

Amniocentesis

Amniocentesis is a prenatal procedure that your doctor may recommend you have during pregnancy. The test checks for fetal abnormalities (birth defects) such as Down syndrome, cystic fibrosis or spina bifida. In most cases, the results are normal.

Amniocentesis is performed between 16 and 20 weeks into the pregnancy. By around this time, the developing baby is suspended in about 130ml of amniotic fluid, which the baby constantly swallows and excretes. A thin needle is used to withdraw a small amount of this fluid from the sac surrounding the fetus.

The fluid is examined to obtain information about the baby – including its sex – and to detect physical abnormalities such as Down syndrome or spina bifida. Amniotic fluid samples can also be DNA tested to identify a range of genetic disorders, such as cystic fibrosis and fragile X syndrome.

Amniocentesis is only performed on women thought to be at higher risk of delivering a child with a birth defect. Discuss with your doctor or obstetrician whether amniocentesis is right for you.

Problems detected by amniocentesis

Amniocentesis can detect a number of chromosomal and other birth abnormalities in a developing fetus. These include:

- Down syndrome
- Neural tube defects, such as spina bifida
- Genetic disorders – amniotic fluid samples can be DNA tested to identify a range of genetic disorders, such as cystic fibrosis and fragile X syndrome.

Women who may benefit from amniocentesis

As a woman grows older, the risk of having a child with Down syndrome begins to increase significantly – from about one in 2,000 (at age 20 years) to one in 100 (at 40 years).

Pregnant women who may be candidates for amniocentesis include:

- Women over the age of 40 years (Victorian women aged 37 years and over are routinely offered this test)
- Women with a family history of chromosomal abnormalities, such as Down syndrome
- Women who have already had children with chromosomal abnormalities
- Women known to be carriers of genetic disorders
- Women with partners who have a family history of a genetic disorder or chromosomal abnormality
- Women who return an abnormal 'serum screen' blood test or ultrasound examination result.

The amniocentesis procedure

Before having amniocentesis, it is usual for the woman and her partner to be counselled on the risks of the procedure. The entire procedure takes about 90 minutes.

Steps involved in amniocentesis:

- The woman lies down and the position of the fetus and the placenta are determined by an ultrasound scan.
- When the doctor is sure of a safe spot, they swab the woman's belly with antiseptic and inject a local anaesthetic into the skin.
- Using a long, thin needle, the doctor extracts about 15 to 20ml (approximately three teaspoons) of amniotic fluid. This takes about 30 seconds.
- The fetus is checked afterwards to make sure all is well.

The doctor will advise when the results are expected. In some cases, the results may take up to three weeks.

Immediately after amniocentesis

You may need to wait in the surgery for around 20 minutes before leaving for home. Most women find amniocentesis to be painless, although it is recommended to continue resting for an hour or so afterwards.

Side effects of the procedure may include:
Mild discomfort
Slight bruising at the injection site.

Complications of amniocentesis

While amniocentesis is generally considered a safe procedure, possible complications may include:

- **Infection** – symptoms include fever. Contact your doctor immediately.
- **Vaginal leakage** – amniotic fluid may leak from the vagina (in about one per cent of cases). Contact your doctor for reassurance. In most cases, the leakage slows and stops within two days.
- **Spontaneous abortion** – can occur in less than one per cent of women undergoing this test. Exact figures are hard to calculate, since some miscarriages would have happened anyway, with or without the amniocentesis.
- **Rh sensitisation** – rarely, the baby's blood cells may enter the mother's bloodstream. If the mother is Rh negative, she may form antibodies that attack the baby's red blood cells. To prevent this, an Rh negative mother will be given Rh(D) immunoglobulin (anti-D).
- **Injury to the baby** – very rarely, the needle used during the procedure may accidentally touch some part of the baby's body.

Taking care of yourself at home

Most women feel fine after the procedure and no alteration to normal routine is necessary. However, it is generally advised that you take it easy for the next couple of days.

Long-term outlook

Amniocentesis rarely causes harm to either the mother or her baby in the long term. Complications following amniocentesis are very rare. However, if you experience unusual symptoms, such as bleeding from your vagina, seek medical attention promptly.

Where to get help

- Your doctor
- Obstetrician
- Gynaecologist

Things to remember

- Amniocentesis is a prenatal procedure performed on a pregnant woman to withdraw a small amount of amniotic fluid from the sac surrounding the fetus.
- The goal of amniocentesis is to examine a small amount of this fluid to obtain information about the baby, including its sex, and to detect physical abnormalities such as Down syndrome or spina bifida.

- Amniocentesis is only performed on women thought to be at higher risk of delivering a child with a birth defect.

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