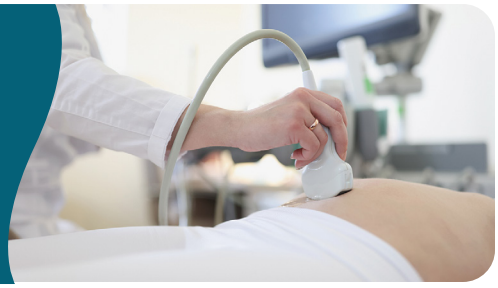
Fetal Blood Group Genotyping for Alloimmunized Pregnancies

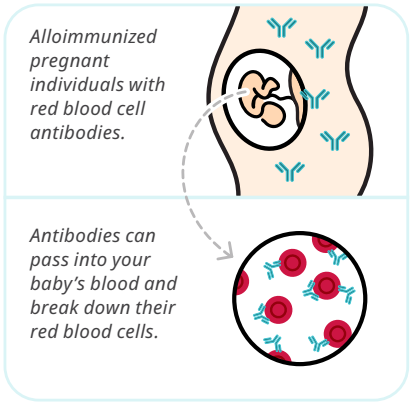
A Guide for Pregnant Women/Individuals with Red Blood Cell Antibodies



Your Antibody Status and Your Baby's Blood Group Are Important in Pregnancy

Your initial prenatal blood work will check for antibodies. If red blood cell antibodies are found, it means you have been exposed to a blood group that is different from your own, most often through a prior pregnancy or a blood transfusion. A health-care provider will check to see if the antibodies are known to cause a condition called hemolytic disease of the fetus and newborn (HDFN). This can help you and a health-care provider make important decisions about your pregnancy care.

*This information is about the **Alloimmunized Fetal Blood Group Genotyping** test. It is for individuals who have **anti-D, anti-C, anti-c, anti-E, and/or anti-K (Kell) antibodies.***



Understanding Alloimmunization in Pregnancy

Alloimmunization happens when your body makes antibodies (proteins made by your immune system) against a different blood group. This can happen in pregnancy if your baby's blood group is different than your own or following a blood transfusion.

During pregnancy, these antibodies can pass into your baby's blood through the placenta. If your baby has a blood group that is different from yours, and you have an antibody to that blood group, your antibody can sometimes break down your baby's red blood cells. This condition is called HDFN. It can cause anemia (low red blood cells) in babies. As a result, some babies may need blood transfusions before or after they are born. After delivery, HDFN can also cause mild to severe jaundice (yellowing of the skin and eyes).

Not every pregnancy with alloimmunization will have complications, but a health-care provider will carefully watch for any signs and treat you if needed.

Finding Out Your Baby's Blood Group During Pregnancy

Alloimmunized Fetal Blood Group Genotyping (or Allo-FBGG) is a blood test done in pregnancy that can check if your baby has certain markers on their red blood cells, called antigens, that your antibody can react to.

Benefits of Knowing Your Baby's Blood Group

Knowing your baby's blood group in pregnancy helps you and a health-care provider make important decisions about your care including:

- **Monitoring your baby's health:** If the test shows your baby is at risk of HDFN, a health-care provider can monitor for signs and complications and refer you to a specialist if needed.
- **Reducing the need for other tests:** If the test shows no risk of HDFN, you can avoid extra monitoring like blood work, ultrasounds, or specialist appointments.

This test is done using a blood sample from you. Tiny pieces of your baby's DNA can be found in your blood to determine if your baby has the antigen.

Allo-FBGG testing is **very reliable and safe** for you and your baby.

How to Get This Test

The test can be done after **16 weeks** of pregnancy for **anti-D, C, c, and E** and after **20 weeks for anti-K (Kell).**

1. **Discuss this test with a health-care provider**
   If it's right for you, they will give you a requisition for the test.
2. **Get your blood test**
   Take your requisition to a lab to have your blood drawn.
3. **Wait for your results**
   Results are usually available within 10 business days and are sent directly to a health-care provider.
4. **Discuss your results**
   A health-care provider will let you know your next steps and what pregnancy care is recommended for you.

Who Can Get This Test?

Allo-FBGG testing is publicly funded for all pregnant women/individuals living in Ontario who have one or more of these antibodies:

- anti-D
- anti-C
- anti-c
- anti-E
- anti-K (Kell)

Your Results and What to Do Next

Test Result	What It Means	Next Steps
Antigen-Positive	Your baby has the blood group antigen, and is at risk for HDFN.	A health-care provider will monitor your pregnancy for signs of HDFN. This might include additional blood tests, ultrasounds and seeing a specialist.
Antigen-Negative	Your baby does not have the blood group antigen, and is not at risk for HDFN.	No change to your prenatal care is needed. Continue your regular appointments with a health-care provider.

** If the test was unable to give a result **(inconclusive or no result),** a health-care provider may ask you to repeat the test or treat your pregnancy as if your baby has the antigen.*

At Delivery

When your baby is born, your baby's blood group will be confirmed using a blood sample from the umbilical cord to decide if your baby needs any special monitoring after delivery. The cord blood results may be shared with the testing lab for ongoing quality assurance.

What If I Don't Have This Test?

If you are alloimmunized and do not have this test, a health-care provider will treat your pregnancy as if your baby has the antigen and monitor your pregnancy for signs of HDFN.

Looking for more information?

Visit Prenatal Screening Ontario's website or speak with a genetic counsellor or a screening specialist on our Information Line:

prenatalscreeningontario.ca PSO@BORNOntario.ca

PSO Information Line: 1-833-351-6490 or 613-737-2281

Learn about your prenatal screening options at myscreeningpathway.ca

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