

# Rhesus D Non-Invasive Prenatal Testing (RHD NIPT)



## What is the Rhesus D NIPT (RHD NIPT)?

The RHD NIPT is a screening test that looks at your baby's DNA that is found in your blood. It is specifically recommended for *all* pregnant patients with Rhesus negative blood type to determine if your baby is likely to have Rhesus positive or negative blood type.

If you have Rhesus negative blood type and your baby has Rhesus positive blood type, there is a possibility that your body could produce antibodies that cause harm to your current pregnancy and future ones.

This can be prevented by screening and a medication called Rhesus D Immunoglobulin (RhD Ig), also known as anti-D. However, if both you and your baby are Rhesus negative, anti-D is not needed.

The RHD NIPT can be requested by your doctor and the test result can be used to decide if you need the anti-D medication.

If you are Medicare-eligible, there is no out-of-pocket cost to you if this test is requested by a registered medical practitioner (doctor).

## Keep in Mind

- The RHD NIPT is not needed if you have Rhesus positive blood type.
- This is a separate test to the non-invasive prenatal testing (NIPT) that is used to screen for chromosomal abnormalities or other genetic conditions. The two tests are done for different reasons and your doctor may recommend one or both tests (if eligible). They are offered at different times during your pregnancy and each test provides different information.

## Why is this testing important for Rhesus negative pregnant patients and their babies?

If you are RhD negative - and only if your baby is RhD positive - your body may make antibodies against your baby's blood Rhesus D group. These antibodies do not usually cause harm in your first pregnancy. However, if your next baby is also RhD positive, these antibodies may damage the baby's blood cells and cause a severe disease called haemolytic disease of the fetus and newborn (HDFN).

To prevent your body from making antibodies if you carry an RhD positive fetus, you would need the anti-D medication.

## What is Rhesus D Immunoglobulin (anti-D)?

RhD Ig or anti-D is made from plasma collected from human blood donors and is given by an intramuscular injection into your arm. Your doctor will decide if you need anti-D injections and provide guidance on how you can receive treatment.

RhD Ig is required only for RhD negative pregnant patients either carrying an RhD positive fetus or a fetus with unknown RhD blood group status.

## How do I get the RHD NIPT test done at PathWest?

The RHD NIPT must be requested by your doctor and involves blood testing between 20 and 32 weeks of pregnancy using a special tube at a PathWest collection centre.

Your doctor will need to complete the specific request form with information including your expected delivery date, number of foetuses and body mass index (BMI).

Results usually take two weeks. Make an appointment with your doctor to discuss the results.

## Why does the test have to be carried out between 20 and 32 weeks gestation?

PathWest has validated the test to be most accurate during this period of gestation.

If you have the test too early (before 20 weeks), there may not be enough of your baby's DNA in your blood. If you have the test too late (after 32 weeks), the results may not be available in time to inform anti-D treatment.

## What if I choose not to have the test or miss the 20-to-32 week test window?

In these situations, you will be treated as though your baby is RhD positive, and it will be recommended that you receive the anti-D injection. This is the safest choice to ensure the well-being of your baby.

## How accurate is the test?

This test is more than 99 percent accurate when done between 20 and 32 weeks at PathWest.

## What are the possible results of the RHD NIPT test?

*What happens if my baby is RhD negative?*

If the test predicts that your baby is RhD negative, there is no risk of a Rhesus D reaction to the baby, and you will not need anti-D injections. This prevents you from having any unnecessary injections.

*What happens if my baby is RhD positive?*

If the test predicts that your baby is RhD positive, you will be recommended to have anti-D injections at 28-30 weeks and 34-36 weeks, or if you have any bleeding during your pregnancy.

*What if my RHD NIPT test is inconclusive?*

There can be various reasons for an inconclusive test including the amount of baby's DNA being too low ("low fetal fraction"), high BMI during pregnancy, and technical issues usually associated with rare RHD genotypes.

In the case of an inconclusive result, you will be treated as though your baby is RhD positive, and it will be recommended that you receive the anti-D injection. This is the safest choice to ensure the well-being of your baby. Repeat testing is not recommended.

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*This information leaflet does not replace the guidance provided by your treating clinician(s). Your clinician(s) should advise you of the treatment options and advise of any associated risks. Your clinician should also ensure that you are aware of the material risks of injury associated with this treatment. If you are unsure about any aspects of your treatment/care, ask your clinician(s) to explain.*



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### CONDITIONS SCREENED

Fetal Rhesus blood genotype testing



### WHEN TO TEST

Recommended in pregnant patients who are Rhesus negative and do not have anti-D antibodies. Testing can be performed at 20 – 32 weeks gestation. Referrals for testing before 20 weeks or after 32 weeks gestation are not accepted



### TURNAROUND TIME

2 weeks



### COST

Medicare-funded test (Medicare Item Item 73420). No out-of-pocket costs if Medicare-eligible and ordered by a registered medical practitioner (doctor). If ordered by a midwife or nurse, the patient will be billed for the test.



### ARRANGING

Can be ordered by registered medical practitioners (doctors). This requires a separate request form available from our [website](#).

Please provide the following information:

- Clearly state patient is Rhesus D negative
- Expected date of delivery (requests are not accepted before 20 weeks and after 32 weeks gestation)
- Singleton or multiple pregnancy (number of fetuses)
- Body mass index (BMI).



### COLLECTION

Blood sample collection at a PathWest collection centre.



### TESTING

Only performed in Rhesus D negative pregnant women with no known anti-D antibodies. This screening test (RHD NIPT) is different to the non-invasive prenatal testing (NIPT) that is used to screen for chromosomal abnormalities or other genetic conditions.



### RESULTS

Results are delivered to the requesting medical practitioner and MyHealthRecord unless otherwise indicated.

### Further information

[Australia and New Zealand Society of Blood Transfusion](#)  
[National Blood Authority](#)