HYPOGLYCEMIA (Low Blood Glucose Levels)

What is hypoglycemia?

Hypoglycemia, also known as a “hypo” or low blood sugar, occurs when the blood glucose level falls too low. This means below approximately 3.5mmol/l. Hypoglycemia can only occur in someone who is treated with insulin or some diabetes tablets. It cannot occur when treatment is by healthy eating and physical activity alone.

What causes a hypo?

A hypo may occur if there is an imbalance between food, physical activity and medication, for example, if:

- Meals or snacks are missed or delayed
- Extra physical activity occurs
- Alcohol is taken on an empty stomach
- Too much insulin or tablets are taken

What are the symptoms?
The symptoms of a hypo can be divided into early and late symptoms.

Early Symptoms

There are several early symptoms of a hypo, but people usually only experience some of them:

- Sweating
- Shaking
- Dizziness
- Hunger
- Pins
  …around the mouth
- Palpitations
- Headache
Late symptoms

If the hypo is not treated and the blood glucose level continues to fall, late symptoms may occur, and include:

- Double vision
- Unusual behaviour
- Confusion
- Drowsiness which may lead to unconsciousness

For some people who have had diabetes for a long time, the early warning signs may be lost, and therefore the hypo may occur without symptoms. In this situation, hypoglycemia can only be detected by measuring the blood glucose level. Always treat a blood glucose level of less than 3.5mmol/l in someone with diabetes on insulin or diabetes tablets, even if there are no symptoms.

How do I treat a hypo?

Always take some quick acting sugar (approx. 15g of carbohydrate) immediately, such as:

- 150 mL of ordinary lemonade or
- 100 mL of Lucozade or
- 5 jelly beans or
- 3 glucose tablets (or the equivalent to …15g of glucose as indicated on label)

These are all the equivalent of 15 grams of carbohydrate.
Check the blood glucose level and repeat treatment in 5-10 minutes if there is no effect.

Once the blood glucose level starts to rise, always follow with some longer acting carbohydrate food, such as 1 piece of fruit or a sandwich, or the next meal.

Repeat the blood glucose test to ensure that levels have improved.

**What if the person is unconscious?**

Do not give food or drink to an unconscious person.

Roll the person onto their left side and call a doctor or ambulance immediately.

An injection called Glucagon is available and may be given in an emergency by a suitably instructed person.

**Can hypoglycemia be prevented? Yes!**

Regularly eat sufficient carbohydrate foods at meals and snacks eg. bread, pasta, rice, fruit.

Have additional carbohydrate to balance extra physical activity. Extra exertion may require extra carbohydrate before starting and again on completion.

Decrease insulin or tablet dose if appropriate.

Do not drink alcohol without a carbohydrate food.

**Important messages!**

1. Always carry some food to prevent a hypo, and also some quick acting sugar to treat a hypo, just in case.
2. Report to your doctor any unexplained hypoglycemia. Your dose of insulin or diabetes tablets may need to be reduced.
Hypoglycemia occurs when the level of glucose in the blood falls below 3.5mmol/l, usually as a result of an imbalance between food, physical activity and medication.

Early warning signs, such as sweating and shaking, usually occur but may be absent in someone who has had diabetes for a long time. Late symptoms may occur, such as confusion and drowsiness, if the hypo is not treated.

A hypo should be treated immediately with a quick acting sugar, followed by a longer acting carbohydrate food. Continue to monitor blood glucose levels to check for improvement. Remember not to give food or drink to an unconscious person.

Balancing carbohydrate intake and physical activity, adjusting medication as appropriate and not drinking alcohol without food can prevent hypoglycemia.