

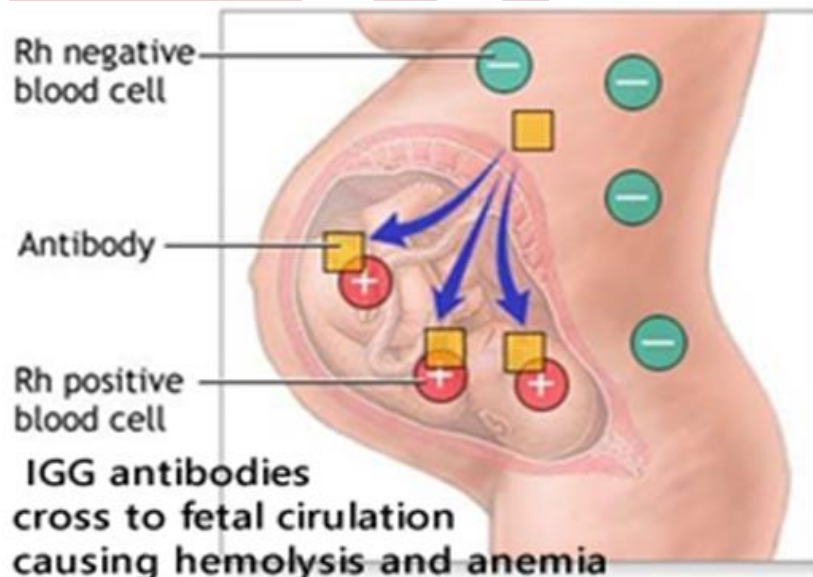


Fetal anemia is the condition where the amount of red blood cells in the circulatory system of the unborn baby, or fetus, is not adequate. The red blood cells carry oxygen to the various organs and cells in the body.

What happens if Fetus has Anemia?

Fetal anemia results in RBC (red Blood Cells) count to fall below the normal level causing inadequate level of oxygen to the cells and various organs of the developing fetus. The fetal heart tries to deal with the insufficient quantity or quality of red blood cells by pumping harder which can put the fetus at the risk of heart failure. Untreated fetal anemia can lead to fetal death.

What Are The Causes Of Fetal Anemia?



The most common cause is when the mother has Rh negative blood group and the baby has Rh positive blood group where the unborn baby, inherits some blood antigens from the father that are not present in the mother. The mother's system does not recognize these and creates antibodies to attack the cells of the fetus. It can lead to destruction of the red blood cells in the unborn baby. This is known as Rh isoimmunization.



Besides this there are various other causes of fetal anemia which are grouped under non immune hydrops.

### Can A Fetus At Risk Of Fetal Anemia Be Identified?

Screening for iso-immunization is a part of the routine prenatal lab tests. If the result is positive, tests are conducted to identify the antibody and to determine the antibody level (titer). The test can be repeated in every 3 to 4 weeks. Not all the maternal antibody gives rise to fetal anemia.

If the expecting mother is exposed to parvo virus, and if this is her first-time exposure, she should be closely monitored for the signs of fetal anemia.

### How is the Diagnosis Of Fetal Anemia be made?



It can be done using ultrasound to measure the blood flow in one of the arteries in the baby's brain (called the middle cerebral artery or MCA). One of the fetal responses to anemia is to speed up the blood flow to the brain. This test has been shown to be useful in screening for fetal anemia in several conditions, including RBC alloimmunization and parvovirus.





Also when a fetus is severely anemic, there is accumulation of fluid under the skin, in the abdomen and in the chest (hydrops) which can be detected on ultrasound.



How Is Fetal Anemia Treated? What therapies are available?

When severe fetal anemia is diagnosed, intrauterine fetal transfusion may be considered which has a good outcome.

