diabetes nsw & act

as1 diabetes

A Fact Sheet for Parents and Carers

Physical Activity

Why be active?
Physical activity helps children to have more energy, maintain a healthy weight and to feel good about themselves. All children should be encouraged to participate in physical activity and sports. All children should be encouraged to participate in some form of physical activity, whether it be organised sports or active play. Physical activity also helps insulin to work better so for children with type 1 diabetes it may help to improve their overall diabetes management.

Can physical activity affect blood glucose levels?

Yes – physical activity can affect blood glucose levels (BGLs) in the following ways:

PHYSICAL ACTIVITY USUALLY LOWERS BGLS DUE TO:

- The muscles using more glucose as energy
- The body becoming more sensitive to insulin

PHYSICAL ACTIVITY SOMETIMES INCREASES BGLS DUE TO:

- The effect of other hormones on the body (this is usually temporary due to stress or excitement)
- The child being unwell

Physical activity affects children differently. However, you and your child will soon get to know their individual response to different activities. The best way to find out how your child responds to different activities is to monitor their blood glucose levels before, during and after physical activity.

How can problems be avoided?

Children with type 1 diabetes are encouraged to be active and plan ahead be encouraged to be active and plan ahead:

1. Checking blood glucose levels a few times (for example every 30 minutes 2 hours before) before you start to exercise tells you whether BGLs are rising or falling and therefore whether you need to think about extra carbohydrates.
2. Think about how long the activity will last. Prolonged periods of activity may require extra carbohydrates and/or reduction in insulin dose (usually BGLs start to drop after 30 minutes of exercise). Discuss this with your diabetes team.
3. Think about how active your child will be, as this will determine how much glucose the muscles use. Discuss this with your diabetes team.
4. Make sure your child keeps hydrated (e.g. 250ml every 30 minutes)
5. Make sure your child carries a hypo kit (e.g. juice and biscuits) when exercising.
6. Make sure your child is supervised by someone who is aware they have type 1 diabetes and can help in case of a hypo.
7. Monitor BGL's after being activity to avoid hypoglycaemia (in particular if your child being active during the afternoon) Test the BGL to decide how much carbohydrate may be needed before the activity starts

Foods to eat before being active

Many carbohydrates are suitable to eat before physical activity to help maintain BGLs.
Some suitable healthier choices include:

Fresh fruit

Canned fruit in natural juice

Dried fruit

Low fat milk*

Low fat yoghurt*

* low fat varieties are recommended for those 2 years and over

Hypoglycaemia (hypo or low blood glucose level)

Despite careful planning, a hypo may still occur, in which case, the child or person with them should know what to do. The child should stop all activity until the hypo has been treated and their BGL has risen to 5 mmol/L or more.

A child with a blood glucose level of 5-7mmol/L will need one serving of carbohydrate before returning to exercise, so this may include a slice of bread or a half of a sandwich, a small tub of youghurt or a piece of fruit. Depending on intensity and duration, a child may need additional carbohydrate.

If a hypo occurs it must be treated **IMMEDIATELY**

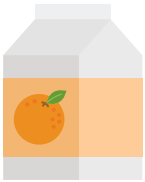
Treatment

MILD TO MODERATE HYPO

If the child is conscious and their BGL is 4mmol/L or less take the following steps:

STEP 1

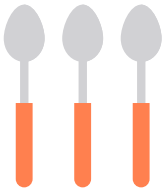
Give any one of the following. You may need to encourage the child to eat or drink



1/2 glass fruit juice

1/2 can soft drink (not diet)

1 Glucose gel



2-3 teaspoons sugar or honey

5-7 Jelly Beans

STEP 2

Follow up with some slow release carbohydrate food such as fruit, a sandwich or biscuits. This will help stabilise blood glucose levels. If a hypo occurs just before a scheduled meal or snack, follow hypo treatment with that meal or snack instead.

If your child uses an insulin pump, Lantus or Levemir, they may not need step 2.

Symptoms usually disappear after 10-15 minutes. However, if the BGL remains low and symptoms are still present, repeat step 1 and stay with the child.

Severe hypo

If the child has a fit or is unconscious, get emergency help fast!

- Do not attempt to give anything by mouth
- Lie the child on their side in the coma or recovery position, keep their airway clear
- Call the ambulance(000) and say in English (if able to) it is a "diabetes emergency" (they will use an interpreter service if there is any difficulty) or if it is available and you are trained to give it, give a Glucagon* injection
- Stay with the child until help arrives

Need an interpreter?

A free telephone interpreter service is available for people who may have difficulty in understanding or speaking English. The Telephone Interpreting Service (TIS) is provided by the government and has access to professional interpreters in almost 2000 languages and dialects and can respond immediately to most requests.

*Glucagon is a hormone that raises the BGL and is injected into the big muscle at the top front of the leg.

Remember that a hypo can occur up to 16 hours after exercise. You can reduce the risk of a delayed hypo by extra blood glucose testing, giving the child extra carbohydrates and/or adjusting the insulin dose.

For more information contact
Diabetes NSW & ACT on 1300 342 238 or visit as1diabetes.com.au

Accessing an interpreter:

1. Simply dial 131 450 for the Telephone Interpreting Service.
2. Explain the purpose for the call e.g. wanting to speak to the National Diabetes Services Scheme helpline
3. The operator will connect you to an interpreter in the required language to an NDSS helpline representative for a three-way conversation.

This free service has been set up by Diabetes Australia and will be promoted with assistance from the Australian Government Department of Health and Ageing.