



Amniocentesis

Your family / personal medical history or perhaps an ultrasound result may suggest to your doctor that you have a slightly greater chance of giving birth to an infant with a birth defect. Therefore your doctor may suggest that you undergo an amniocentesis, a test used to detect some foetal abnormalities.

What is an amniocentesis?

An amniocentesis is a test in which a small sample of liquor (water) is taken from around the developing baby. A needle is passed through the abdomen, the wall of the uterus (womb) and into the water (liquor) surrounding the baby without touching the baby or the placenta. Approximately 15mls of fluid is taken, this amount being small compared with the total amount of fluid present (at least 150mls) at the time of the test at 16 weeks.

Who is offered an amniocentesis?

- Women of 37 years and over at the projected time of delivery.
- Women who have already had a child with a problem such as Down's Syndrome or Spina Bifida.

Occasionally amniocentesis is done for other reasons. These include parents who are known to have a chromosomal abnormality or who are known to be at risk of having a baby with one of a number of rare abnormalities of their metabolism.

Why are women over the age of 37 offered amniocentesis?

As the age of the mother increases the chances of her having a baby with a chromosomal abnormality also increases. The most common chromosome abnormality is Down's Syndrome. Between 37 and 40 years of age the chance of having a baby with an abnormality is approximately 1 in 100. Beyond the age of 40 years this chance increases even further. The incidence of Spina Bifida does not seem to be correlated with age.

When is amniocentesis performed?

Amniocentesis is usually performed from 14 weeks gestation.

Are there risks involved?

The risk of miscarriage following this test is approximately 1 in 200 tests performed.

What will happen on the day of the test?

It is important that the mother's bladder is full; this lifts the uterus up out of the pelvis making it easier to see the baby with ultrasound. The ultrasound scan is performed prior to the amniocentesis so that the pregnancy and the placenta can be checked and to determine whether there is a singleton or twin pregnancy. The ultrasound scan is quite painless and merely involves spreading a little warm gel over the lower abdomen and then moving an ultrasound probe gently over the skin surface.

After the ultrasound scan has been performed, the abdomen is cleaned and the needle is inserted into the uterus. The needle is watched all the time on the ultrasound screen. It then only takes about one minute to draw up 15-20mls of fluid into a syringe. After removing the needle and again checking the baby, the mother is able to get dressed and go home.

Almost without exception, patients experience far less discomfort from the test than they had expected. Any discomfort felt is usually similar to that felt for a simple blood test. It is recommended that for the rest of the day things are taken quietly, but after this to return to a usual routine.

What should be looked for after the test?

It is very rare to have any problems at all after the test. Occasionally there may be some mild discomfort due to a little bruising under the skin. If there is any loss of blood or water from the vagina or any pain after the amniocentesis you should consult your obstetrician.

What tests are performed on the fluid taken?

An estimate of the amount of a particular protein (alpha fetoprotein). There are usually large amounts of this protein present in the fluid if a baby has a defect called Spina Bifida.

The second test is carried out on the cells which are present in the fluid. The chromosomes of these can be examined and in this way it is possible to detect whether the baby has Down's Syndrome or any other less common chromosome problems. The sex of the baby is also determined.

How long will the results take?

The results of the Spina Bifida test are usually available after one week. Your doctor would not normally inform you of this result unless there was a problem. However the ultrasound examination would detect babies with Spina Bifida.

The chromosome test for Down's Syndrome takes from 10 to 21 days because the cells are required to grow in a laboratory for a period of days. The laboratory will send the results directly to your doctor. It will be the doctor looking after you and your pregnancy who will tell you the results of the amniocentesis.

Finally, it is important to realise that while a combination of amniocentesis (with a 99.9% accuracy) and a thorough 18-20 week ultrasound goes a long way to ensuring the baby is normal, it does not guarantee that every possible abnormality has been excluded.

Your Stories

Linda says:

I was offered an amnio at age 29 due to having antibodies similar to rhesus factor although mine are anti-I and anti-c, both attack the unborn baby in the same way as the rhesus does. My husband was positive for both the antigens and so we were offered the amnio to check the DNA make up of our son so they could determine his blood typing.

It was the hardest decision of my life, we had tried for this baby and I was so very scared of losing him to either the amnio or the antibodies. Trying to stop myself shaking from crying so hard was difficult. We decided to go ahead and have the test as if it showed our son to be negative it would mean a stress free pregnancy compared to a highly stressed and highly invasive pregnancy.

The procedure itself hurt quite a bit for me, but the emotional pain was worse. As it turned out, our son ended up being positive for both antigens so I ended up back at the same hospital every 3 weeks for the remainder of my pregnancy to monitor him through special ultrasound.

I would do it again if necessary, just so I knew what to expect from the pregnancy. That may seem selfish, but an antibody (or ISO) pregnancy is extremely stressful and to avoid that stress would be worth it.

Jennifer says:

“I had an amnio during my first pregnancy. Our baby was in the high risk of having Downs Syndrome. An amnio was offered or we could have just continued on and found out at birth. We had to know. The test was the scariest thing I’ve gone through. It was relatively painless but very uncomfortable (physically), but emotionally, it was very painful for both of us. We had a long wait for a normal result. We look back now and regret making the decision to have the test. We look at our daughter and realise the risk we took. I guess we were naive as it was our first baby.”

Cathy says:

“We were booked for an amnio for our first child. However, the ultrasound before the procedure found that our child’s heart had stopped beating. I was almost 15 weeks at that point and had to wait another week before a scheduled D&C. Before finding this problem, we had both decided to terminate if there was a problem. But since going through our first experience we are both unsure if we would terminate if given the choice (loosing a child is traumatic enough when the choice is taken from you, let alone making the choice yourself). In saying that, we again decided to have an amnio for our second child . I couldn’t go through the pregnancy not knowing. Neither of us knew what we would do if a problem was discovered. Thankfully we didn’t have to do anything

(perfect 2 year old girl!). Tonight we are scheduled for an amnio for our third pregnancy (I am 14 weeks today). Again, we have no idea what we will do with a negative result. But I need to know what I am facing (good or bad).”

The information in this section (excluding personal stories) was provided by Monash IVF. You can visit their website for more information at <http://www.monashivf.edu.au>

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