

# Let us Take care of your self and the miracle inside you...



## Amniocentesis

Amniotic fluid is the water that surrounds the fetus in your uterus (womb). It contains fetal urine and is mainly produced by the kidneys of the fetus. Amniotic fluid contains fetal cells that have been shed from the fetal skin, lungs and bladder.

An amniocentesis is a prenatal diagnostic test that involves using a thin needle to remove a small amount of amniotic fluid (about 12-15 ml) from the amniotic sac. It is usually performed from 15-16 weeks onwards. At the time of amniocentesis an ultrasound scan of the fetal anatomy is also performed, though it is not as accurate as the scan at 19 weeks for anatomy survey.

### What are the common reasons for having an amniocentesis?

- To assess the fetal chromosomes in pregnancies at increased risk at the first or second trimester screening
- If the woman has had a previous pregnancy with a chromosomal abnormality
- If there is a known parental chromosome problem
- If an abnormality is found at the time of an ultrasound scan, an amniocentesis is offered in most cases.
- In certain circumstances an amniocentesis may be indicated to assess the risk for congenital infection of the fetus (e.g. toxoplasmosis or cytomegalovirus infection)

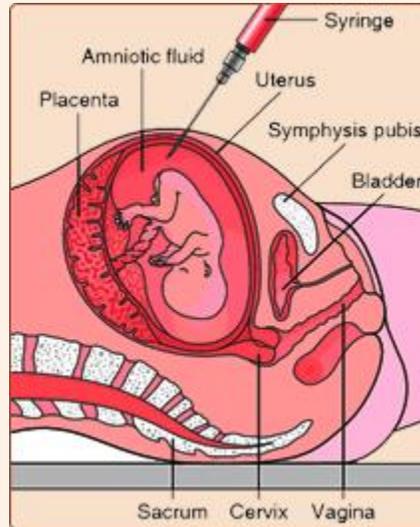
### What to consider before making the decision to have amniocentesis ?

It is often very stressful and difficult to make a decision to have amniocentesis. Hence it is important that you and your partner have fully discussed the issues around amniocentesis and also with your doctor before having the procedure done. It is essential that you discuss the following issues prior to the procedure.

- Which test is most suitable for you; Amniocentesis/ Chorionic villous sampling?
- What is actually involved in the test?
- What are the potential complications?
- How long the results would take?
- What are your options if the test is abnormal and what dilemmas you may face with in that situation?

## What is involved in performing amniocentesis?

An amniocentesis is performed with the use of continuous ultrasound guidance to facilitate accurate placement of the needle into the amniotic sac.



Before the procedure an ultrasound examination is done to assess the pregnancy. Then the skin is cleaned with an antiseptic solution. A local anaesthetic is usually not administered for amniocentesis. A fine 22 gauge needle is inserted through the abdominal wall into the amniotic sac. The needle tip is watched on the ultrasound screen at all the time during the procedure to ensure the needle enters the amniotic sac at the safest location and it avoids contact with the fetus. A syringe is attached to the amniocentesis needle once it is correctly positioned and 12-15 mls of amniotic fluid is aspirated over a period of 30-60 seconds. In most cases only a single needle insertion is required.

Women who are Rhesus negative will need to have an injection of anti-D following the amniocentesis and will be administered by the medical staff immediately following the amniocentesis. Hence **documentation of the maternal blood group is necessary at the time of the amniocentesis.**

## What are the risks of having an amniocentesis?

We try to make your procedure as safe as possible. It is an invasive diagnostic procedure and does carry with it a small but definite pregnancy loss rate. The presence of uterine fibroids or prior vaginal bleeding may increase the pregnancy loss rate following an amniocentesis.

### The risks of complications are:

- Miscarriage (less than 1 in 200)
- Vaginal spotting or bleeding (less than 2 in 100)
- Premature rupture of membranes (less than 2 in 100)
- Infection in the womb (1 in 1000)
- Failed culture (1 in 1000)

### **When will I get the results?**

In general, a preliminary chromosome result is available in 24- 36 hours where fluid is tested using the FISH (fluorescent in-situ hybridization) technique. However the FISH results only shows the results for four common chromosomal disorders, including Downs syndrome.

The full fetal chromosome result will take 10-14 days on average as it involves culturing the fetal cells in a laboratory.

### **What are the advantages of an amniocentesis?**

The main advantage of an amniocentesis test is that, unlike a CVS, it directly assesses the fetal karyotype. Complications such as confined placental mosaicism, which occurs in 1-2% of cases of CVS, do not occur with amniocentesis.

Amniocentesis has a lower pregnancy loss rate as it is performed later in pregnancy than CVS

### **Are there any disadvantages to an amniocentesis?**

Not all abnormalities can be diagnosed with amniocentesis. Only chromosome abnormalities and certain infections can be diagnosed on testing the amniotic fluid. Hence, if the chromosome result is normal, this does not guarantee a normal baby.

Amniocentesis is most commonly performed to determine whether or not the fetus has Downs syndrome or another major chromosomal abnormality present. Occasionally, a rare chromosome abnormality may be found.

There is a pregnancy loss risk of 0.5-1% following an amniocentesis, even in experienced hands. The pregnancy loss rate increases with the number of attempts required to obtain the amniotic fluid, however in the majority of cases we require only a single attempt.

On few occasions it may not be technically possible to safely perform an amniocentesis at the time of your appointment. In those circumstance we will either reschedule the appointment for 5-7 days time (when the fetal membranes are completely fused).

### **Recovery from amniocentesis**

Amniocentesis is usually not a painful procedure, but most women feel some discomfort. Often the stress and anxiety in the days before the amniocentesis are said to be the worst thing about the test by many patients.

Patients who have had an amniocentesis are advised to take it easy for 24-48 hours. They are advised not to do any strenuous exercise or activity such as lifting or picking up young children.

It is common for women who have had amniocentesis to experience some cramping for few days for which Paracetamol may be taken.

**It is not appropriate to have your children attend for an amniocentesis procedure and we would request you to arrange childcare when attending for this procedure. We strongly suggest you have someone with you to attend your amniocentesis.**