

**Rh incompatibility**

An incompatibility of blood types. Blood types are commonly characterized by the ABO typing system and the Rh system. An incompatibility between the mother and fetus in either of these systems can result in maternal antibodies crossing the placenta and destroying fetal red blood cells. The Rh system more often causes serious problems than the ABO system.

Individuals are either Rh-positive (red blood cells carry the Rh antigen) or Rh-negative. When a Rh-negative woman is pregnant with a Rh-positive fetus (Rh-positivity inherited from the father), the mother can produce antibodies against the Rh portion of the fetal red blood cells. These antibodies attack the fetal red blood cells and destroy them. Loss of the fetal red blood cells causes elevated bilirubin, decreased red blood cell count and sometimes even heart failure in the fetus. The combination of these problems can be fatal.

There are ways to treat this problem before the baby is born. More effective than treatment is prevention of the problems. Women are exposed to Rh-positive red blood cells through a previous pregnancy, miscarriage or a mismatched blood transfusion. If a Rh-negative mother has been exposed to Rh-positive red blood cells, she should receive Rho-GAM, a special immunoglobulin that destroys the Rh-positive red blood cells before they can stimulate the woman to produce antibodies against Rh-positive cells.