consent**

CVS tests a small sample of the placenta (the fine placental fronds are called the chorionic villi at this early stage). It is an early test, performed around 11 weeks of pregnancy (for DNA tests or pre-arranged CVS), or 12–13 weeks if following a high-risk first trimester screen or NIPT result. In some situations the NIPT blood test (Non-Invasive Prenatal Test) may be an alternative, we or your doctor will guide you.

#### **CVS may be offered for the following reasons:**

1. **Advanced maternal age.** The risk of having a baby with Down syndrome (Trisomy 21) gets higher as the mother gets older. Testing for age alone is less common now, since tests such as NIPT can be preferred depending on factors such as presence of nuchal thickening and level of risk.
2. **Screening tests are high-risk for a chromosome disorder**, eg NIPT (non-invasive prenatal diagnostic tests), FTS (first trimester screening) including ultrasound, blood tests, or a combination of these, with maternal age.
3. Where a **previous baby had a chromosome problem, or there is high risk for a chromosome abnormality that NIPT does not cover.** CVS may be chosen by women who have had to undergo a late termination of pregnancy.
4. CVS may be offered where **ultrasound findings** suggest a very high risk of a chromosome problem.

*(1 to 4 above relate to chromosome problems)*

5. CVS is also used to check for many **other serious disorders, such as cystic fibrosis or muscular dystrophy.** These are individual gene tests and are tested when there is a known risk of the specific disorder. Families may need tests before the pregnancy. They are **not** part of a “routine” CVS. CVS is the test of choice for DNA tests, because of the many rapidly dividing cells in chorionic villi.

#### **How is CVS done?**

You may be given specific instructions about your bladder which will vary with the position of the placenta. First an ultrasound examination is performed to check the fetus, confirm the stage of pregnancy and locate the angle of access to the placenta. The skin is washed with antiseptic, and then some local anaesthetic is given. A needle is inserted through the skin into the placenta under ultrasound guidance. The sample of the placenta is drawn up through the needle with gentle suction.

**After the test**

We will ask you to sit quietly for several minutes after the test, and please take things gently for at least a day. After a needle through the abdominal wall you can expect to feel sore for a day or two. If in doubt or if you are worried about any symptoms, contact your doctor. If your blood group is Rhesus negative (1 in 5 women), then you will require an "Anti-D" injection to prevent the complication of Rhesus disease.

**What are the risks of CVS?**

The main risk of CVS is miscarriage, which is around 1% above the background rate. There are no other significant risks so long as the test is performed after 10 weeks

**Getting the results**

A rapid result for chromosome tests is usually available within 24-48 hours. This preliminary test is for Down syndrome and other common major chromosome abnormalities. The **final results** require culture of the specimen, which takes around 2 weeks, and will be sent to your referring doctor. The chromosomes contain information of the sex of the baby, so consider whether you wish to know this.

As with any test there are rare circumstances where a result does not become available or where a particular result is not considered trustworthy and a confirmatory test is needed (less than 1% of CVS). Therefore it is important that you make sure your doctor knows how to contact you at all times after the test.

**Is it better to have a NIPT, amniocentesis or CVS?**

This is a very individual question and depends on the parental preference, level of risk and the timing of any information leading to testing. The advantages of CVS are in the early timing and chance of a faster result. This allows:

1. Privacy before the pregnancy is apparent.
2. No delay between recognising a high-risk situation and diagnostic testing.
3. The reassurance of getting a normal result early.
4. A safer medical procedure to terminate the pregnancy if the result is abnormal.

*These factors need to be balanced against a slightly higher risk of miscarriage compared to amniocentesis (1% for CVS compared to ½ % for amniocentesis).*

Do you have any allergies including Betadine or Iodine products? Yes / No  
*If you have any other questions please ask.*

Consent:  
*I have been given adequate information and request this test.*

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_