



## Hypoglycemia (Low Blood Sugar) in the Newborn

### What is hypoglycemia in the newborn?

Hypoglycemia is a condition in which the amount of glucose (sugar) in the blood is lower than normal. 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 hypoglycemia a concern?

The brain depends on blood glucose as its main source of fuel. Too little glucose can impair the brain's ability to function. Severe or prolonged hypoglycemia may result in seizures and serious brain injury.

### How do we know if your baby has hypoglycemia?

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.

### What are the symptoms of hypoglycemia?

Symptoms (signs) of hypoglycemia may not be obvious in newborn babies and each baby may experience symptoms differently. The baby's symptoms may include:

- Does not feed well
- Has low body temperature (called hypothermia)
- Has a high-pitched or weak cry

- Seems to shake or shiver
- is very weak with limp muscles
- Breathes very fast, and
- Has a high heart rate

More severe signs of hypoglycemia in a newborn may include:

- Stops breathing for short periods of time (called apnea)
- Has seizures, or
- Has a bluish color to his or her skin (called cyanosis)

### What is the treatment for hypoglycemia in the newborn?

Specific treatment for hypoglycemia will be determined by your baby's doctor based on:

- Your baby's gestational age, overall health, and medical history
- Your baby's tolerance for specific medications, procedures, or therapies
- Your opinion or preference

Treatment includes giving your baby a rapid-acting source of glucose or formula.

Or, your baby may need glucose given intravenously — sugar is fed right into the baby's bloodstream through a needle placed in the baby's vein. This is called an intravenous line or IV. The baby may need an IV for several days, but he or she can usually still feed from the mother's breast or bottle during this time.

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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.

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.

## Can hypoglycemia in the newborn be prevented?

There may not be any way to prevent hypoglycemia, only to watch carefully for the symptoms and treat as soon as possible. Mothers with diabetes can help minimize the amount of glucose that stresses the baby by tightly controlling their blood glucose levels to maintain them in a normal range.

## Which babies are more likely to develop hypoglycemia?

Babies have an increased risk for low blood sugar if:

- the first feeding occurs six hours or more after birth.
- they are born early (premature) and/or with a low birth weight (less than 5.5 pounds or 2,500 grams).
- they are born too small for the number of weeks they have been in the womb.
- they are born too large for the number of weeks they have been in the womb.
- their body is under stress due to a health problem, such as lack of oxygen (stress causes the baby's body to use more sugar).
- their mother has diabetes (type 1, type 2, or gestational).
- they are born with a health problem that is known to cause low blood sugar.
- their mother takes or receives medicine(s) known to cause low blood sugar in babies.

## What about when I get home?

- Your child's healthcare provider may prescribe a special feeding schedule for your young baby. Follow the provider's instructions for feeding.
- Be aware of your baby's signs of hunger and low blood sugar.
- Allow time for frequent, quiet feedings. If your baby is not feeding well, talk to your health care team.
- Keep your baby dressed warmly. Newborns have trouble regulating their body temperature. They can get cold easily. Cold may trigger a hypoglycemic reaction. If your baby has a lower body temperature than normal, warm him or her as soon as possible. Add more layers and a cap to hold in body heat. Remove any damp clothes and replace with warm, dry clothes. Keep your baby away from drafts.
- If you have diabetes and are breastfeeding, watch your glucose levels closely.
- If instructed to do so, check your baby's blood sugar as directed.
- If symptoms return
  - Feed your baby breastmilk or infant formula, and call your baby's health care provider.
  - Follow up with your baby's health care provider, or as advised.
- If lab tests were done, you will be told of any results that may affect your baby's care.

## When should I seek medical advice?

Call your baby's health care provider right away if any of these occur:

- Fever higher than 100.4°F (38°C) rectal, or a temperature lower than normal
- Returning signs of low blood sugar (see symptoms above)



*The Perinatal Quality Collaborative of NC provided the information in this fact sheet.*

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