



## Rh DISEASE

Not too long ago, many pregnant women with Rh negative (Rh-) blood often had miscarriages, stillbirths, or babies with birth defects.

Since 1968, there has been a vaccine that can help such women have babies free from Rh blood disease. Even so, not all women who need the vaccine get it, and a small number of women cannot benefit from it. As a result, some 7,000 infants are born each year with Rh blood disease.

### What Is Rh Negative Blood?

Rh - blood has no Rh factor. The Rh factor is found on the red blood cells of 85 percent of white people and 95 percent of black people. Those who have the Rh factor are called Rh positive (Rh +). It makes no difference to a person's own health if he or she has the Rh factor or not.

### How Do I Know If I Am Rh Negative?

A simple blood test can tell if you are Rh -. This can be done in a doctor's office, clinic, or hospital. A *woman of childbearing age should be tested before pregnancy*. If she becomes pregnant and doesn't know her Rh blood type, she should be tested during or shortly after pregnancy, whether the pregnancy ends in birth, miscarriage, or abortion.

### How Does The Rh Factor Affect A Baby?

An Rh - mother and an Rh + father may conceive a baby who inherits the father's Rh + blood. Some of the baby's blood may then get into the mother's bloodstream while she's pregnant. Her body

then tries to fight off the Rh + blood cells with natural fighters called "antibodies".

In *first pregnancies*, there is little danger from these antibodies to the unborn Rh + baby, because the mother hasn't made enough of them by the time the pregnancy ends. But in each *later pregnancy* there's a larger chance that these Rh-fighting antibodies may kill some of the unborn baby's red blood cells. That can lead to blood disease, brain damage, or death before birth.

### Is There Any Way To Get Rid Of The Antibodies?

No. Although a woman will stay as healthy as ever, the antibodies become part of her blood supply, and any future Rh + babies may be harmed.

### Is There A Prenatal Test For Rh Disease?

Blood tests done on the Rh - mother's blood during pregnancy will tell if the baby has Rh disease. It may be necessary to perform amniocentesis, a method for taking fluid through a needle from around an unborn baby. The fluid is tested and can show how severely your baby is affected.

### Can Rh Blood Disease Be Treated In The Womb?

In some cases, defects can be lessened or prevented by giving a blood transfusion to the baby before it is born, or right after. Sometimes, medicine is given to a mother to make her have the baby ahead of time (induced delivery) so it can get away from the damaging blood and start getting regular treatment, if needed.

### How Rh Disease develops . . .

Rh positive father  
Rh negative mother



#### During Pregnancy

Rh negative mother with Rh positive baby

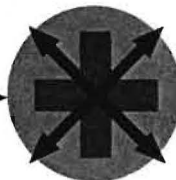


#### At Delivery

Rh positive baby's blood cells enter mother's bloodstream

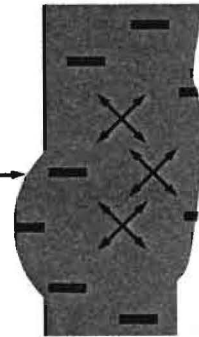


Invading Rh positive blood cells cause the production of Rh antibodies



#### Months Later

Rh antibodies remain in mother's bloodstream



#### Later Pregnancy

The Rh antibodies attack the baby's blood cells, causing Rh disease



### Can Rh Blood Disease Be Prevented?

Yes. It usually can be prevented by giving a vaccine, called Rh immune globulin, to the woman with Rh - blood within 72 hours after the birth of any baby with Rh + blood. The same is true after a miscarriage or abortion — in other words, any time it has become possible for Rh + blood to get into the bloodstream of an Rh - woman. Some doctors give a small dose of the vaccine during pregnancy, and another one after the pregnancy ends.

### How Does The Rh Vaccine Work?

The vaccine contains anti-Rh antibodies (substances that react against Rh + cells). These antibodies destroy the Rh + red blood cells coming from the fetus, thus removing the cause of permanent anti-Rh antibodies. In her next pregnancy, it will be as if the Rh - mother were having a first baby again, as far as Rh blood differences are concerned.

If an Rh - woman's pregnancy ends at 12 weeks or less, the doctor may choose to give her a smaller dose of the vaccine, rather than the full dose needed after a full-term pregnancy. This small dose sometimes is enough to stop the dangerous antibodies from forming, and costs less than the vaccine needed after a full-term pregnancy.

The vaccine may not work for Rh - women who have already had pregnancies, miscarriages, abortions or transfusions that left them with antibodies that could harm their future Rh + babies. Scientists are finding new treatments for such women.

### What Happens If A Mother And Her Unborn Baby Are Both Rh Negative?

There will be no danger of Rh blood disease to the baby, and the mother will not need the vaccine.

If both parents are Rh -, the baby will be negative. Even if the father is Rh +, he may also carry the gene for Rh - blood. This means that the baby has a 50 percent chance of inheriting the father's Rh - blood.

### Why Doesn't Every Woman Who Needs The Vaccine Get It?

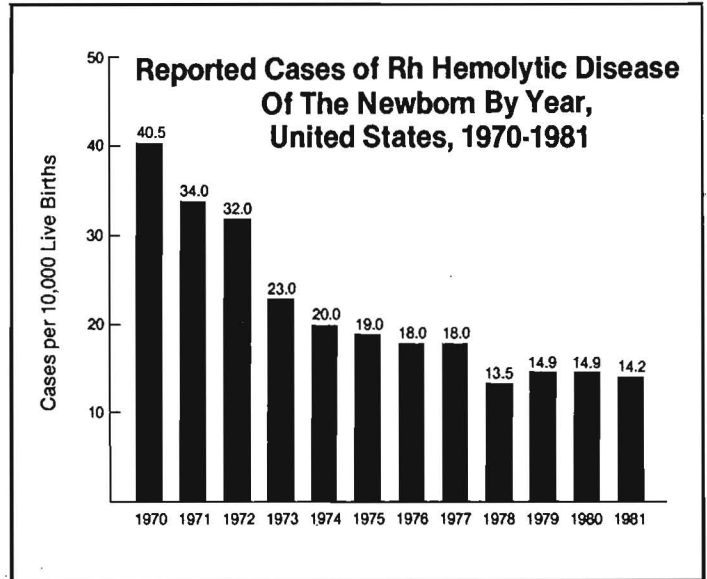
Many people still do not know about the vaccine. Every woman of childbearing age should find out if she is Rh positive or negative.

Another reason is that some patients are overlooked for the blood test that has to be done before the vaccine is given. Shorter hospital stays after childbirth are part of the problem. Also, the cost of the vaccine may pose a problem.

The March of Dimes wants every couple to know that Rh blood disease usually can be prevented by use of the vaccine, and has urged the government to help pay for immunization programs.

### Is There Research On Rh Disease?

Many scientists are doing research on blood diseases and immunity in general. The March of Dimes helps support research on immune mechanisms — ways that your body can fight dangerous blood cells or germs.



Source: Center for Disease Control

For additional copies contact you local March of Dimes chapter.



This information sheet is made possible through contributions to the March of Dimes.

