

## Amniocentesis

### Consumer Information

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### What is Amniocentesis?

Amniocentesis is offered to women:

- Who are over 36 years of age
- Who have a past history of a child with an abnormality
- Who have had an abnormality in their foetus or unborn baby identified on an ultrasound scan
- With a personal or family history of a chromosomal abnormality or a partner with such a personal or family history
- With a high risk as a result of first trimester screening (see [Nuchal Translucency Scan](#))
- Who are anxious for other reasons about the possibility of their foetus having a chromosomal abnormality

Amniocentesis is a procedure where a needle is inserted into the abdomen to obtain a small amount of amniotic fluid. The foetus grows in the uterus, or womb, inside a bag called the "amniotic sac" surrounded by amniotic fluid.

Amniotic fluid is made by the placenta (the organ that develops inside the uterus to supply food and oxygen, through the umbilical cord, to the foetus) but contains cells and proteins from the foetus which can be tested for the sex of the baby and chromosomal abnormalities such as Down syndrome.

About 130mls of fluid surrounds the foetus at 16 weeks and only 20mls are removed which is naturally replaced by the placenta within 24 hours. The test is best performed between 15-16 weeks.

Amniocentesis is more than 99% accurate and is one of the most accurate tests in medicine.

There is a similar test called Chorion Villus Sampling (CVS) that is also used to test for chromosomal abnormalities such as Down Syndrome and also the sex of the unborn baby. Instead of testing fluid in the amniotic sac, it tests tissue from the placenta itself. CVS is different in that it can also test the DNA (Deoxyribonucleic acid) of the foetus. CVS can be done earlier in your pregnancy but has a higher risk of complications (see [Chorion Villus Sampling](#)).

### How do I prepare for an Amniocentesis?

No preparation is needed but a moderately full bladder is required so that the inside of your abdomen can be clearly seen on the ultrasound scan that will guide the procedure. The facility where you are having the test will provide information about this.

### What happens during an Amniocentesis?

Prior to any testing the specialist doctor performing the test will fully explain the procedure and inform you of the risks and reasons for the test being performed. You will usually be given a consent form to read and sign. If you have any questions feel free to ask at this time.

At the start of the procedure an ultrasound examination is performed. "Ultrasound" is the term used for high frequency soundwaves. A smooth, hand held device called a transducer is moved across the skin of the abdomen to produce an image onto a screen that shows the inside of your body. There is no ionising radiation, which means that it is very safe (see [Ultrasound](#)).

The ultrasound confirms the age of the foetus, assesses the position of the placenta and examines the anatomy or structure of the foetus for any signs of abnormality. The ultrasound will also allow the doctor to assess where the safest position is to insert the needle for the amniocentesis.

The lower abdomen is then cleaned with antiseptic solution. Sterile drapes may be placed over the abdomen depending on the preferred technique of the doctor performing the test.

The procedure is mildly uncomfortable when the needle is inserted into the abdominal wall and wall of the uterus. Some doctors may give local anaesthetic to the skin where the needle is to be inserted but usually this is not needed as the needle is very fine (thin).

The needle is gently inserted through the abdominal wall skin and muscles into the uterus (and then the amniotic sac) using ultrasound pictures or images on a screen for guidance. The ultrasound examination is performed in "real time", which means that the images you see on the screen show what is happening inside your body at that moment like a movie. This is to ensure the needle is in a safe position, away from the foetus and the placenta.

Once the needle is in the sac, fluid is drawn off through the needle which will be sent for analysis. It takes about 30 seconds to draw up the straw coloured fluid.

After the fluid is taken the needle is removed and the foetus is checked again for active heart beat and movement to reassure you and the doctor that no harm has come to the foetus.

## Are there any after effects of an Amniocentesis?

You may experience some mild crampy pain or mild abdominal discomfort after the test. This is because the needle has passed through the muscles of the abdomen and uterus.

The pain should settle with 2 paracetamol, which is safe to take (Aspirin and Nurofen (ibuprofen) should be avoided).

You may also experience some mild spotting of blood but if this progresses to fresh bleeding then you need to contact your doctor /obstetrician immediately.

Some patients may experience nothing at all.

## How long does an Amniocentesis take?

It usually takes about 30 minutes to check the foetus but the actual needle test takes only a few minutes.

## What are the risks of an Amniocentesis?

There are three main risks which will be fully explained to you when you sign your consent form:

1. Risk of miscarriage: About 1 in every 300 women who have Amniocentesis will have a miscarriage.
2. Risk of introducing infection into the amniotic sac (the fluid around the foetus) during sampling: This is very uncommon.
3. Leakage of amniotic fluid: occurs in less than 1 in every 100 women and generally settles. If it continues, you should let your doctor or obstetrician know this as it may affect the pregnancy.

While Amniocentesis is able to identify Down syndrome and genetic or inherited disorders, it needs to be noted that there are some chromosomal disorders for which there are no tests currently available.

## What are the benefits of an Amniocentesis?

The benefit of Amniocentesis is establishing whether the foetus does or does not have Down syndrome or a number of other chromosomal abnormalities.

You will need to weigh the benefits of the test, such as finding out if an unborn baby has abnormalities, against the risks of miscarriage and not knowing about abnormalities.

Some patients wish to know about abnormalities so that they can decide whether to continue the pregnancy or not. Other patients may prefer not to know about these matters before the baby is born.

## Who does the Amniocentesis?

The test is always performed by either a radiologist (specialist doctor) who has experience in the procedure or more commonly an obstetrician – sonologist who is a specialist in obstetric and foetal ultrasound.

## Where is an Amniocentesis done?

The examination is performed in a radiology department of a hospital, private radiology practice or at a specialist clinic for obstetric and gynaecological imaging. The examination is performed in the privacy of an ultrasound room which may be dimly lit to allow the images on the ultrasound machine to be clearly seen by the person performing the test.

## When can I expect the results of my Amniocentesis?

The fluid sample is sent to a special laboratory which will perform a number of tests. The foetal cells are placed in culture medium and allowed to grow in a warm incubator for 10-14 days. The cells are then examined for chromosomes that indicate an abnormality. There are 23 pairs of chromosomes, all of which are examined in detail. This process takes about 10-14 days when the results are available to your doctor.

Some specialist centres may offer a rapid result in 24 hours (called a FISH test). This is an interim report and is at an additional cost to the patient, for which there is no rebate.

## Useful websites for consumers about Amniocentesis

- Better Health Channel: fact sheet on Amniocentesis:  
[http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/\(Pages\)/Amniocentesis?OpenDocument](http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/(Pages)/Amniocentesis?OpenDocument)

### Please note:

This information is of a general nature only and is not intended as a substitute for medical advice. It is designed to support, not replace, the relationship that exists between a patient and his/her doctor. It is recommended that any specific questions regarding your procedure be discussed with your family doctor or medical specialist

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