Complications of Rh incompatibility:

Rh incompatibility can cause symptoms ranging from very mild to fatal. In its mildest form, Rh incompatibility causes hemolysis (destruction of the red blood cells) with the release of free hemoglobin into the infant's circulation.

Hemoglobin is converted to bilirubin, which causes an infant to become yellow (jaundiced). The jaundice of Rh incompatibility, measured by the level of bilirubin in the infant's bloodstream, may range from mild to dangerously high levels of bilirubin.

Hydrops fetalis is a complication of a severe form of Rh incompatibility in which massive fetal red blood cell destruction (a result of the Rh incompatibility) causes a severe anemia resulting in fetal heart failure, total body swelling, respiratory distress (if the infant has been delivered) and circulatory collapse.

Kernicterus is a neurological syndrome caused by deposition of bilirubin into the brain (CNS) tissues. Kernicterus develops in extremely jaundiced infants, especially those with severe Rh incompatibility.

How can Rh disease be prevented?

To prevent Rh disease, all babies of an Rh-negative woman should be tested for their Rh type by a simple blood test at birth. All Rh-negative mothers of Rh-positive babies should receive an injection of a purified blood product called RhIg (rhogam) within 72 hrs of birth. This will prevent sensitization of more than 95% of Rh-negative women. However, studies show that about 2% of pregnant women become sensitized prior to delivery. For this reason, RhIg should be given to an Rh-negative woman after a miscarriage, an ectopic (tubal) pregnancy, an induced abortion or a blood transfusion with Rh-positive blood. Treatment also is recommended after amniocentesis and after another prenatal test called chorionic villi sampling (CVS).

How does RhIg (rhogam) work?

RhIg contains antibodies to the Rh factor. The antibodies quickly attach to and help destroy any Rh-positive fetal cells in the mother's bloodstream.

Protection by RhIg lasts only about 12 weeks, so treatment must be repeated with each pregnancy, and with the situations cited above in which fetal blood cells can mix with the mother's blood.

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RH Incompatibility

The facts you need to know.....

What is RH incompatibility?

Rh incompatibility is a condition which develops when a pregnant woman has an Rh-negative blood type and the fetus she carries has Rh-positive blood.

Alternate names:

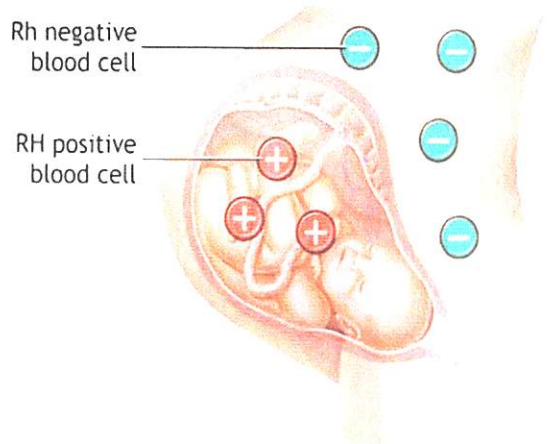
- Rh-induced hemolytic disease of the newborn
- Hydrops fetalis

Causes, Incidences and Risk Factors:

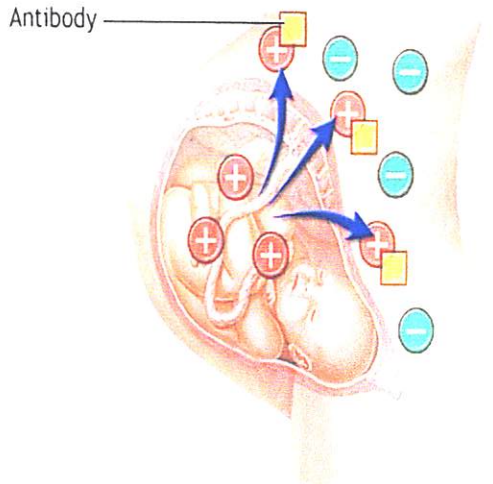
During pregnancy, red blood cells from the fetus can get into the mother's bloodstream as she nourishes her child through the placenta. If the mother is Rh-negative, her system cannot tolerate the presence of Rh-positive red blood cells.

In such cases, the mother's immune system treats the Rh-positive fetal cells as if they were a foreign substance and makes antibodies against the fetal blood cells. These anti-Rh antibodies may cross the placenta into the fetus, where they destroy the fetus's circulating red blood cells.

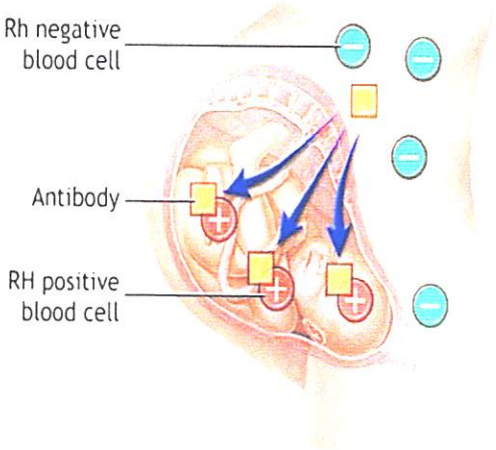
First born infants are often not affected – unless the mother has had previous miscarriages or abortions, which could have sensitized her system – as it takes time for the mother to develop antibodies against the fetal blood. However, second children who are also Rh-positive may be harmed.



Rh incompatibility occurs when the mother's blood type is Rh negative and baby's' blood type is Rh positive



If some of the fetus' blood passes into the mother's blood stream, her body will produce antibodies in response.



These antibodies could pass back through the placenta and harm the fetus' red blood cells, causing mild to serious anemia in the fetus.