OPEN DOOR MIDWIFERY

Being Rh–Negative in Pregnancy, Rh Sensitization & Rh Immune Globulin

What does it mean to be Rh-negative?

- Rh is part of your blood type, and can be either positive or, negative.
- 15 percent of people are Rh-negative.
- Being Rh-negative does not affect general health, but can be of concern in pregnancy.

How does being Rh-negative affect my pregnancy?

- People who are Rh-negative can make antibodies to the Rh factor if they are exposed to Rh-positive blood. In pregnancy, this can happen if Rh-positive blood from the baby leaks into the mother's bloodstream, usually through the placenta.
- Antibodies are proteins in the blood produced in reaction to a foreign substance.
- If an Rh-negative woman is pregnant with an Rh-positive baby and has made Rh antibodies, these antibodies can cross the placenta and attack the baby's blood which can result in anemia, jaundice, brain damage, and occasionally death of the fetus or newborn. This is called Hemolytic Disease of the Newborn.
- Once formed, these antibodies do not disappear, they will always be in the woman's blood. In each subsequent pregnancy the effect on the fetus can be more severe. It also significantly increases the risk of miscarriage in subsequent pregnancies.

What can make me form antibodies to the Rh factor?

- The following events can cause these antibodies to form: miscarriage, therapeutic abortion, pregnancy, amniocentesis, chorionic villous sampling, trauma, physical violence, transfusion and ECV (the procedure to turn a breech baby).
- If your partner is Rh-positive and you are Rh-negative, you are at risk of having an Rh-positive baby and making antibodies against the Rh factor

What can I do to prevent Rh sensitization?

- Fortunately, in 99.9% of Rh-negative women this problem can be prevented.
- Giving injections of a blood product called Rh Immunoglobulin prevents this complication.
- This product has been in use since 1968 and is given to Rh-negative women at 28 weeks and after the birth, if the baby is found to be Rh-positive.
- This product is also given after a miscarriage, therapeutic abortion, amniocentesis, chorionic villous sampling, ECV and trauma (such as a car accident while pregnant).

What are the risks of the blood product – Rh Immune Globulin?

- Rh Immune Globulin is made by injecting human volunteer donors who are Rh-negative with the positive Rh factor, then drawing their blood once the antibodies have been formed.
- It is a human blood product, which undergoes the following safety steps: donors are tested for viruses (including human immunodeficiency virus (HIV), hepatitis B and hepatitis C), the product is chemically treated to kill viruses and then dead viruses are filtered out.
- Rare instances of Hepatitis C infection due to Rh immunoglobulin have been reported in Europe, but never in North America.
- Injection of Rh Immune Globulin carries the very rare risk of an allergic reaction called anaphylaxis.
- Some brands of Rh Immune Globulin, such as RhoGam found in the United States contain the preservative thimerosol, which is a mercury derivative. Mercury crosses the placental barrier. **The Canadian version, called WinRho, does not contain a mercury preservative.**

How effective is the treatment?

- Rh Immune Globulin *reduces* but does *not eliminate* the possibility of Rh sensitization. The risk of sensitization after the birth of an Rh-positive baby is:
  - 7-17% without treatment
  - 1-2% with postpartum treatment only
  - 0.1 – 0.2% with antenatal (at 28-29 weeks gestation) and postpartum treatment

What would happen if I refused the blood product?

- If your partner or your sperm donor is also Rh negative, you will not have an Rh-positive baby and you do not need to have Rh Immune Globulin.
- Of women with an Rh-positive fetus, 12 percent would develop antibodies to the Rh factor. The risks to the fetus or newborn would increase with each pregnancy.

Is there another non-blood product way to prevent Rh Sensitization?

- Unfortunately, there is no alternative treatment.