

An Introduction to Hyperinsulinism

Your child has been diagnosed with a health condition that causes low blood sugar. It is normal to feel overwhelmed by your child's new diagnosis. With proper treatment, this condition is manageable. In partnership with your healthcare team, you will learn all about hyperinsulinism and how to safely care for your child at home.

Understanding a Few Terms:

- **Pancreas:** A gland that makes insulin
- **Insulin:** A hormone made by the pancreas that lowers blood sugar
- **Hyperinsulinism:** Too much insulin
- **Hypoglycemia:** Low blood sugar

What is Hyperinsulinism?

Hyperinsulinism happens when the pancreas makes too much insulin, which causes the blood sugar to go too low.

Hypoglycemia can be dangerous because the brain depends on a constant source of sugar for normal development. Diagnosis and treatment will minimize hypoglycemia and protect brain development.

Changes in genes can cause hyperinsulinism. The change in your child's genes may be passed on from one or both parents, or it may be a random change (not passed from parent to child). Your child's doctor may do a blood test to see if your child's hyperinsulinism has a genetic cause.

Hyperinsulinism can be persistent (life-long) or transient (temporary). Transient hyperinsulinism will go away after a few days to a few months. It can happen in children who are born early, who are small for gestational age, who have mothers with diabetes, or who have had a difficult birth.

If your child's hyperinsulinism is persistent, your health care professionals will provide you with more information.

How Common is Hyperinsulinism?

Persistent hyperinsulinism is not very common. It happens in about one in every 40,000 to 50,000 births (*Journal of Medical Genetics*, Vol. 46, issue 5).

How is Hyperinsulinism Diagnosed?

- Physical symptoms
- History of low blood sugars
- Blood Tests

What are the Symptoms of Low Blood Sugar?



- ▶ Sweaty
- ▶ Pale



- ▶ Shaky



- ▶ Hungry



- ▶ Mood changes
- ▶ Acting strange



- ▶ Dizzy
- ▶ Weak



- ▶ Trouble focusing or thinking
- ▶ Feeling or acting confused



- ▶ Feeling sleepy or tired.

Low blood sugar illustrations used with permission from the Diabetes Program at BC Children's Hospital

- **Additional signs of low blood sugar in infants include:** poor feeding, jitteriness, floppy muscle tone, difficulty breathing, lower than normal body temperature, and seizures.

How Do You Treat Hyperinsulinism?

- Regular, frequent feedings
- Intravenous (IV) therapy may be necessary to keep the blood sugar in a healthy range
- Medications to prevent hypoglycemia
- Occasionally, surgery to remove a part of the pancreas is needed

How Can I Help My Child?

- **Feed** your child as scheduled
- **Monitor** your child's blood sugars as recommended
- **Watch** for signs of low blood sugars
- **Treat** low blood sugars as recommended
- **Teach** family members and caregivers how to recognize and treat low blood sugars