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Rijksinstituut voor Volksgezondheid
en Milieu
*Ministerie van Volksgezondheid,
Welzijn en Sport*

Blood group antibodies *and pregnancy*

If further investigation is required

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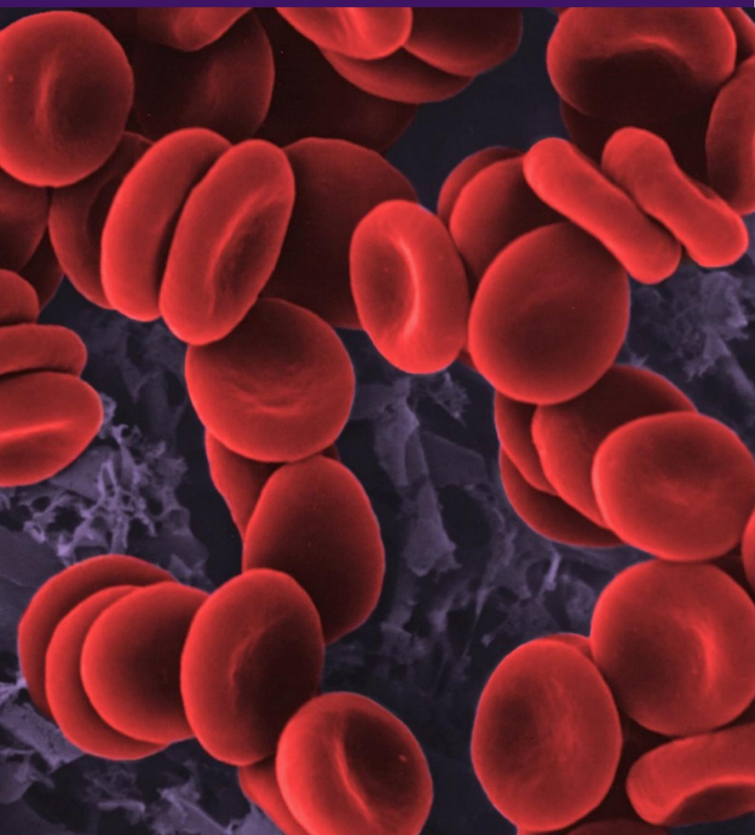
Research into blood group antibodies

In this brochure we provide you with information about blood group antibodies and what they mean when you are pregnant. Blood group antibodies can break down the unborn child's blood. The child may then develop anemia. It's important to carefully monitor for this and intervene promptly if necessary.
That is why all pregnant women are offered a test around the 12th week to see if they have blood group antibodies.

If you have any questions after reading this, please do not hesitate to ask the person who is monitoring your pregnancy.



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Our blood

To clarify what blood group antibodies are, we first explain what blood groups are.

What are blood types?

To the naked eye, blood appears as a thick red fluid. This fluid contains billions of cells, such as red blood cells, white blood cells, and platelets.
Red blood cells contain substances (proteins) that determine a person's blood type. The most common blood types are those of the ABO system and the Rhesus D factor. There are also over 200 other blood types.

What are blood group antibodies?

Our bodies can produce antibodies against blood types we don't have ourselves. These are called blood group antibodies, or simply antibodies.

When does someone produce blood group antibodies?

This can happen when someone comes into contact with blood from a person with a different blood type, for example, through a blood transfusion or pregnancy. Sometimes, a small amount of the baby's blood passes to the mother during pregnancy or childbirth. If the baby has a different blood type than the mother, the mother can develop antibodies against the baby's blood.

Are blood group antibodies harmful?

The mother herself is not affected by the antibodies.
But sometimes these antibodies cause problems during pregnancy. The mother's antibodies can break down the baby's blood, causing anemia. Sometimes this happens before birth, and sometimes only afterward.

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Blood test

All pregnant women are offered a test around their 12th week to determine if they have blood group antibodies. You are receiving this brochure because you have a positive result on the blood group antibody test.

What does a 'positive' result mean?

A positive blood test result means you likely have blood group antibodies in your blood. It's important to investigate this thoroughly.

The Sanquin laboratories in Amsterdam and the BIBO in Groningen specialize in this test. The blood will be sent to one of these two laboratories for further analysis. Sometimes, additional blood samples are required for this test.

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Further investigation by a specialized laboratory

The research by the specialized laboratory provides answers to the following questions:

Are there indeed blood group antibodies present?

In approximately 1 in 5 women with a 'positive' result, follow-up testing shows that there are no antibodies after all.

Which blood group antibodies are involved?

There are many different antibodies. It's important to know which ones you're referring to. In about half of pregnant women, these antibodies cannot cross the placenta. These antibodies don't pass through the baby and are harmless during pregnancy. Additional tests aren't necessary.

How strong are the blood group antibodies?

Some antibodies are stronger and better able to break down the child's blood than others. To determine whether the child needs treatment, it's important to know how strong the antibodies are.

What is the child's blood type?

The mother's antibodies can only break down the child's blood if they are directed against the child's blood type. To determine the child's blood type, it may be necessary to also determine the father's blood type.

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The results of the specialized laboratory

Several outcomes are possible.

Result: no blood group antibodies

The mother doesn't have antibodies that would break down the baby's blood. The midwife or GP can then continue to monitor the pregnancy. Additional checkups are not necessary.

Result: blood group antibodies found

The mother has antibodies that can break down the child's blood. It is therefore important to repeat the blood test regularly.
The laboratory will test the activity of the antibodies in the mother's blood and the likelihood of them breaking down the baby's blood. If the results remain positive, the midwife or GP can continue to monitor the pregnancy.

Sometimes additional checks are necessary and the gynaecologist takes over the care.

If additional checks are required

The gynecologist will regularly monitor the child for anemia and its severity. This can be done by repeating the mother's blood tests and performing an ultrasound examination of the baby.

If the checks do not reveal any serious abnormalities, the delivery can take place around the due date.

If there are indications that the baby is developing severe anemia, it may be necessary to induce labor early or perform a cesarean section. In rare cases, treatment is necessary before birth.

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In summary

If blood group antibodies are found:

· Your blood will be sent to a specialized laboratory: Sanquin or BIBO.

The specialized laboratory will examine the blood again to see if it contains antibodies.

· If the specialized laboratory also If antibodies are found, it is important to know:

- which antibodies are involved;
- whether the antibodies can cross the placenta

to pass; to pass

- how strong the antibodies are.

If the test shows that the antibodies could be harmful to the child, a blood test on the father is necessary. If the father has the blood type that the mother's antibodies target, there is a chance that the child will also have that blood type. Testing the father will determine the likelihood of the child also having this blood type.

The results of these tests will determine whether you can continue to see your midwife/GP for pregnancy care. Sometimes a pregnant woman is referred to a gynecologist.

If you're unsure whether your partner is the father of the child, it's wise to tell your gynecologist or midwife. Would you prefer to do this when your partner isn't present? Then call the person overseeing your pregnancy outside of office hours to share this information.

This person will treat the information confidentially and will certainly not tell your partner.

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Registration of data

It's important that a doctor or midwife knows you have blood group antibodies. Therefore, you will receive a transfusion card. Your information will also be entered into a national information system managed by the Sanquin Blood Supply Foundation.

If you need blood in the future, the blood transfusion laboratory can access your information. The Personal Data Protection Act applies to this registration. Your information will never be shared with third parties without your consent.

More information

Visit **www.rivm.nl/bloedonderzoek-zwangeren** for more information.

You will also find a comic strip there explaining the research: “Pregnancy and antibodies in your blood”.

You can recognize the population surveys by this logo:

bevolkingsonderzoek

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