

Hypoglycemia in a Newborn

What is it?

Hypoglycemia [hahy-poh-glahy-SEE-mee-uh] means a low level of **glucose** in the blood (low blood sugar). Glucose is a type of sugar that is the brain's main source of energy. About 15 out of every 100 newborn babies have low blood glucose levels in the first few days of life.

Why is it a concern?

Hypoglycemia may cause your baby's brain to not work well. If a newborn baby's blood glucose level is very low or stays low for a long time, the baby can have seizures or a brain injury. **Most of the time, a newborn's blood glucose level can quickly go back to normal with treatment. Early treatment can help prevent possible problems like seizures and brain injury.**

How is it diagnosed?

Hypoglycemia is diagnosed by testing your baby's blood. This test requires taking a small amount of blood from your baby's heel, then testing it at your baby's bedside. If the blood glucose level is too low for your baby's age, the doctor will diagnose hypoglycemia and start treatment.

At Intermountain hospitals, healthcare providers regularly check the blood glucose levels of babies who have symptoms or risk factors for hypoglycemia. Risk factors are things that increase a baby's chance of getting hypoglycemia. (Possible risk factors in a newborn are listed on page 2 of this fact sheet.)



Extra feedings are the first choice for treating hypoglycemia in a newborn

What are the symptoms?

Some newborns with hypoglycemia have no symptoms at all. Others have one or more of these:

- Bluish or very pale skin
- Breathing problems such as fast breathing or pauses in breathing
- Fussiness or low energy
- Low muscle tone — slack muscles or “floppiness”
- Vomiting or poor feeding
- Low body temperature
- Shakes, tremors, or seizures

What are the causes and risk factors?

There are several possible reasons for low blood glucose levels in a newborn. Perhaps the baby's body is using glucose faster than it's being made. It's possible that the baby hasn't taken in enough glucose—through feedings—to meet the body's needs. It's also possible that the baby's pancreas is making too much insulin, a hormone that pulls glucose out of the blood.

Doctors don't always know what causes low blood glucose levels in newborns. Some babies have a greater chance of having hypoglycemia than others. Newborns at risk for hypoglycemia include those who:

- Are born early (premature babies)
- Are smaller than normal at birth
- Are larger than normal at birth
- Have a serious infection
- Needed oxygen right after birth
- Have a mother with diabetes
- Have certain rare genetic disorders

Newborns with one or more of the risk factors above—or those who have symptoms—have their blood glucose levels checked right after birth.

How is it treated?

There are several ways to raise a baby's blood glucose level. Your baby may have one or more of these treatments:

- **Extra feedings.** Just as with an adult, food boosts a baby's blood glucose level. For hypoglycemia, your baby will probably need extra feedings of breast milk or formula. (If you're breastfeeding, your baby may need to have formula in addition to your milk—at least until your body is producing enough and your baby is feeding well.)

- **Glucose gel by mouth.** A sugar gel is placed into your baby's mouth and rubbed into the cheek for 30 seconds. This will be immediately followed by a feeding.
- **Glucose through an IV.** A sugar liquid is given through an intravenous line (IV). An IV is a small plastic tube which is inserted into your baby's vein. This treatment can quickly raise your baby's blood glucose level.
- **Medicine.** If blood glucose levels continue to stay low, your baby's doctor may recommend medicine.

Your baby will be monitored closely during treatment. This may include having additional blood glucose checks and may require admission to the hospital's nursery or Newborn Intensive Care Unit.

How long does treatment last?

Treatment can last from a few hours to a few days—or as long as needed to make sure your baby is able to maintain normal blood glucose levels.

If your baby has trouble reaching or maintaining normal levels, the doctor may contact a specialist. The specialist can help determine whether your baby needs additional tests or treatments.



Questions for my doctor:

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