

Hypoglycaemia

Patient information leaflet

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**If you need this leaflet in a different language or accessible format
please speak to a member of staff who can arrange it for you.**

اگر به این پروشور به زبان دیگر یا در قالب دسترس پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotowuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

Hypoglycaemia (sometimes called a hypo) is a medical term used to define a blood glucose level that has fallen below 3.9mmols/mol.

In children with type 1 diabetes (T1D) hypoglycaemia is generally due to a mismatch between glucose, insulin and activity levels.

What can cause hypoglycaemia?

- Taking too much insulin for the amount of carbohydrates eaten (bolus miscalculation, not eating enough).
- Taking insulin at the wrong time.
- Giving insulin corrections too closely together.
- Missed meals.
- Increased physical activity or exercise (increased use of glucose).
- Environmental factors (hot or cold temperatures).
- Stress or illness.
- Alcohol.

Glucose is the main source of energy for our body and brain. Our body does not like it when the blood glucose level drops too low, it will produce warning signals to alert us that the blood glucose is too low. Signs and symptoms of hypoglycaemia will be different for each child and young person.

Often it is possible to explain why the hypo has happened, but sometimes hypoglycaemia happens unexpectedly.

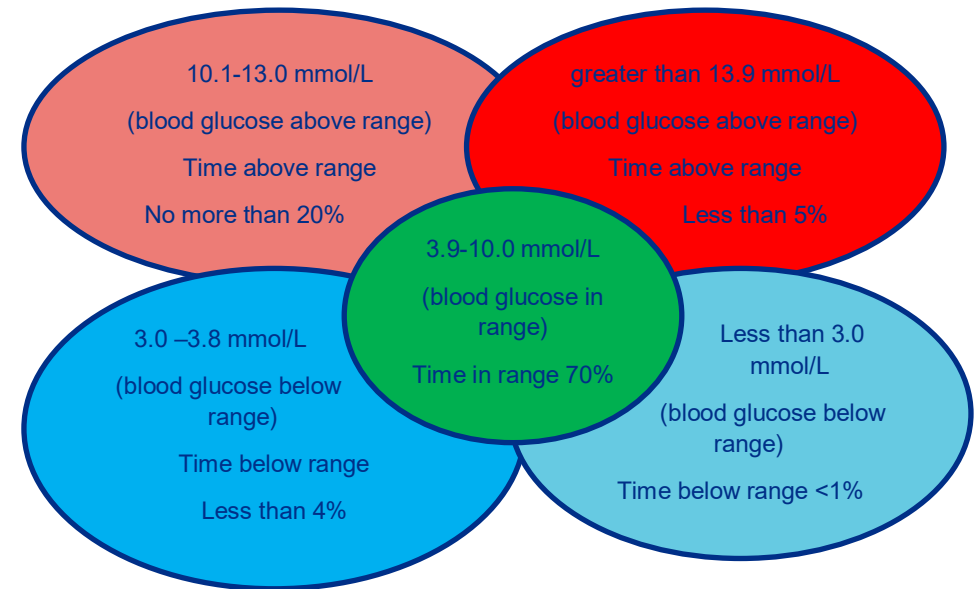
The symptoms of a hypoglycaemic episode can be one or a combination of symptoms and can lead to loss of consciousness and seizures.

Notes

Notes

In somebody who does not have diabetes, the body is able to keep blood glucose levels within a narrow range by constantly readjusting the amount of insulin it is releasing. In children with type 1 diabetes, insulin is injected either via pen or insulin pump, and it is much harder to keep glucose levels in target range.

Time in range (target):



When we have a hypo it causes the activation of our sympathetic nervous system and our body will try to raise the blood glucose by using the glucose stored in our liver and muscles in the form of glycogen.

However you will need fast acting glucose to raise the blood glucose levels back within normal range (3.9-10.0mmols/mol).

Signs and symptoms and how to treat

Signs and symptoms of hypoglycaemia can be divided into mild, moderate and severe.

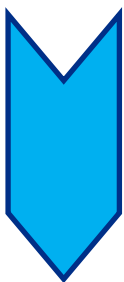
Mild	Moderate	Severe
Pallor Hungry Shakiness Unsteadiness Tired/sleepy Poor concentration Headache Trembling Dizziness	Visual disturbance Aggressive behaviour Irritable or moody Slurred speech Confusion Strange behaviour	Fainting Seizure Drowsiness Loss of consciousness



- Confirm the hypoglycaemic episode.
- Glucose level than less than 3.9mmols.



- Give fast acting carbohydrates as per the table on page 4.



- Re-check glucose level after 15mins
- If glucose level remains less than 3.9mmols then repeat step 1
- Repeat until glucose level is greater than 4.0mmols.

This leaflet has been written to help manage diabetes at home.

Do not rely on this leaflet alone for information about your child's treatment.

If you require any further information, please telephone and ask for your paediatric diabetes specialist nurse.

