

Fetal blood group testing

For pregnant people with a RhD negative blood type



the women's
the royal women's hospital

This fact sheet is for people with a RhD negative blood type who are pregnant with a single baby. It explains the risks of having this blood type in pregnancy. It also explains how fetal blood group testing can be helpful when deciding how to manage the risks.

What is the RhD blood type?

RhD is the name given to a protein found on the red blood cells in some people's blood.

On average, for every 100 people:

- 83 will have the RhD protein - their blood type is called *RhD positive*
- 17 will not have the RhD protein - their blood type is called *RhD negative*.

Why is RhD important in pregnancy?

There is a chance that - even if you are RhD negative - your baby will be RhD positive. We call this a blood type mismatch.

During pregnancy or birth, blood cells from your baby can enter your blood stream. If there is a blood type mismatch, your immune system may produce antibodies against your baby's red blood cells.

This is not normally a problem in this pregnancy. However, if a baby is RhD positive in a future pregnancy, your immune system can attack the baby's red blood cells and make them sick.

This disease is called haemolytic disease of the fetus and newborn (HDFN). It can cause severe anaemia (a lack of red blood cells to carry oxygen), brain damage, or even death.

What can you do to prevent HDFN?

All pregnant people will have their blood type tested early in pregnancy. If the results show that you are RhD negative, you will be offered injections of a product known as RhD immunoglobulin, or 'anti-D'.

Anti-D reduces your chance of developing antibodies against your baby's blood cells (if they are RhD positive).

Anti-D is made from plasma collected from human blood donors. It is treated so that it is safe for both you and your baby.

It is important to know that around 1 in 500 people (0.2% cases) will still develop RhD antibodies even if they get anti-D injections during pregnancy and after birth.

What is fetal blood group testing?

Until recently, we could only find out a baby's blood type at birth by taking blood from the umbilical cord.

Now we can predict your baby's blood group while you are still pregnant. This is known as fetal blood group testing.

To do this, we take a sample of your blood and look for small bits of your baby's DNA found in your bloodstream during pregnancy.

The test is called the *RHD* non-invasive prenatal test (*RHD* NIPT). This is different from the NIPTs used to predict chromosome conditions (such as Down syndrome).

What do the results mean?

- If the test predicts that your baby is RhD negative, you will not need anti-D injections.
- If the test predicts that your baby is RhD positive, you will be offered anti-D injections.
 - These are given at 28 weeks, 34 weeks and after birth.
 - You may also need extra anti-D injections during pregnancy or after birth if your baby's blood has mixed with your blood.
 - Your midwife or doctor can explain more about when this might happen.

Is the *RHD* NIPT test accurate?

Yes - the test is accurate. However, no test is perfect. For around 1 in 100 people (0.5–1% cases), the test will predict their baby is RhD negative, when this is not true.

Getting this result might mean you decide not to get anti-D injections during pregnancy, when it would have been better to do so.

To help protect you, your baby's blood group will still be checked after birth. If your baby is RhD positive, we will offer you anti-D injections then. For those who get anti-D after birth, around 1 in 100 people (0.8–1.5% cases) will develop RhD antibodies.

You can still choose to have anti-D injections even if the test predicts that your baby is RhD negative. You can talk with your midwife or doctor more about this.

Do you have to do the test?

No - you do not have to do the test. Your care team will help you understand the possible benefits and harms of each option.

If you decide not to do the test, we will offer you anti-D injections. This is because we won't know your baby's blood type until after they are born and they might have the RhD positive blood type.

Disclaimer: This fact sheet provides general information only. For specific advice about your or your baby's healthcare needs, you should seek advice from your health professional. The Royal Women's Hospital does not accept any responsibility for loss or damage arising from your reliance on this fact sheet instead of seeing a health professional. If you or your baby require urgent medical attention, please contact your nearest emergency department.
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Where can you get the test?

Your GP can arrange the blood test. You can get it done from 15 weeks of pregnancy.

How much does it cost?

Medicare covers the cost of the test. It is only available for pregnant people with the RhD negative blood type.

What should you do with the results?

Please bring a copy of the test results to your next antenatal clinic appointment at the Women's. Your care team will discuss your results and support you to make the right decision for you.

For more information

Pregnancy, Birth & Baby

Rhesus D negative in pregnancy

<https://www.pregnancybirthbaby.org.au/pregnancy/health-conditions-and-complications/rhesus-d-negative-pregnancy>

The Australian and New Zealand Society of Blood Transfusion (ANZSBT)

RHD Non-Invasive Prenatal Testing

<https://rhdnipt.anzsbt.org.au>

Do you need an interpreter?



You can ask for an interpreter if you need one.

Family Violence Support

1800 Respect National Helpline

You can get help if you have experienced sexual assault, domestic or family violence and abuse.

You can call any time of day or night.

1800 737 732

1800respect.org.au