

Hypoglycaemia

Information for Health Professionals

Definition

Hypoglycaemia occurs when the blood glucose level (BGL) is less than 4mmol/L, or when there are symptoms of a 'hypo' at a level close to this.¹

Causes

- not enough or missed carbohydrate at meals or snacks (for the dose of insulin taken)
- exercising without eating extra carbohydrate, or exercising without reducing your insulin dose
- having too much insulin for the amount of food eaten
- having too much insulin (either accidentally or dose needs changing)
- when sick and not being able to eat or if unable to keep food down because of vomiting

Signs & Symptoms

Listed are some of the common signs and symptoms of hypoglycaemia seen in young people with diabetes:

- shakiness
- pallor
- abdominal pain
- headaches
- irritability
- inability to concentrate
- dizziness
- hunger
- aggressiveness
- sweatiness
- nausea
- blurred vision

Treatment

You need to encourage young people to perform a BGL if they think they are 'hypo'. If the BGL is less than 4 mmol/L, some quick acting carbohydrate (glucose) should be given immediately.

After the 'hypo' is treated, wait about 10 minutes for the carbohydrate to work, and then repeat the BG test. If the BGL is still less than 4 mmol/L, then some more quick -acting carbohydrate should be eaten.

Extra quick-acting carbohydrate should be eaten until the blood glucose level rises above 4mmol/L. If the 'hypo' has occurred near a snack or a meal-time, treat the 'hypo' to raise the BGL and then give the usual meal or snack. If a meal or snack is not due or it is in middle of the night then, once the BGL is back above 4 mmol/L some slower acting carbohydrate needs to be eaten.

Examples of quick-acting carbohydrate

- Lucozade® - 100 mls
- Insta-Glucose® - ½ tube (full tube 30G)
- Fruit Juice - 120 mls
- Ordinary soft drink -150 mls
- Glucose & Honey mixture (Coles Home brand) - 2-4 teaspoons
- Jelly Beans - 7

Tips for Treating 'Hypo's'

Lucozade® is a glucose drink that works very quickly to raise blood glucose levels. It is better for treating 'hypo's' than ordinary soft drink or cordial as only 100mls is needed to raise the BGL. Lucozade® is not carbonated and can be drunk very quickly.

One of the problems that occurs with 'hypo's' is the need for the young person to keep eating until they feel better. Lucozade® is excellent because it works so quickly that it stops the need to keep eating. This is particularly good if a young person is concerned about weight gain. Lucozade® is readily available at supermarkets (Coles, Woolworths) and comes in several flavours and is great to keep in the house for when you need it.

Note: Plain Lucozade® (the original) contains less glucose than the flavoured ones.

Education Requirements

Topic	Content
<i>Hypoglycaemia and Diabetes</i>	<ul style="list-style-type: none">- define hypoglycaemia- explain the age appropriate signs and symptoms- explain the causes- explain appropriate treatment and management- discuss effects of exercise on blood glucose levels (BGL's)- develop strategies to manage and prevent hypo's during sport- discuss strategies to prevent hypoglycaemia- discuss strategies of minimising the impact of hypoglycaemia on weight control
<i>Administration of Glucagon</i>	<ul style="list-style-type: none">- explain the action of glucagon- discuss administration of glucagon- explain the need for a 'responsible' person living in the house-hold to be taught administration of Glucagon

For more detailed information on hypoglycaemia visit the Queensland Government Diabetes Care Advance Website: Module 5: Hypoglycaemia
www.workingwonders.com.au/rchsubsites/diabetes26042005/html/m_05..htm

Visit the Sweet Transition website at www.sweet.org.au

References

1. Ambler, G., Barron, V., May, C., Westman, E., (1998) *Caring for Diabetes in Children and Adolescents*. A Parent's Manual. National Capital Printing, Australia
2. Stillman, J., Lang, E., Grieve, C., (2003) *Paediatric and Adolescent Diabetes Education Manual, For Health Professionals*. Queensland Health, Queensland Government Publication. Module 5