

**MEDICAL GENETICS PROGRAM**  
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## **PRENATAL TESTING IN PREGNANCY**

### **What prenatal genetic tests are available at LHSC?**

There are two prenatal genetic tests available at LHSC:

1. Amniocentesis
2. Chorionic villi sampling (CVS)

#### **Amniocentesis**

Amniocentesis is performed after 15-16 weeks of pregnancy. An ultrasound machine is used to take a picture of the baby and the uterus. A thin needle is then inserted through mother's abdomen into the fluid around the baby. A small amount of amniotic fluid is removed (approximately 2-3 teaspoons). This fluid contains some cells from the baby. These cells need to be grown for approximately 2 weeks in order to analyze the baby's chromosomes.

A small portion of the fluid will be used for a test that measures the level of alpha-feto protein in the fluid which can give you information about neural tube defects.

The risk for miscarriage associated with the amniocentesis is approximately 1/200 (0.5%) for a single baby, and approximately 1/100 (1%) for twins.

#### **Chorionic Villi Sampling (CVS)**

CVS is performed between 11 and 13 weeks of pregnancy. An ultrasound machine is used to take a picture of the baby and placenta. CVS can be done in two different ways. One way is to insert a catheter (a small tube) through the vagina into the uterus to obtain a small tissue sample from the chorionic villi, which is part of the placenta. The other way is to insert a thin needle through mother's abdomen into the uterus to obtain a small tissue sample from the chorionic villi. The doctor will decide which method is best based on the position of the placenta. The chorionic villi tissue needs to be grown for approximately 2 weeks in order to analyze the baby's chromosomes.

CVS does not give any information about neural tube defects. If you have CVS your doctor, midwife or genetic counsellor can arrange a blood test at 16 weeks to see what the chance is to have a baby with a neural tube defect.

The risk for miscarriage associated with CVS is approximately 1/100 (1%). Other possible concerns with CVS will be discussed during your genetic counselling appointment.

### **How accurate are results?**

The results of CVS and amniocentesis are very accurate for routine chromosome testing. For DNA testing the degree of accuracy depends on the specific test being ordered. It is also important to remember that normal results do not guarantee a healthy baby. In every pregnancy there is a 2-3% chance to have a baby with a birth defect or handicapping condition.

➤ Turn over →

## **Who is eligible for prenatal testing?**

Women are eligible for prenatal testing if they:

- Are 40 years of age or more
- Have a positive serum screen (IPS or MSS)
- Have a fetal ultrasound abnormality
- Have another child with a known chromosome abnormality, metabolic condition, a neural tube defect, or gene disorder
- Have a high risk to have a child with a known chromosome condition, metabolic condition, or gene disorder

## **Where is the testing done?**

Both the amniocentesis and CVS tests are done in the Women's Health Care Clinic (WHCC) at London Health Sciences Centre. A map will be provided or visit our website at [http://www.lhsc.on.ca/Patients\\_Families\\_Visitors/Genetics/](http://www.lhsc.on.ca/Patients_Families_Visitors/Genetics/)

## **What happens at the Women's Health Care Clinic?**

When you arrive at WHCC, you will be asked to show your hospital identification card and Ontario health card to register. You will then be seated in the waiting room. The amount of time you have to wait depends on how busy the clinic is that day. Once you are called into the procedure room a nurse will review your information and ask you to sign a consent form for the procedure. You can bring one support person into the procedure room with you. There is no recovery time required after the testing. Most women can leave the clinic shortly after the procedure.

## **What happens after the tests?**

You will be given a list of instructions to follow after the procedure. Chromosome results will take approximately 2-4 weeks. If additional testing is being performed, results may take longer. Your genetic counsellor will notify you by phone when results are available.

## **What happens if the results indicate there is a problem?**

If there is a problem identified on the amniocentesis or CVS you will be offered an additional genetic counselling appointment where you will meet with a genetic counsellor and/or a medical geneticist for further information.

**If you have any questions or concerns, please do not hesitate to contact us at 519 685-8140 for further information. Additional information can be found at our website:**  
[http://www.lhsc.on.ca/Patients\\_Families\\_Visitors/Genetics/](http://www.lhsc.on.ca/Patients_Families_Visitors/Genetics/)