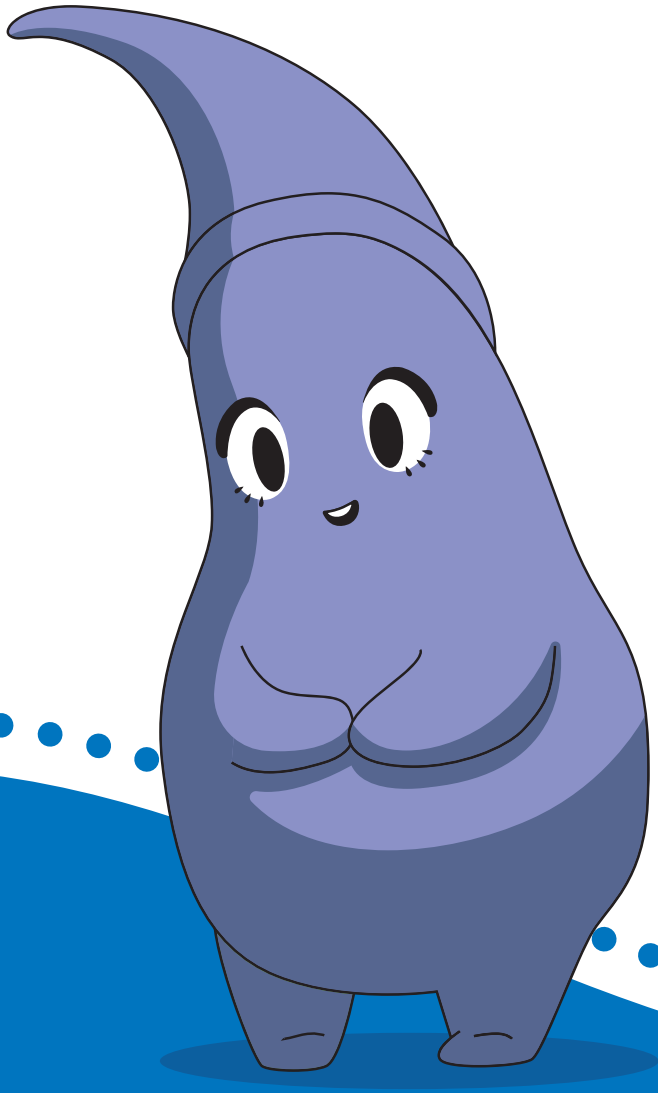
ANZSPED
AUSTRALIA AND NEW ZEALAND SOCIETY FOR PAEDIATRIC ENDOCRINOLOGY AND DIABETES

Want to know more about

Hyperinsulinism



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What is hyperinsulinism?

