What is a blood transfusion? A blood transfusion [trans-FYOO-zhuhn] is a process in which blood is given to your baby. This is a common need in premature babies and full-term babies born with health problems.

Why might my baby need a blood transfusion? A blood transfusion is a way to provide extra red blood cells (RBCs) to the baby. Red blood cells carry oxygen throughout the body and it is vital that the baby has a certain amount. The number of RBCs declines after birth in all newborns. Babies born early may have a low level of RBCs because the part of the body that makes these cells (the bone marrow) does not yet have full function. The RBC level also may decline in premature babies or babies born with health problems due to blood loss during birth, during surgery, or from the many blood tests required to treat the infant. Low RBC levels also may be caused by a problem the baby is born with, such as certain inherited disorders. When a baby has too few RBCs, the baby has a problem called anemia [uh-NEE-mee-uh].

If the baby’s blood cannot carry enough oxygen, then the baby’s heart must work harder to pump more blood and oxygen to the organs. This reaction may overwork the baby’s heart and may lead to heart failure or to other severe problems. The ideal amount of RBCs varies for every baby and depends on the baby’s health. In the case of anemia, not doing a transfusion may cause a low oxygen level that may lead to poor growth, brain and organ injury, and slowed recovery from other health problems.

Although less common, babies also may be given transfusions to provide other types of blood cells. For instance, white blood cells (WBCs) may be given to help fight off infection or to increase low WBC levels. A type of cell called platelets also may be given. These help the blood to clot (that is, to stick together in clumps) and thus play a vital role in reducing problems with bleeding. Fresh frozen plasma also may be given.

How is the transfusion given? The blood is given directly into the baby’s bloodstream through an intravenous (IV) line inserted through the skin. When placing this line in your baby, health care staff are trained to take careful steps to monitor and help prevent infection.

Can I or a family member donate our own blood? Yes, this is called a directed or designated donation. To do this, the donor will be asked questions and have his or her blood tested to make sure it is free from infection. The blood will then be cleansed to reduce the risk of any immune factors that may cause problems for the infant. Although giving your baby your own blood may seem like the best option, studies show that it is no safer than blood given by other donors.* Mothers who have an infection should not donate their blood. Even though the infant may have been exposed to the infection while in the womb, this does not protect the infant from the bacteria. Since it takes time to process blood, it may not be possible to wait for a family donor.

What are the risks associated with transfusions? Although steps are taken to help prevent problems with blood transfusions, problems may occur during or after the transfusion process, such as:

Infection: An infection can be caused by needles used for the transfusion or by an infected blood product. All blood is tested for bacteria and viruses.* The first part of this process is a series of questions about what the person has been exposed to. Then the donated blood is tested. With testing, the risk of infection is minimized, but some organisms cannot be detected by tests.**

Fluid balance: If the baby requires a large volume of blood, factors in the blood (such as calcium, glucose, potassium and sodium) need to be balanced. These factors help keep the heart and other organs running smoothly.

What can parents do? As a key member of your baby’s care team, you can help your infant by keeping informed of his or her health care needs and treatments. This not only helps your infant, but also helps you have a better idea of what is happening and what to expect. Talk to your baby’s doctors and nurses about any questions you may have.

Mothers who have just given birth are advised not to donate blood until 6 weeks after giving birth. Parents/family who know in advance that their baby may need a transfusion after birth may donate blood before the birth.

Find out more: these websites may be helpful

American Academy of Pediatrics
www.aap.org/parents

The Journal of the American Medical Association, Patient Page
http://jama.ama-assn.org/misc/patient.dtl

Centers for Disease Control and Prevention, Division of Blood Disorders
www.cdc.gov/ncbddd

National Heart, Lung, and Blood Institute
www.nhlbi.nih.gov

Medline Plus®
www.nlm.nih.gov/medlineplus


This information is for educational purposes only and is not intended to substitute for professional medical advice. Always consult with a health care professional if you have any questions about the health of your baby.