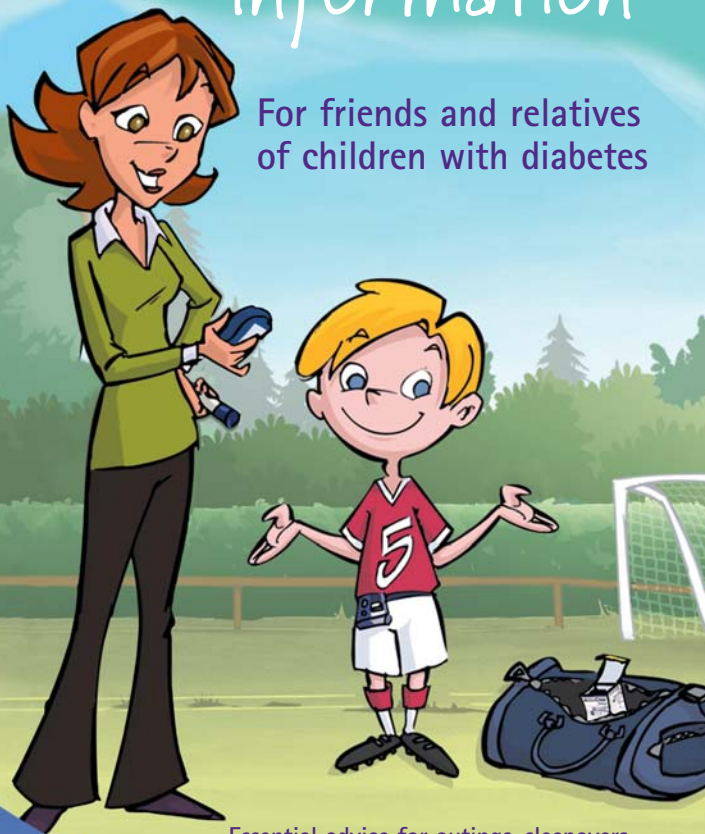


Diabetes Information

For friends and relatives
of children with diabetes



Essential advice for outings, sleepovers
and visits away from home.

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Introduction

The aim of this leaflet is to provide some important information for friends or relatives, who may occasionally be supervising a child's diabetes perhaps for an outing or an overnight stay. As it is not possible to cover all aspects of diabetes care in this short guide, it is essential that you discuss the topics in more detail with the child's parents or guardians.



Treatment of Type 1 Diabetes

Insulin injections are not a cure, but an essential treatment which must never be stopped/omitted. Insulin is injected into the fat tissue on stomach, upper arm or thighs, using very fine needles and injection pens or syringes.

Effect of insulin: Insulin lowers blood glucose (sugar) levels by moving the sugar from the blood into the muscle and brain cells, where it is converted to energy.

Daily Insulin Injections

Insulin doses, injection times and frequency of injections will vary for each child. Please ensure the child's parent or guardian explains how and when the insulin injections need to be administered. Although the child may be confident with his/her injections, adult supervision is required, especially with younger children.

Blood Glucose Tests

Most children will know how and when to measure their blood glucose (sugar) levels using their own meters. You may, however, need to assist younger children. Ask their parent or guardian to explain what normal blood glucose (sugar) levels are for their child.

Always ensure injection and testing equipment is kept near at hand.



what is Diabetes?

There are two main types of diabetes:

Type 1 and Type 2 diabetes.

Type 1 diabetes is the most common cause of diabetes in children and young people. Type 1 diabetes is due to a severe deficiency of insulin and is treated with regular insulin injections, a healthy balanced diet and regular exercise.

Type 2 diabetes is becoming increasingly common in younger people due to lack of physical activity and being overweight. The treatment is either managed through diet and exercise, and sometimes tablets and/or insulin injections.

High blood sugar

(Hyperglycaemia)

Hyperglycaemia is caused by:

- Too much food/not enough insulin
- Common illness or stress.