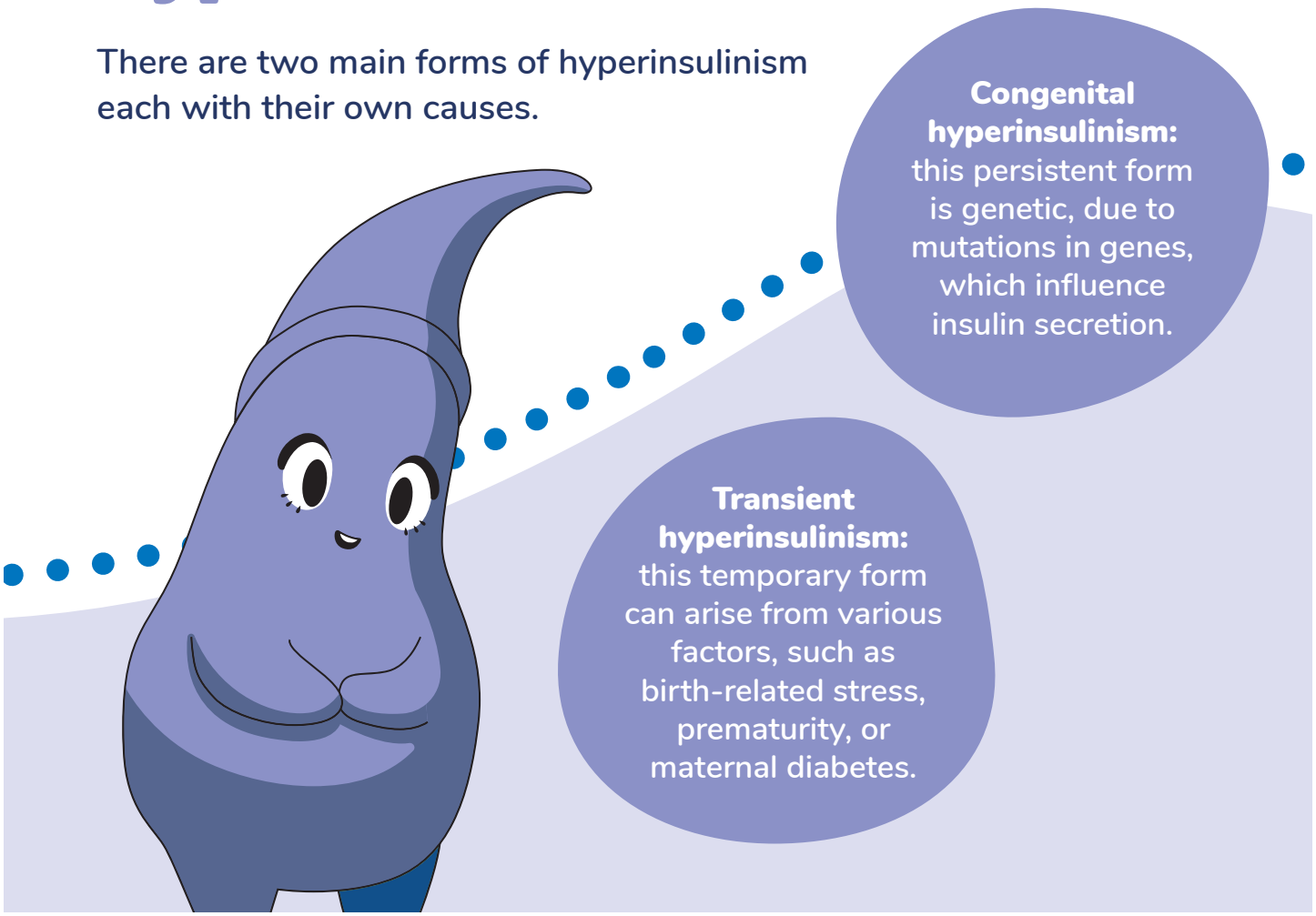
Hyperinsulinism is caused by too much insulin being released from the pancreas, leading to very low blood sugar levels. This can lead to serious health problems if it is not treated.

What is insulin?

Insulin is a hormone that helps control blood sugar levels. It helps transport glucose (sugar), a vital source of energy, to the body's cells, including brain cells. In hyperinsulinism, the overproduction of insulin leads to low blood sugar (hypoglycaemia), potentially causing severe symptoms in infants and children.

