

# The Rh Factor: How It Can Affect Your Pregnancy

## Frequently Asked Questions

---

### What the Rh Factor Means for Pregnancy

#### What is the Rh factor?

The **Rh factor** is a protein that can be found on the surface of red blood **cells**. If your blood cells have this protein, you are Rh positive. If your blood cells do not have this protein, you are Rh negative. The "positive" or "negative" part of your blood type, such as O positive or A negative, refers to your Rh status.

During pregnancy, problems can occur if you are Rh negative and your **fetus** is Rh positive. Treatment can be given to prevent these problems.

#### How does a fetus get the Rh factor?

The Rh factor is inherited, meaning it is passed from parent to child through **genes**. The fetus can inherit the Rh factor from the father or the mother. Most people are Rh positive, meaning they have inherited the Rh factor from either their mother or father. If a fetus does not inherit the Rh factor from either the mother or father, then the fetus is Rh negative.

When a woman is Rh negative and her fetus is Rh positive, it is called Rh incompatibility.

## Why is Rh incompatibility a problem?

When the blood of an Rh-positive fetus gets into the bloodstream of an Rh-negative woman, her body will recognize that the Rh-positive blood is not hers. Her body will try to destroy it by making anti-Rh [antibodies](#) .

These antibodies can cross the [placenta](#) and attack the fetus's blood cells. This can lead to serious health problems, even death, for a fetus or a newborn.

## How do Rh antibodies develop?

During pregnancy, a woman and her fetus do not usually share blood. But sometimes a small amount of blood from the fetus can mix with the woman's blood. This can happen during labor and birth. It can also happen with

- [amniocentesis](#) or [chorionic villus sampling \(CVS\)](#)
- bleeding during pregnancy
- attempts to manually turn a fetus to be head-down for birth (move the fetus out of a [breech presentation](#) )
- trauma to the abdomen during pregnancy

## When do Rh antibodies cause problems?

Health problems usually do not occur during an Rh-negative woman's first pregnancy with an Rh-positive fetus. This is because her body does not have a chance to develop a lot of antibodies. But if treatment is not given during the first pregnancy and the woman later gets pregnant again with an Rh-positive fetus, she can make more antibodies. More antibodies put a future fetus at risk.

## Can Rh antibodies develop when a pregnancy is not carried to term?

Yes, an Rh-negative woman can also make antibodies after

- [miscarriage](#)
- [ectopic pregnancy](#)
- [induced abortion](#)

If an Rh-negative woman gets pregnant after one of these events and has not received treatment, a future fetus may be at risk of problems if it is Rh positive.

## How can Rh antibodies affect a fetus?

During a pregnancy, Rh antibodies made in a woman's body can cross the placenta and attack fetal blood cells. This can cause a serious type of [anemia](#) in the fetus in which red blood cells are destroyed faster than the body can replace them.

Red blood cells carry [oxygen](#) to all parts of the body. Without enough red blood cells, the fetus will not get enough oxygen. In some cases, a fetus or a newborn can die from anemia. Rh incompatibility can also cause [jaundice](#) in a newborn.

---

## Preventing Rh Problems During Pregnancy

### Can Rh problems be prevented?

Yes, problems during pregnancy caused by Rh incompatibility can be prevented. The goal of treatment is to stop an Rh-negative woman from making Rh antibodies in the first place. This is done by finding out if you are Rh negative early in pregnancy (or before pregnancy) and, if needed, giving you a medication to prevent antibodies from forming.

### How can I find out if I am Rh negative?

A simple blood test can determine your blood type and Rh status. A blood sample can be taken in the office of your [obstetrician–gynecologist \(ob-gyn\)](#). This sample is usually taken during the first [prenatal care](#) visit.

### What is an antibody screen?

An antibody screen is another blood test that can show if an Rh-negative woman has made antibodies to Rh-positive blood. This test can also show how many antibodies have been made.

### When would I need to have an antibody screen?

If you are Rh negative and there is a possibility that your fetus is Rh positive, your ob-gyn may request this test during your first [trimester](#). You may have this test again at 28 weeks of pregnancy. In some cases, you may be tested more often.

## What is Rh immunoglobulin?

[Rh immunoglobulin \(Rhlg\)](#) is a medication that stops the body from making Rh antibodies if it has not already made them. This can prevent severe fetal anemia in a future pregnancy. Rhlg is given as an injection (shot).

If you are in this situation, talk with your ob-gyn about whether you need Rhlg and when you might be given this medication. It is not helpful if your body has already made Rh antibodies.