When blood glucose levels rise, the following symptoms may occur:

- Frequent trips to the toilet
- Excessive thirst
- Change in behaviour: Sleepy, tearful, irritable and angry. If this occurs the parents/guardians should be notified.



Illness

Children with diabetes should never be left unattended when feeling unwell.

During an illness or infection, blood glucose levels are likely to rise. Diabetes control can become less stable for a period of time because more insulin is needed to control blood glucose and children need careful monitoring and treatment with extra insulin at home.

Symptoms

If you notice the following signs you should contact parent/guardian urgently as prompt medical attention is needed:

- Rapid, laboured breathing
- Flushed red cheeks
- Abdominal pain and headache
- Sweet acetone smell to the breath
- Nausea and vomiting
- Severe dehydration.



Low blood sugar

(Hypoglycaemia) 'Hypo'

A blood glucose level below 4 mmol is regarded as being low. The lower the blood glucose, the more the brain gets deprived of energy. This is referred to as hypoglycaemia or 'Hypo'.

A Hypo may occur at any time, but there is a greater chance of it happening with exercise or before snacks and meals. It is important to:

- Avoid delays at meal and snack times
- Allow extra snacks or drinks before exercise and before/after episodes of hypos
- Encourage younger children to eat all carbohydrate requirements at appropriate times.

Causes of Hypo include:

- Too much insulin
- Exercise
- Not enough food (please refer to the section on Food on page 10 of this leaflet).

Hypo must be treated immediately to prevent risk of injury and/or unconsciousness

Symptoms and Treatment of 'Hypos'

Symptoms may progress from mild to severe.

Symptoms of a mild hypo include:

- Sweating
- Paleness
- Trembling
- Hunger
- Weakness
- Changes in mood and behaviour (i.e. crying, argumentative outbursts, aggressiveness, becoming increasingly sleepy)
- Inability to concentrate
- Lack of co-ordination.



In a moderately severe hypo additional symptoms develop, including:

- Inability to express oneself
- Glazed expression
- Being disorientated, unaware or seemingly intoxicated
- Inability to drink and swallow without much encouragement
- Headache, abdominal pains or nausea.

In a severe hypo, the signs have progressed to include:

- Inability to stand
- Inability to respond to instructions
- Extreme disorientation (may be thrashing about)
- Inability to drink and swallow (leading to danger of inhaling food/drinks into lungs)
- Unconsciousness or seizures (jerking or twitching of face, body or limbs).

Treatment is needed promptly to prevent a mild hypo from progressing to a severe hypo.

Treatment of a Mild Hypo

- Give 3-4 dextrose tablets or 100-150ml of sweet drink, e.g. orange juice, cola (not diet)
- Wait 5-10 minutes for the sugar to enter the blood stream. If no response, repeat as above and wait 5 minutes for this to be absorbed.
- When symptoms improve, the next meal or snack (eg; fruit, bread, cereal bar, cereal, milk) should be eaten.

Blood glucose tests are the only way to confirm hypos. If uncertain, test. Blood glucose tests also confirm the return of blood glucose towards normal levels after a hypo.



Treatment of a Moderate Hypo

The child is unable to co-operate but able to swallow and is conscious; USE GLUCOGEL* (1 tube contains 15g of glucose).

- Turn and twist top of tube to open
- Place dispenser tip in the mouth between gum and cheek
- Slowly squeeze in 1 whole tube of Glucogel*, if <5 years of age use 1/2 tube initially
- Massage the outer cheek to disperse the gel
- Wait 5-10 minutes. If the child is still not co-operating give another dose as outlined above
- As symptoms improve the next meal or a snack should be eaten.

IMPORTANT
Glucogel should never be used in people who are unconscious and therefore unable to swallow*



Treatment of a Severe Hypo

The child is unconscious and unable to swallow.