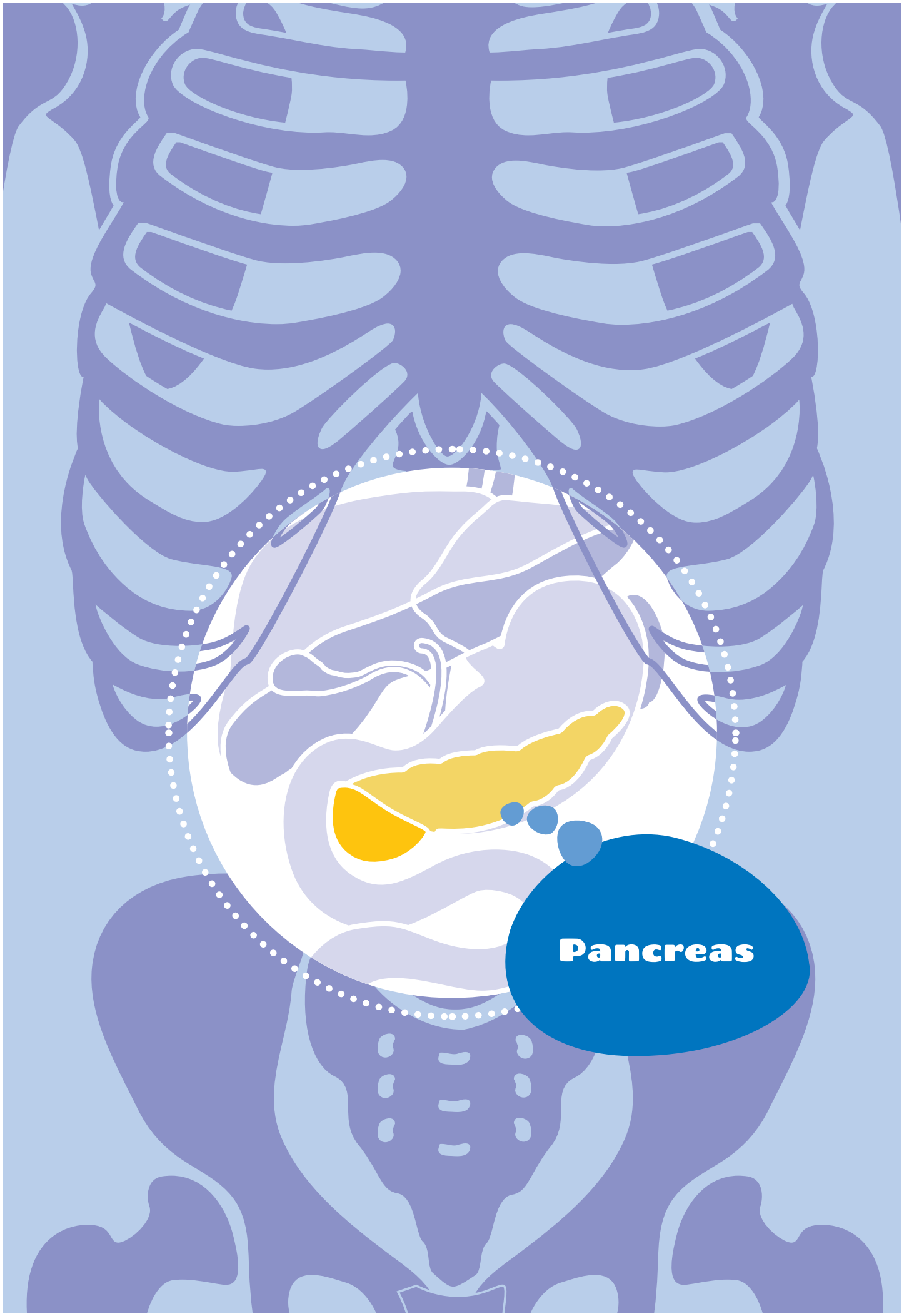
What is the cause of hyperinsulinism?

There are two main forms of hyperinsulinism each with their own causes.



Congenital hyperinsulinism: this persistent form is genetic, due to mutations in genes, which influence insulin secretion.

Transient hyperinsulinism: this temporary form can arise from various factors, such as birth-related stress, prematurity, or maternal diabetes.


Pancreas

What are the symptoms?

Symptoms typically appear within the first days of life, though they may occasionally emerge later. Signs of hypoglycaemia can include:

- Poor feeding.
- Floppiness.
- Sleepiness.
- Fits or convulsions (seizures).

If the baby or child's blood sugar level is not corrected, it can cause loss of consciousness and possible brain injury.

How is it diagnosed?

Diagnosis involves blood and urine tests when blood sugars are low (hypoglycaemic episodes). If the congenital form is suspected, then blood samples are sent for genetic testing and in rare cases a scan may be required to pinpoint the specific area of the pancreas that is overactive.

How is it managed?

Regular feeding and medication are used to keep the blood sugar levels stable. The specific treatments recommended will depend on the type of hyperinsulinism. Some of the medications used to keep blood sugar levels stable include glucagon, diazoxide, and octreotide. Sometimes surgery is required.

