

WHAT ARE THE LIMITATIONS OF THE TEST?

The test is only possible for **single fetus pregnancies**. In approximately 1% of cases, the result is not clear and anti-D prophylaxis is recommended. Furthermore, in 0.2-0.3% of cases, rare genetic variants can lead to a positive RhD result even though the fetus is actually RhD negative. In this case, anti-D prophylaxis would still be recommended.

WHY US

- A network of laboratories and medical institutions makes us a **leader in genetic testing** in Germany with foundations dating back to 1998
- A clinical team comprised of scientists, physicians and medical geneticists, several with **>20 years of experience** in genetic testing, assuring meaningful and comprehensive genetic tests
- **Up-to-date diagnostic algorithms**
- Expertise in gene variant analysis ensuring **“no variant left behind”**
- Cutting-edge technology in sequencing and laboratory methods allows for **short turnaround times**
- **Quality** assessed by several certifying bodies, including EFI, DIN EN ISO 15189 accreditation for medical laboratories, DIN EN ISO/IEC 17025 accreditation for testing and calibration laboratories and a generally valid GMP (Good Medical Practice) certificate
- **Data privacy** is your right and our priority

CONTACT

Address:

xxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxx
xxxxxxxxxxxxxxxxxxxxxxxx

Tel: xxxxxxxxxxxxxxxxxxxx

E-mail: xxxxxxxxxxxxxxxxxxx

Website: xxxxxxxxxxxxxxx

FETAL RHESUS FACTOR DETERMINATION

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

INFORMATION FOR PREGNANT WOMEN



Your logo goes here

WHAT IS RHESUS FACTOR?

The Rhesus factor is a blood group characteristic. This trait **shows whether blood from two people is compatible when mixed**, for example, blood from mother and child during birth. Most people possess the Rhesus factor (or antigen D) and are “RhD positive”. Every 6th to 7th person (14-17%) is “RhD negative”.

WHY HAVE A FETAL RHESUS FACTOR DETERMINATION TEST?

There is a risk of RhD sensitization for a RhD negative woman pregnant with a RhD positive child. When this happens the **pregnant RhD negative woman forms antibodies that can enter the bloodstream of the RhD positive child**. This can have serious consequences for the fetus.

Fetal and maternal blood can mix during birth, for example, due to small injuries to the placenta or the umbilical cord. Mixing can also occur during pregnancy, either without any external influence or through interventions such as amniocentesis. Approximately 35-40% of RhD negative pregnant women do not need anti-D prophylaxis because the child is also RhD negative.

WHO SHOULD HAVE THE TEST?



RhD negative pregnant women who want to know whether they require anti-D prophylaxis (with a RhD positive fetus)



RhD negative pregnant women with evidence of anti-D antibodies (RhD sensitization)

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%).

WHEN IS THE TEST PERFORMED?

Fetal rhesus testing is **recommended from the 19th week of pregnancy**. The test can be performed from the 12th week of pregnancy at the earliest. However, a RhD negative result must be confirmed by a repeat test following the 17th week of pregnancy.

RESULT OF THE TEST



Positive result: The fetus is RhD positive and anti-D prophylaxis is recommended.



Negative result: Anti-D prophylaxis is not necessary if the fetus is RhD negative. (Note that a negative result before the 19th week of pregnancy should be considered preliminary).

Regardless of the result of the fetal Rhesus factor determination test, umbilical cord blood is used immediately after birth to determine the Rhesus factor for every baby born to a RhD negative mother.