

FETAL RHESUS FACTOR DETERMINATION

Determine your baby's Rhesus factor before birth and avoid unnecessary anti-D prophylaxis

MEDICOVER GENETICS

WHAT IS **RHESUS FACTOR**?

The Rhesus (Rh) factor is a protein found on the surface of red blood cells. People who have this protein are considered Rh positive (RhD positive), while those who do not have it are Rh negative (RhD negative). Your Rh status is inherited from your parents.

While the Rh factor does not usually affect a person's health, when pregnant it's important to understand how your blood type and your baby's blood type can interact. If you are RhD negative and your baby is RhD positive, there is a chance that your immune system could recognize your baby's blood as foreign and produce antibodies against it. This is known as RhD sensitization, and it can have serious health implications for your baby.

IMPORTANCE OF GETTING TESTED

The mixing of fetal and maternal blood can happen naturally during pregnancy or birth, especially if there are small injuries to the placenta or umbilical cord. It can also occur during medical procedures such as amniocentesis. However, not all RhD negative women will require medical intervention. In fact, about 35-40% of RhD negative pregnant women carry RhD negative babies, meaning that no additional treatment, such as anti-D prophylaxis, is necessary.

The Fetal Rhesus Factor Determination test helps ensure that you and your baby receive the best possible care throughout your pregnancy.

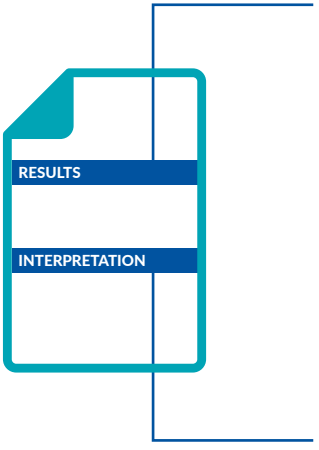
WHO COULD **BENEFIT** FROM THIS TEST?

- You are RhD negative and unsure if you need anti-D treatment. This test can determine whether your baby is RhD positive and if you need anti-D prophylaxis to help prevent complications.
- You are RhD negative and have been told you have anti-D antibodies. If you have already developed anti-D antibodies (RhD sensitization), this test helps your doctor monitor your pregnancy and manage any potential risks to your baby.

WHEN IS THE TEST PERFORMED?

The Fetal Rhesus Factor Determination test is recommended starting from the 19th week of pregnancy. Although the test can be performed as early as the 12th week of pregnancy, a RhD negative result must be confirmed by a repeat test after the 17th week of pregnancy.

WHAT ARE THE POSSIBLE **OUTCOMES** OF THE TEST?



POSITIVE RESULT

RHD sequences detected and the fetus is RhD positive. A positive result (positive RHD genotype) is to be considered definitive. Anti-D prophylaxis should be administered in the 28th-30th week of pregnancy.

NEGATIVE RESULT

No RHD sequences detected. The fetus is RhD negative or the amount of fetal DNA was too low. A negative result before the 19th week of pregnancy is provisional and must be confirmed at least two weeks later, but only after the 17th week of pregnancy. If the fetus is RhD negative, anti-D prophylaxis is not needed.

Regardless of the result of the Fetal Rhesus Factor Determination test, the RhD trait is determined immediately after birth from umbilical cord blood for every baby born to a RhD negative mother in order to exclude rare false-negative results. If the baby is RhD positive, the RhD negative mother will be given a standard dose of anti-D immunoglobulin (300µg) within 72 hours of birth.

HOW DOES THE TEST WORK?

Fragments of fetal genetic material, which originate from the placenta, circulate in the maternal blood (cell-free DNA) during pregnancy. Using molecular biology methods (real-time PCR), these fragments are analyzed for the presence of the Rhesus D gene. If this is detected, the unborn child is RhD positive. Only one blood sample from the pregnant woman is required for the test. This prenatal test has no discernible disadvantages for either the pregnant woman or the unborn child. The test has a high sensitivity (>99%) and specificity (>98%).

OUR REPRODUCTIVE PORTOFLIO

Our reproductive health portfolio covers every aspect of the reproductive journey and includes diagnostic and predictive testing, and encompasses many technologies to achieve optimal performance and efficiency.

PRECONCEPTION

Carrier Screening
Infertility Testing
Preimplantation Genetic Testing
Oocyte and Sperm Donor-Recipient Matching Program
Endometrial Microbiome Analysis

PRENATAL

Non-invasive Prenatal Testing
Invasive Prenatal Testing

NEONATAL & POSTNATAL

Chromosomal Analyses
Gene Panel Sequencing
Whole Exome Sequencing
Newborn Testing

BENEFITS OF FETAL RHESUS FACTOR DETERMINATION TEST

EFFICIENT
Reduces unnecessary RhD prophylaxis injections

SAFE
Lowers risk of allergic reactions to injections

COMFORT
Minimizes stress for pregnant women and new mothers

FREQUENTLY ASKED **QUESTIONS**

1 DO I NEED TO DO ANYTHING TO PREPARE FOR THE TEST?
No special preparation is needed. The test only requires a simple blood draw.

2 IS THE TEST PAINFUL OR RISKY?
The test is a routine blood draw, which is minimally invasive and carries little to no risk.

3 WHAT HAPPENS IF MY BABY IS RHD NEGATIVE?
If your baby is RhD negative, no further action is needed, and you do not require anti-D prophylaxis.

4 WHAT HAPPENS IF MY BABY IS RHD POSITIVE?
If your baby is RhD positive, your doctor may recommend an anti-D injection to prevent your immune system from developing antibodies that could affect your current or future pregnancies.

5 HOW LONG DOES IT TAKE TO GET MY RESULTS?
Results are typically available within 4 to 6 working days after the sample reaches our laboratory.

6 ARE THERE ANY LIMITATIONS TO THE TEST?
This test is only available for single-fetus pregnancies. In about 1% of cases, the result may be unclear, and anti-D prophylaxis is recommended as a precaution. Additionally, in 0.2–0.3% of cases, rare genetic variants may cause a false-positive RhD result, meaning the fetus is actually RhD negative. However, in these cases, anti-D prophylaxis is still recommended to ensure safety.

7 WHY CHOOSE MEDICOVER GENETICS LAB?
We use state-of-the-art technology and strict quality controls to provide fast, accurate, and reliable results. Our laboratory is certified in Germany, ensuring the highest standards.

HOW TO **ORDER**

Visit a physician
to order the test

Arrange sample
collection at your nearest
blood drawing point

The sample is sent to
Medicover Genetics

Sequencing is performed
in our accredited
laboratory in Germany

Discuss the medical report
with your physician

CONTACT US

If you have additional questions or concerns, please contact us at **info.genetics@medicover.com**

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