

## WHY DO I NEED THIS SHOT?

Your blood type is Rh-negative which puts you at risk for Rh-sensitization during your pregnancy. Pregnant patients often have different blood groups from their babies. This is normal and usually not a problem. However, in some cases, these blood groups differ in an important way, which is the presence or absence of a particular protein on the outside of the red blood cell. If you have this protein, you “Rh-positive”; if you do not have this protein, you are “Rh-negative.”

## WHAT CAUSES RH-SENSITIZATION DURING PREGNANCY?

Sometimes during pregnancy and delivery, a small amount of the baby’s blood can cross the placenta and enter the pregnant person’s blood stream. This can also happen during:

- A miscarriage, abortion, or ectopic pregnancy
- A serious injury to the belly during pregnancy
- A medical test (such as an amniocentesis)

If transfer of blood occurs from an Rh-positive fetus to an Rh-negative pregnant person, the immune system will see the baby’s blood as “foreign” and will produce antibodies that destroy the baby’s blood cells. This is called *Rh-sensitization*. In the first pregnancy, most of these antibodies will remain in the pregnant patient’s circulation and the baby is usually not significantly affected. During subsequent pregnancies, however, a problem may occur if the new baby is Rh-positive and if there is another transfer of blood across the placenta; the immune system has a good memory. The pregnant patient’s body can rapidly produce the same antibodies again and they can re-cross the placenta in large numbers and start to destroy the new baby’s own blood before birth. Babies who have this condition are said to have hemolytic disease of the newborn (HDN).

Rh-sensitization can occur during pregnancy if an Rh-negative patient is pregnant with an Rh-positive baby. In most cases, blood will not mix until delivery. It takes a while to make antibodies that can affect the baby, so during one’s first pregnancy, the baby probably would not be affected. If this person has a future pregnancy with an Rh-positive baby, the antibodies already present could attack the baby’s red blood cells. This can cause the baby to have anemia, jaundice, or more serious problems.

## WHO GETS RH-SENSITIZATION DURING PREGNANCY?

Rh-sensitization during pregnancy can only happen if an Rh-negative patient has an Rh-positive baby.

- If the patient is Rh-negative and the sperm donor is Rh-positive, there is a 50% chance the baby will have Rh-positive blood and Rh-sensitization can occur.
- If both parents have Rh-negative blood, the baby will have Rh-negative blood too. Since the pregnant patient’s blood and the baby’s blood match, sensitization will not occur. Just to be on the safe side, providers will probably treat these patients as though the baby’s blood is Rh-positive regardless of what the sperm donor’s blood type is.

## HOW IS RH-SENSITIZATION PREVENTED?

Rh-sensitization can almost always be prevented. If you have Rh-negative blood but are not Rh-sensitized, your provider will give you one or more shots of Rh-immunoglobulin (such as RhoGAM or WinRho). This prevents Rh-sensitization in about 99% of patients.

You will get a shot of Rh-immunoglobulin:

- If you have bleeding in your pregnancy.
- If you have a test such as an amniocentesis.
- At around week 28 of your pregnancy.
- After delivery, if your newborn is Rh-positive.

## INFORMATION ABOUT RH-IMMUNOGLOBULIN

- It is an injection of antibodies administered when the patient is Rh-negative. It works in the bloodstream to destroy any circulating blood cells from the baby before the patient's immune system has a chance to make its own antibodies. The baby is not affected by this injection.
- It is up to 99.9% effective in preventing HDN when administered correctly.
- The shots only work for a short time; this means you will need to repeat this treatment each time you get pregnant.
- Reactions are rare; discomfort and light swelling at the injection site and a slight fever have been reported in a small number of cases.
- You are asked to remain in the clinic for 15 to 20 minutes after an injection so that you can be observed for any reactions.
- It is a blood-derived product. It is heavily processed and the risk of contracting a disease from the injection is extremely low. To date, there have been no cases of someone contracting HIV or hepatitis C from this injection.
- Because it is a blood product, we must obtain your consent before administering the shot.

Please let us know if you have any questions.