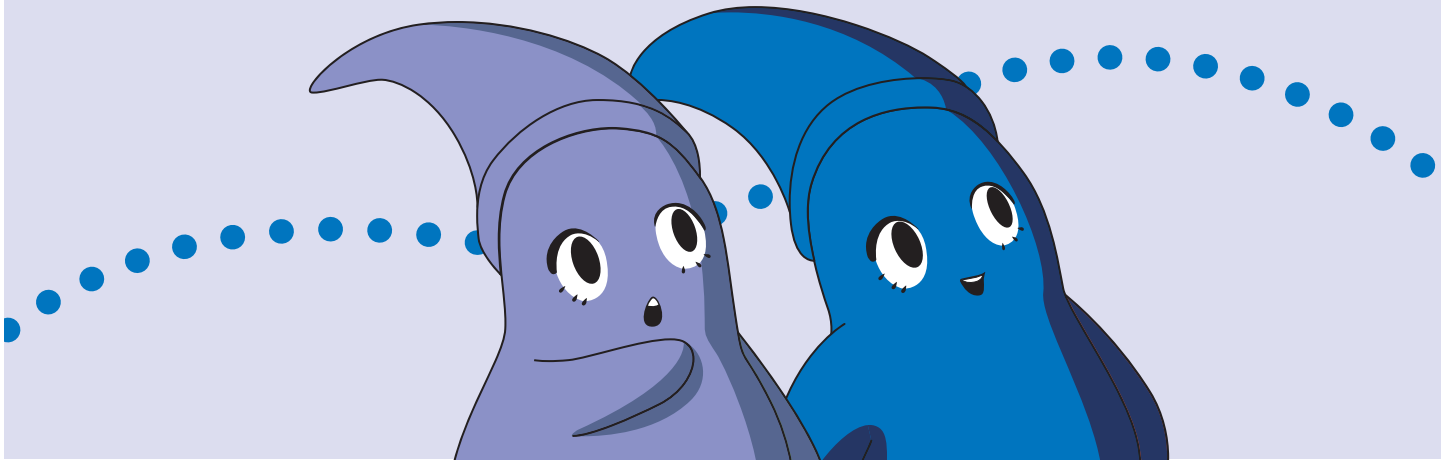
Babies with feeding problems may also have a nasogastric (NG) tube inserted to assist feeding. This tube goes through the nose, down the throat and into their stomach. If tube feeding is required long term, a tube can be inserted into the stomach (gastrostomy).

What is the outlook for children with hyperinsulinism?

With increased knowledge and research, the outcomes for these children are continually improving. Transient hyperinsulinism usually resolves over days to weeks. Congenital hyperinsulinism can be managed effectively with long term treatment.

Disclaimer

This leaflet has been written by members of ANZSPED. It is designed to give you some general information about your child's condition and treatment. If you have any questions about your child's condition and treatment, it is best to speak to your child's doctor or specialist nurse.



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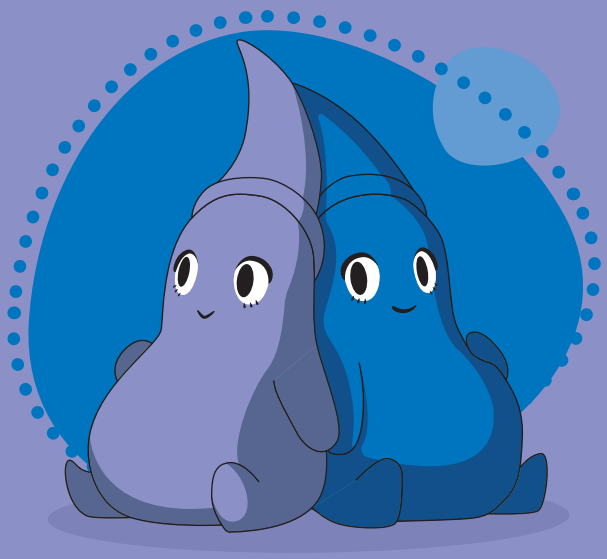

Remember

Regular medication is important for your child's growth and development and close review by your child's medical team is essential.

Support and Resources

A supportive community for parents and caregivers is vital.
Visit Congenital Hyperinsulinism International at https://congenitalhi.org/ for resources and support.

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