

Rh Blood Type & Hemolytic Disease of the Newborn About 85% of humans have erythrocytes that express the Rh(D) antigen on their surface. This disease results from the passage of maternal IgG anti-Rh(D) antibodies through the placenta to the fetus, with subsequent lysis of the fetal erythrocytes. When an Rh-negative woman has an Rh-positive fetus (the D gene being inherited from the father), the Rh(D) antigen on the fetal red blood cells will sensitize the mother's adaptive immune response, leading to development of anti-Rh(D) IgG antibodies (Table 64-4). This sensitization occurs most often during delivery of the first Rh(D)-positive child, when Rh(D) erythrocytes of the fetus leak into the maternal circulation (Figure 64-14).