

Rh Factor and Your Pregnancy

What Is Your Blood Type?

The Rh factor is a substance that occurs naturally on the red blood cells of **most** individuals. If you have the Rh factor your blood type is Rh positive (Rh+). If you don't have the Rh factor your blood type is Rh negative (Rh-).

85% of the population are Rh+
15% of the population are Rh-

Why Is It Important to Know My Blood Type?

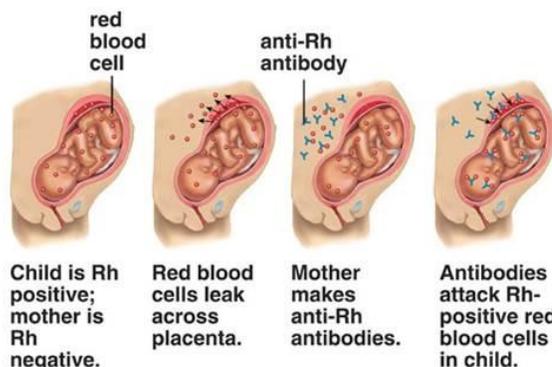
It is important to know your blood type if you require a blood transfusion or if you are pregnant. If you are pregnant and your blood type is Rh-, it is important to know the blood type of the baby's father. The blood type of both the mother and the father will determine the baby's blood type. Certain combinations will place the mother at risk of developing antibodies in her bloodstream. The prevention of these antibodies is essential to protect the unborn baby from developing serious life-threatening complications prior to and after birth.

How Are These Antibodies Produced?

The body normally produces substances (antibodies) to any foreign material that invades the body. During pregnancy and at birth some of the baby's blood cells can enter the mother's bloodstream. If the mother is Rh- and the baby is Rh+, the baby's cells entering the mother's bloodstream are sensed as a foreign material and her body's naturally occurring defense mechanism will start to produce antibodies to destroy this foreign material. Once these antibodies are developed they remain in the bloodstream for life.

Hemolytic disease of the newborn

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If These Antibodies Are Produced, What Happens?

During pregnancy, these antibodies in your bloodstream will enter the bloodstream of your baby and will begin to attack and destroy your baby's blood cells. This causes a serious life-threatening disease called Hemolytic Disease of the Newborn.

What Is Hemolytic Disease of the Newborn?

It is a condition in which the baby's blood cells are being destroyed before birth. It is life-threatening and extensive medical care including exchange blood transfusions may be required. Exchange blood transfusion is a process of removing the baby's blood and replacing it with blood cells which will survive. These exchange transfusions may occur during pregnancy and after birth depending on the condition of the baby. At birth the baby may have jaundice, anemia, central nervous system and brain cell damage. The risk of Hemolytic Disease of the Newborn is slight with the first pregnancy but increases with each pregnancy.

Can Hemolytic Disease of the Newborn Be Prevented?

YES! There is a simple method that can help to prevent this disease from occurring in your baby – **an injection of Rh immune globulin** given to the mother during pregnancy and following birth.

What Is Rh Immune Globulin and How Does It Work?

Rh immune globulin is a specially-prepared substance which will destroy Rh+ blood cells and **prevent antibodies from forming in the mother's blood stream**. It is given close to 28 weeks into the pregnancy and again within 72 hours following the birth of an Rh+ baby to an Rh- mother. In rare situations (1%) the mother is found to be Rh-sensitive (has already developed antibodies) prior to the birth of the baby. It is believed this is because some of the baby's blood has passed into the mother's bloodstream during the pregnancy. This can happen if trauma occurs to the placenta. In this case no Rh immune globulin would be given.

Trauma or Bleeding During Pregnancy

There is also an increased risk of the baby's blood passing into the mother's bloodstream if the mother has a serious fall, a blow to the abdomen, a car accident, an amniocentesis or has obstetrical complications such as placenta previa or has vaginal bleeding. If you experience any of these situations during your pregnancy consult your doctor or midwife immediately. An injection of Rh immune globulin may be necessary.

What Do I Need to Know About Rh Immune Globulin?

Rh immune globulin lasts in your body for only about four months, so it is important to have an injection of Rh immune globulin around 28 weeks in the pregnancy and after each birth, miscarriage or abortion. In some situations you may be given Rh immune globulin early in your pregnancy. Your healthcare provider will discuss this with you as routine injections may be required every 12 weeks until you give birth.

Are There Any Risks from Taking Rh Immune Globulin?

Rh immune globulin is a blood product and has a slight possibility of transmitting diseases such as hepatitis B, hepatitis C and acquired immune deficiency syndrome (HIV/AIDS). Each sample is carefully tested for these diseases and is also heat sterilized and solvent-detergent treated. This process has been shown to be effective in destroying most infectious agents which may be transmitted by blood transfusions or blood products. Each year over 100,000 injections of Rh immune globulin are given in Canada. There has not been a reported case of disease transmission in Canada, caused by this product. There are also the same risks that can occur with any intramuscular injection – there may be slight bleeding, bruising and tenderness at the injection site.

What Is Your Responsibility?

Visit your doctor or midwife early in your pregnancy to find out your blood type. Keep all appointments and have all blood work done and your Rh immune globulin injection given as ordered by your care provider. Keep yourself informed and if you don't understand what is being done or why, ask your doctor or midwife to explain it again. Carry your wallet card with the date of your next injection with you at all times.