TREATMENT IS URGENT
Never try to give any treatment by mouth to someone who is unconscious

Place the child in recovery position; ensure the airway is open and that he/she is breathing. Stay with him/her while someone calls for an ambulance and informs the parents.

* Glucogel is the registered trademark of British Biocell International Limited

Exercise

The child/adolescent with diabetes should be encouraged to exercise because it:

- Improves fitness, well-being and confidence
- Improves the action of insulin and enhances blood glucose control.

Exercise and Hypoglycaemia

Exercising muscles use more glucose for energy. This may cause the blood glucose level to fall. To prevent hypo, extra carbohydrates should be eaten before exercise begins. For intensive and sustained exercise, extra fast acting carbohydrates may be needed for each half hour of exercise. If the exercise is vigorous or lengthy, extra food – not sugar – is needed after the exercise as well.

Reduction in insulin doses should be considered and planned to help prevent Hypos prior to and/or after vigorous exercise. This would be based on individual need, as recommended by the parent or guardian.

Foods to Prevent Hypo's

In preparing for exercise, there are two options:

- 1 Quickly absorbed carbohydrates such as 100-150 ml of sweet drink (fruit juice, cola etc) or 3-4 dextrose tablets immediately before the exercise
- 2 Slowly absorbed carbohydrates to be eaten 1/2 hour before exercise, such as 2 plain biscuits or 1 cereal bar or a banana or a slice of bread.

REMEMBER:

*Insulin and exercise decrease blood glucose levels
Carbohydrate foods increase blood glucose levels*

Special Precautions for Exercise

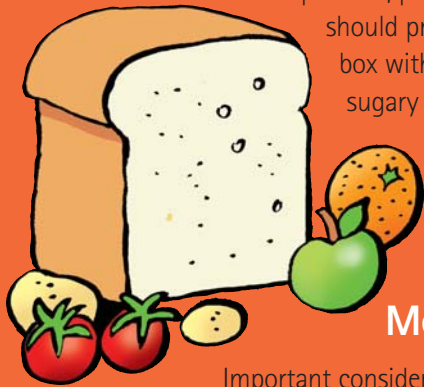
- Food / drinks for the treatment of Hypos should always be available at the place of physical activity and sport and not at some distance.
- Exercise is not recommended during periods of poor diabetes control, when blood glucose levels are high.

Food

A regular intake of slowly absorbed carbohydrate foods (such as potatoes, bread, pasta, rice, fruit, vegetables) is essential in order to avoid Hypos.

The foods recommended for diabetes are based on the same healthy eating principles for all people. No "added sugar" products can be used freely. All regular drinks should be sugar free.

If possible, parents/guardians should provide an emergency box with extra snacks and sugary drinks/dextrose tablets for treating Hypos and to prepare for exercise.



Meals

Important considerations include:

- **Type of food:** Food containing slowly absorbed carbohydrates must be eaten at each meal (See opposite page).
- **Quantities:** The majority of food at each meal should be carbohydrate. Meals should generally never be skipped.
- **Timing of meals** and snacks should be discussed with the parent/guardian. If the interval between meals and snacks is too long an additional snack may have to be eaten to avoid Hypos.

Very young children need supervision at meal and snack times to ensure that meals and snacks are eaten.

Examples of Carbohydrate Foods

The following foods are a good source of slowly absorbed carbohydrates, which maintain blood glucose levels (see also Hypo section)

- Bread, scones, teacakes, cereals
- Milk, low fat flavoured milk (sugar free)
- Crisps, crackers, rice cakes
- Plain biscuits, cereal bars, rice
- Pasta, noodles, chips, potatoes
- Baked beans, vegetables
- Fruit (fresh and dried)
- Sugar free yoghurts.



Handy Check List

Blood glucose testing times

Insulin injection times

Meal time

Snack time

Specific hypo treatment

Our contact numbers
(parent/guardian)

Emergency numbers:

Doctor

Hospital/clinic



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