The diabetes team are here to support you: if you have any questions contact the diabetes team on:

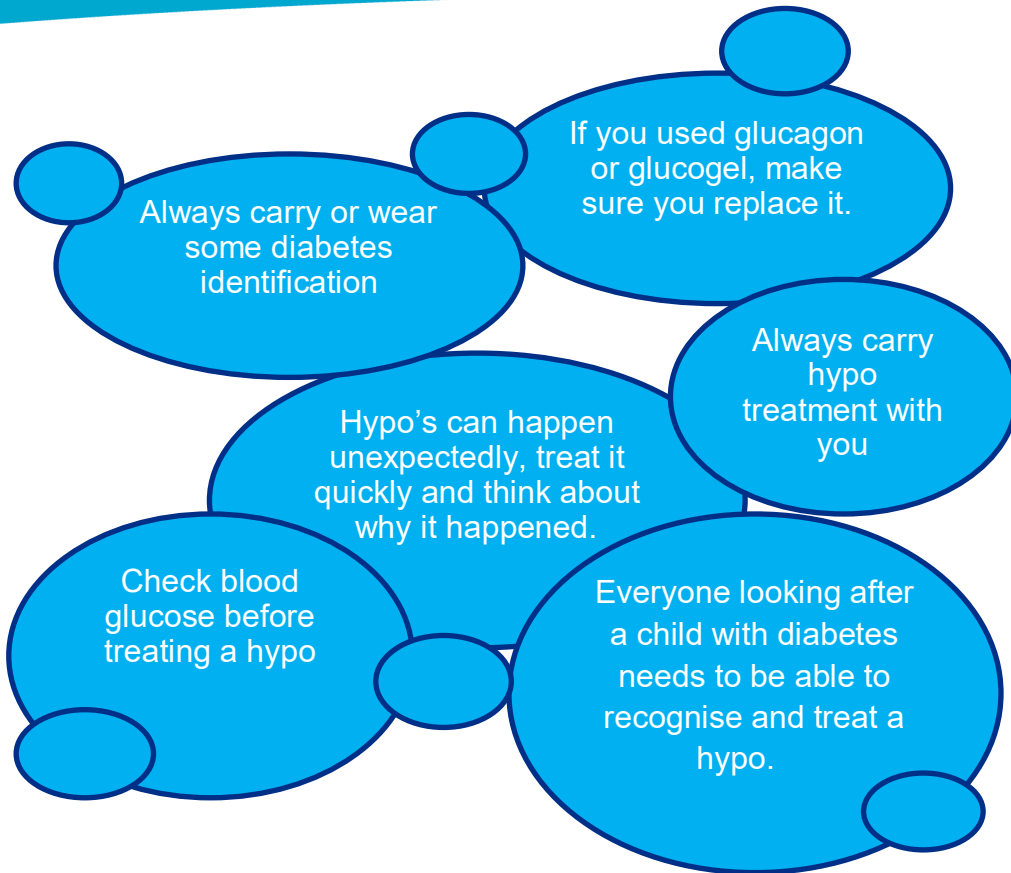
Ormskirk

- Paediatric Diabetes Office:
01695 656 766 or 01695 656 867.
- Children's Ward, Ormskirk Hospital:
01695 656 912.

Whiston

- Whiston Hospital: 0151 430 1404

How to treat hypoglycaemia



Age	CHO Carbs	Tablets	Amount	Liquid	Amount
<2yrs	2 grams	Lucozade or dextrose energy tablets (3 grams per tablet)	1 tablet	Lift glucose shot	10 mls
2-5yrs	5 grams	Lucozade or dextrose energy tablets	2 tablets	Lift glucose shot	20 mls
		Lift glucose tablets (4 grams per tablet)	1 tablet	Lucozade	60 mls
5-10yrs	10 grams	Lucozade or dextrose energy tablets	3 tablets	Lift glucose shot	40 mls
		Lift glucose tablets	2-3 tablets	Lucozade	120 mls
10yrs	15 grams	Lucozade or dextrose energy tablets	5 tablets	Lift glucose shot	60 mls
		Lift glucose tablets	4 tablets	Lucozade	180 mls

If you are on a hybrid close loop system, start by halving the recommended amount of hypo treatment listed above. Your pump will have already suspended insulin and be helping to prevent or treat your hypo.

Exercise

If you have a hypo before you are about to exercise or do increased activity, we advise you to treat the hypo with the recommended amount of glucose and delay exercise until glucose levels are greater than 4.9 mmol/L (trend arrows steady or rising). Please see the exercise leaflet for further information and advice around additional carbohydrate needed to sustain you throughout the activity.

If you have a hypo with a glucose of less than 3.0mmol, or a severe hypo, we recommend that you treat it but avoid exercise for 24 hours after. If you need further advice then contact the diabetes team.

Night time hypos

Some children might have hypoglycaemia overnight without realising it. It is not possible to predict night time hypoglycaemia, based upon blood glucose levels before bed time as glucose levels can change overnight.

The only way to determine night time hypoglycaemia is to check blood glucose with a finger prick test or continuous glucose monitoring system.

Signs of night time hypoglycaemia include

- Nightmares.
- Feeling sick, having headaches in the morning.
- Blood glucose level less than 4 mmol/L in the morning.

If you are having hypos overnight and unsure why, then contact the diabetes team for support and review as you might need changes to your regime.

Severe hypos

A severe hypo causes an inability to swallow, a seizure or an unconscious state. Dial 999 and inform them of the situation.

