

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. Physical activity also helps insulin to work better so for children with type 1 diabetes it may help to improve their overall 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 (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.

How can problems be avoided?

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

1. Test the BGL to decide how much carbohydrate may be needed before the activity starts
2. Think about how long the activity will last and how active your child will be. Prolonged periods of activity may require extra carbohydrates and/or a reduction in insulin dose. Discuss this with your diabetes team
3. Make sure your child carries a hypo kit (e.g. juice and biscuits) when exercising
4. Make sure your child is supervised by someone who can help in case of a hypo.

Foods to eat before being active

Many carbohydrates are suitable to eat before physical activity to help maintain BGLs

Some suitable choices include:

Fruit,



Low fat milk/flavoured milk,



Muesli bar. Dried fruit,
Yoghurt, Biscuits

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.

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

Treatment of a hypo

Step 1

Give the child some easily absorbed carbohydrate food that is easy to swallow e.g. one of the following:

- 1/3 -1/2 glass of fruit juice or a small juice in pack or
- 5-7 jellybeans
- Glucose tablets equivalent to 10-15 grams or
- 1/3 can soft drink (not diet) or
- 2-3 teaspoons honey or sugar



Step 2

Follow up with some carbohydrate food such as fruit, a sandwich or biscuits.

If a hypo occurs just before a scheduled meal or snack, follow with that meal or snack instead.

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

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) that 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

**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.

Key points

- Being active is important for good health
- Before being active your child needs to test their BGL and may need extra carbohydrate foods
- While being active your child must be supervised
- After being active a hypo can occur up to 16 hours later

For more information phone 1300 136 588 website: www.diabeteskidsandteens.com.au

Need an interpreter?

A free telephone interpreter service is available for people who may have difficulty in understanding or speaking English. This service is available through the Translating and Interpreting Service (TIS) of the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA).

TIS have access to professional interpreters in almost 2000 languages and dialects and can respond immediately to most requests.

Accessing an interpreter:



1. Simply dial 131 450 for the Telephone Interpreting Service.

2. Explain the purpose for the call e.g. wanting to talk to an educator/dietitian at Diabetes Australia.

3. The operator will connect you to an interpreter in the required language and to a Diabetes Australia health

professional 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.