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# Treating Anemia in the Newborn

Your newborn has been diagnosed with anemia. This means the baby's blood has fewer red blood cells than normal. Red blood cells carry oxygen throughout the body. When a baby has anemia, the body doesn't get enough oxygen. As a result, the baby feels tired and has less energy. Many babies have mild anemia within a few months after birth. These cases don't need treatment. But your baby's anemia is more severe. It must be treated to bring the red blood cell count back up.

## Signs of possible anemia in a newborn

- Short periods of not breathing (apnea)
- Fast breathing
- Pale skin
- Poor weight gain
- Decreased activity
- Fast heart rate (tachycardia)
- Severe swelling (hydrops)

## Causes of anemia

Your baby's anemia is likely caused by at least 1 of these problems:

- **Blood loss.** This cause is common in babies in the NICU (neonatal intensive care unit). This is because blood must be taken from the baby so certain tests can be done. Because of this risk, NICUs try to limit the amount of blood drawn as much as possible. A baby who has internal bleeding (hemorrhage) could also become anemic. In some cases, some of the baby's blood moves into the mother's bloodstream during pregnancy. As a result, the baby has less blood. This is called a fetal-maternal transfusion. Blood loss can also occur in twins if one twin got less blood than the other during pregnancy. This is called a twin-to-twin transfusion. Blood loss can also occur during a traumatic delivery or if the placenta is not cut on time.
- **Low red blood cell production.** This occurs if the baby doesn't get enough iron. Iron is a nutrient that helps build red blood cells. Normally, the baby's body stores iron during the last months of pregnancy. When a baby is born early, less iron is stored and the body is less able to respond to the need to make more red blood cells. There are also some infections and rare genetic conditions where the baby's bone marrow does not make enough red blood cells.
- **Shortened red blood cell life (hemolysis).** This means the baby's red blood cells aren't living as long as they're supposed to. Newborn red blood cells don't live as long as adults' red blood cells do. Also in some newborns, the baby's blood type is not compatible with the mother's blood type. During pregnancy, the mother's body made substances called antibodies that fought against the baby's red blood cells. These antibodies can enter the baby's blood. As a result, the baby's red blood cells don't live as long. Hemolysis can have other causes, too. Talk with the healthcare provider about the cause of your baby's hemolysis.

## Treatments for anemia

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- A blood transfusion puts healthy donor blood into the baby's body. This is done through an IV (intravenous) line. The donor blood helps bring the baby's red blood cell count back to normal.
  - Medicine may be given to the baby through an IV line or by injection. The medicine prompts the baby's body to make more red blood cells. This treatment is not routinely used and may have side effects.
  - Iron supplements may be given by mouth. These can help the baby make more red blood cells.

## **What are the long-term effects?**

Once treated, anemia does not cause long-term complications for most babies. Talk with the healthcare provider about how your baby is likely to progress.

## **Special notes for parents of preemies**

Anemia of prematurity (AOP) often occurs in preemies born before 35 weeks' gestation. This happens because the baby was born before their red blood cell production matured. The earlier the baby is born, the more likely they are to develop AOP. When a preemie is discharged from the hospital, an iron supplement is often prescribed. This helps keep the baby's red blood cell count up to prevent anemia from returning. Your baby's healthcare provider will tell you more.