|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Group A** | **Group B** | **Group AB** | **Group O** |
| **Red Blood Cell (RBC) Type** |  |  |  |  |
| **Antigens present on RBCs** |  |  |  |  |
| **Antibodies present in plasma** |  |  |  |  |
| **Receiving blood** | Can receive from  A and O  Cannot have B or AB Blood | Can receive from  B and O  Cannot receive from A or AB | Can receive from A, B, AB and O  ***(AB+ Universal recipient)***  But can only donate to AB | Can only receive from O  Can donate to all groups  ***(Universal donor)*** |

|  |  |  |
| --- | --- | --- |
|  | **Rhesus Positive** | **Rhesus Negative** |
| **Red Blood Cell (RBC) Type** |  |  |
| **Antigens present on RBCs** | Rh antigens | No antigens |
| **Antibodies present in plasma** | None | Anti-Rh |

Rh factor is really only important in a pregnant woman.  Let’s say a woman is Rh negative and the father of the baby gave the baby the genes to have a positive Rh factor.  It’s okay because the baby’s blood isn’t mixing with the mothers or vice-versa.  When it becomes important is when she gives birth to the baby because there’s a break in the blood systems and everything sort of tears a little bit and some of the blood cells from the baby could cross over into the mothers system at that moment of birth and if that sort of goes with no acknowledgement or treatment, the mothers system will recognize that and produce a bunch of these square antibodies to get rid of those.  The Rh- negative mother will produce Rh antibodies upon exposure to Rh factor.  These antibodies are going to be floating in the blood and if, on the next baby, the baby is Rh positive, the mothers system can cross over to the babies system and attack the baby.  This wasn’t figured out until the early 1900’s and took even longer to figure out what to do about that.  Those subsequent babies that were Rh Positive, if they even survived, lived a very short lifespan.  This injection was created called RhoGAM that is given to the mother for the first child of the baby in the 2nd half of pregnancy and within 72 hours of birth to kill the Rh+ cells that have crossed into her blood stream to prevent her from making Rh antibodies.  This way when she has her second baby it’s like starting fresh.

