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Understanding Rh Immune Globulin (RhIG) in Pregnancy

Information for RhD Negative Patients

What does it mean to be RhD negative?

- **RhD is a blood type**, like A, B, or O.
- About **15% of people are RhD negative**. This means your red blood cells do not have the RhD protein.
- Being RhD negative does **not affect your health**.

How does being RhD negative affect pregnancy?

- If the baby has RhD from their father, they will be **RhD positive**.
- During pregnancy, the baby's blood can sometimes mix with yours.
- If this happens, your body may make antibodies against RhD.
- If you already had RhD antibodies, from a past pregnancy, transfusion, or other exposure, they can cross the placenta and affect the baby.
- When the antibody binds the baby's blood cells, it can cause jaundice, anemia (low red blood cells), or very rarely, death in utero. This condition is called **Hemolytic Disease of the Fetus and Newborn (HDFN)**.
- Once these antibodies form, they do not go away and can affect future pregnancies.

What can cause RhD antibodies to form?

- Antibodies may form in pregnancy when the baby's blood mixes with yours, such as:
    - Miscarriage or abortion
    - Amniocentesis or chorionic villus sampling (CVS)
    - Abdominal trauma such as being in a car accident, or having a fall
    - Normal mixing of blood that can happen during pregnancy and birth
- There are also causes unrelated to pregnancy such as:
    - Blood transfusion
    - Organ transplant
    - Intravenous (IV) drug use

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How can RhD antibodies be prevented?

- **Over 99% of cases can be prevented** with a product called **Rh Immune Globulin (RhIG)**.
- RhIG has been safely used since 1968.
- RhIG is given as an **injection**.
- You may need RhIG:
    - **At 28 weeks** of pregnancy, unless genetic testing shows the baby is RhD negative.
    - **At delivery**, if the baby is RhD positive.
    - If you experience any of the following:
        - Vaginal bleeding, miscarriage or abortion (at or after 12 weeks gestation)
        - Amniocentesis, chorionic villus sampling (CVS test), ectopic pregnancy or trauma, such as a car accident or fall (at or after 8 weeks gestation)

When do I need RhIG?

- Everyone who is RhD negative will get a routine dose of RhIG **at 28 weeks of pregnancy**, unless genetic testing shows the baby is RhD negative.
- **Delivery**: if your baby is RhD positive.
- **Other times during pregnancy**: after vaginal bleeding, trauma, or procedures such as amniocentesis, chorionic villus sampling, external cephaloversion.

Early pregnancy (before 12 weeks):

- **Before 8 weeks**, RhIG is not needed because there is no significant mixing of fetal and maternal blood.
- **As of 8 weeks:** RhIG is recommended for abdominal trauma, invasive testing such as chorionic villus sampling (CVS) or amniocentesis, ectopic pregnancy, or molar pregnancy.
- **As of 12 weeks:** New research shows RhIG is likely **not needed before 12 weeks** for bleeding, miscarriage, or abortion.
    - The **Society of Obstetricians and Gynaecologists of Canada (SOGC) 2024 guidelines** recommend **not giving RhIG routinely before 12**

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weeks for bleeding, miscarriage or abortion, because the risk of blood mixing is very low.
    - You may still choose to get RhIG **between 8 weeks to 11 weeks, 6 days** for bleeding, miscarriage or abortion**.** Please tell your doctor if this is your decision.
- If your pregnancy dates are not known or uncertain, your doctor may suggest giving RhIG to prevent RhD antibodies.

Are there risks to RhIG?

- RhIG is made from **donated human blood**.
- Donors are tested for viruses such as HIV, hepatitis B and C. The donated blood is also treated and filtered to kill and remove viruses.

What if I do not get RhIG?

- About **13-16% of RhD negative people** will make antibodies without RhIG.
- These antibodies can harm your current and **future pregnancies**.

Is there an alternative to RhIG?

- **No.** At this time there is no alternative.

Please speak with your obstetrical care provider if you have any questions or concerns.