

# Let's Talk About...

## Blood Transfusion

### What is a blood transfusion?

A blood transfusion is when blood or parts of blood from another person is given to your child, usually through a vein.

### Why does my child need a blood transfusion?

A blood transfusion replaces blood lost during surgery or a serious accident. Your child may also need a blood transfusion if they have a medical condition in which their body does not produce enough of certain parts of blood. In either case, your child's doctor may order a transfusion of 1 or more components (parts) of blood.

Blood components that may be transfused include:

- **Red blood cells:** Cells in the blood that carry oxygen
- **Plasma** [PLAZ-muh]: Liquid part of the blood that carries important clotting factors and other substances
- **Platelets** [PLATE-lits]: Parts of the blood that help it to clot
- **Cryoprecipitate** [kry-uh-preh-SIP-i-tayte]: Concentrated, liquid part of blood that also help it to clot

### How much blood does my child get during a transfusion?

The amount of blood your child is given depends on their size and how much blood they need. Babies usually need only a small amount of blood. Generally, they receive a tablespoon of blood for each pound of weight. For example, a 6-pound baby may receive a transfusion of 6 tablespoons of blood.

### How is a blood transfusion done?

Blood is usually transfused through an **intravenous** [in-trah-VEEN-us] line (an IV) placed in your child's vein. The doctor or nurse puts a small tube called a **catheter** [KATH-eh-ter] into a vein, usually in your child's arm. (A newborn may have an IV inserted in their arm, leg, head, or umbilical cord.) It can also be given through a central venous catheter (port or central line).

Aplastic bag with blood products is hung on an IV pole. The blood flows from the bag into your child's IV line. The IV may be connected to a pump, which controls how much is given.

During the transfusion, a healthcare provider will check your child's vital signs often to make sure they aren't having a negative reaction to the blood product.

### Where does the blood come from?

Blood used in transfusions most often comes from a **volunteer donor**. In rare circumstances, family and friends can donate for a specific patient if their blood is compatible. This is called a **direct donation** and requires medical approval and a specific doctor's order. Directed donors must donate blood at least 7 days in advance to ensure the blood can be tested before it is transfused.

**Note:** In many situations, your child may need a blood transfusion suddenly and immediately. Because of the timing, direct donation is usually not possible. If friends and family can't provide a direct donation, they can still contribute by donating blood for others at the local blood bank.

## Are blood transfusions safe?

Blood collection facilities follow strict rules to make sure donated blood is safe before your child receives it. They:

- Screen all donors before they donate blood. If a person is considered high-risk for infection or other problems, they can't donate blood.
- Test all donated blood for hepatitis, syphilis, human T-lymphotropic virus, West Nile virus, HIV, CMV, and bacteria
- Destroy all blood that is unsafe

Donated blood must also be compatible with your child's blood before it is transfused. Blood is divided into 4 types (A, B, AB, and O) and can be Rh negative or positive. Your child must only receive blood products compatible with all aspects of their blood type.

## What are the risks?

While most problems with transfusions are rare, your child may have:

- Too much fluid in the blood vessels. This can be prevented by giving the transfusion slowly.
- An infection from a germ in the IV or germ that wasn't detected in the donor blood.
- A hemolytic reaction. This is a rare problem where blood cells break down too fast and release their contents directly into the bloodstream.
- An allergic reaction to donated blood, including fever, rash, and a drop in blood pressure

## How does your child's armband keep them safe?

Intermountain policy says that patients must keep their patient identification armbands on from the time a blood sample is taken until the red blood cell transfusion is complete. The armband serves as a safety measure. It links your child's blood sample, tests, and appropriately-matched blood product back to them when they get their transfusion. If the armband is removed before your child's red blood cell transfusion, a new armband must be placed and a new blood sample drawn and retested. This takes time and costs extra.

If your child is only getting plasma products (non-red blood cells), they may be able to get a new armband and may not need a new blood sample.

## When should I call my child's doctor?

**Call your child's healthcare provider if you notice any of the following signs or symptoms:**

### **Within a few hours after transfusion:**

- Hives or itching
- Fever or chills
- Nausea or vomiting
- Flushed face
- Skin rash

### **Within a few weeks of transfusion:**

- Increased fatigue
- Red or brown urine
- Shortness of breath
- Jaundice (yellowed skin or eyes)

### **Up to 6 months after transfusion:**

- Jaundice
- Nausea or vomiting
- Dark urine (pee)
- Increased fatigue

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