

Let's Talk About...

Reduction transfusion in a newborn

A **reduction transfusion** [trans-FYOO-zhun], also called a **partial exchange**, is a procedure to thin your baby's blood and replace some of it with saline [SAY-leen] solution (sterile salt water).

Why does my baby need a reduction transfusion?

Your baby may need a reduction transfusion if they have **hyperviscosity** [HI-per-viss-COSS-ih-tee], a condition in which the blood can't flow freely. Hyperviscosity thickens the blood and slows (or sometimes blocks) blood flow inside the small blood vessels. This may damage the kidneys, lungs, and brain.

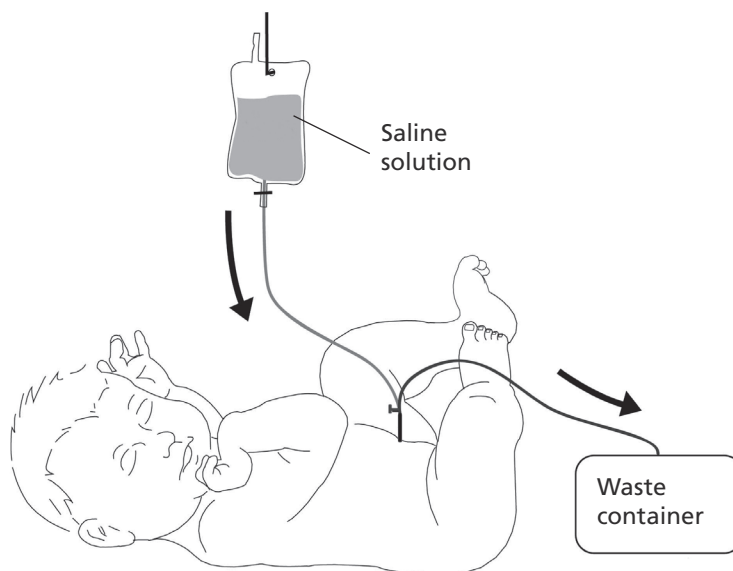
A reduction transfusion helps thin your baby's blood so it can flow more freely. It is an option when hydrating (adding fluid to) the blood through an IV (tiny tube inserted into a vein) hasn't worked or isn't likely to work. Reduction transfusion also works faster than IV hydration, so this is a better option if your baby's condition has gotten worse.

What happens during a reduction transfusion?

During a reduction transfusion:

- 1 A healthcare provider puts your baby on a flat bed with a heater over it.
- 2 A doctor or nurse inserts a small tube called an **umbilical vein catheter (UVC)** into a vein in the belly button.
- 3 The doctor or nurse then connects the UVC to a transfusion set with two lines. One line contains saline, and the other goes to a waste container.
- 4 Your baby's blood is slowly pulled from their body while the same amount of saline goes into their veins.

A reduction transfusion usually takes about 30 to 45 minutes and rarely lasts more than 1 hour. The illustration below shows how saline flows into your baby's veins and blood leaves the body.



Talking with your child’s doctor about a reduction transfusion

The table below lists the potential benefits, risks, and alternatives for a reduction transfusion. Talk to your child’s doctor about this process, and ask questions before the procedure begins.

Possible benefits	Risks and possible complications	Alternatives
<p>A reduction transfusion can remove excess red blood cells in your baby’s body. This may help the blood flow more normally to vital organs. It may also help to treat or prevent:</p> <ul style="list-style-type: none"> • Hypoglycemia [HI-poh-gly-SEE-mee-uh], or low blood sugar • Jaundice [JON-diss] ,or yellow skin) • Hyperbilirubinemia [HI-per-BILL-ee-roo-bin-EE-mee-uh], or too much bilirubin (coloring made when the body recycles the iron-carrying chemical in red blood cells) • Plethora [PLETH-oh-ruh], or too much blood in the body 	<p>Risks and possible problems with a reduction transfusion may include:</p> <ul style="list-style-type: none"> • Removing too much blood, which can lead to anemia (too few red blood cells) • Removing too little blood, which may mean healthcare providers need to repeat the procedure • Infection from bacteria that entered through the catheter • Blood vessel problems, such as a blood clot, air embolism (bubble), or artery spasm, which can limit blood flow and hurt organs and tissues • Bleeding outside of a blood vessel • Temperature problems (becoming too hot or too cold) • Necrotizing [NECK-row-TY-zing] enterocolitis [en-TER-oh-coh-LY-tiss], or NEC, a serious bowel disease 	<p>If your baby’s blood is only slightly thickened, aggressive IV hydration may be an alternative. In many cases, there is no alternative to a reduction transfusion.</p>



Questions for my child’s doctor

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