## When would I need to take Rhlg?

- **At 28 weeks of pregnancy**—A small number of Rh-negative women may be exposed to Rh-positive blood cells from the fetus in the last few months of pregnancy and may make antibodies against these cells. Rhlg given at 28 weeks of pregnancy destroys these Rh-positive cells in the woman's body. This prevents Rh-positive antibodies from being made.
- **Within 72 hours after the delivery of an Rh-positive baby**—The greatest chance that the blood of an Rh-positive fetus will enter the bloodstream of an Rh-negative woman happens during delivery. Rhlg prevents an Rh-negative woman from making antibodies that could affect a future pregnancy. The treatment is good only for the pregnancy for which it is given. Each pregnancy and delivery of an Rh-positive baby requires a repeat dose of Rhlg.

## Are there other times when I might need Rhlg?

Yes, a dose of Rhlg may also be needed in these situations:

- After an ectopic pregnancy, miscarriage, or abortion
- After amniocentesis, CVS, fetal blood sampling, or fetal surgery
- If you had bleeding during pregnancy

- If you had trauma to the abdomen during pregnancy
- If attempts were made to manually turn a fetus from a breech presentation

---

## Treatment if Antibodies Develop

### What happens if antibodies develop?

RhIg treatment does not help if an Rh-negative woman has already made antibodies. In this case, the well-being of the fetus will be checked during the pregnancy, usually with [ultrasound exams](#).

### What if exams show the fetus has severe anemia?

If ultrasound exams show that the fetus has severe anemia, early delivery (before 37 weeks of pregnancy) may be needed. Another option may be to give a blood transfusion through the [umbilical cord](#) while the fetus is still in the woman's [uterus](#).

### What if the fetus's anemia is mild?

If the anemia is mild, delivery may happen at the normal time. After delivery, the baby may need a blood transfusion to replace blood cells.

## Glossary

**Amniocentesis:** A procedure in which amniotic fluid and cells are taken from the uterus for testing. The procedure uses a needle to withdraw fluid and cells from the sac that holds the fetus.

**Anemia:** Abnormally low levels of red blood cells in the bloodstream. Most cases are caused by iron deficiency (lack of iron).

**Antibodies:** Proteins in the blood that the body makes in reaction to foreign substances, such as bacteria and viruses.

**Breech Presentation:** A position in which the feet or buttocks of the fetus would appear first during birth.

**Cells:** The smallest units of a structure in the body. Cells are the building blocks for all parts of the body.

**Chorionic Villus Sampling (CVS):** A procedure in which a small sample of cells is taken from the placenta and tested.

**Ectopic Pregnancy:** A pregnancy in a place other than the uterus, usually in one of the fallopian tubes.

**Fetus:** The stage of human development beyond 8 completed weeks after fertilization.

**Genes:** Segments of DNA that contain instructions for the development of a person's physical traits and control of the processes in the body. They are the basic units of heredity and can be passed from parent to child.

**Induced Abortion:** An intervention to end a pregnancy so that it does not result in a live birth.

**Jaundice:** A buildup of bilirubin (a brownish yellow substance formed from the breakdown of red cells in the blood) that causes the skin to have a yellowish appearance.

**Miscarriage:** Loss of a pregnancy that is in the uterus.

**Obstetrician–Gynecologist (Ob-Gyn):** A doctor with special training and education in women's health.

**Oxygen:** An element that we breathe in to sustain life.

**Placenta:** An organ that provides nutrients to and takes waste away from the fetus.

**Prenatal Care:** A program of care for a pregnant woman before the birth of her baby.

**Rh Factor:** A protein that can be found on the surface of red blood cells.

**Rh Immunoglobulin (Rhlg):** A substance given to prevent an Rh-negative person's antibody response to Rh-positive blood cells.

**Trimester:** A 3-month time in pregnancy. It can be first, second, or third.

**Ultrasound Exams:** Tests in which sound waves are used to examine inner parts of the body. During pregnancy, ultrasound can be used to check the fetus.

**Umbilical Cord:** A cord-like structure containing blood vessels. It connects the fetus to the placenta.

**Uterus:** A muscular organ in the female pelvis. During pregnancy, this organ contains and nourishes the fetus.

---

If you have further questions, contact your ob-gyn.

Don't have an ob-gyn? [Learn how to find a doctor near you.](#)

FAQ027

Last updated: June 2022

Last reviewed: November 2021

*Copyright 2024 by the American College of Obstetricians and Gynecologists. All rights reserved. Read [copyright and permissions information](#).*

*This information is designed as an educational aid for the public. It offers current information and opinions related to women's health. It is not intended as a statement of the standard of care. It does not explain all of the proper treatments or methods of care. It is not a substitute for the advice of a physician. Read [ACOG's complete disclaimer](#).*

About ACOG

Disclaimer

Contact Us

# How to Find an Ob-Gyn



Copyright 2024 American College of Obstetricians and Gynecologists

[Privacy Statement](#)

|

[Terms and Conditions of Use](#)