

Hypoglycaemia : What treatments to use

If your blood glucose is $<4\text{mmol}$ and you are having a 'hypo', you will need to raise your blood glucose quickly.

Early symptoms include

- Sweating
- Anxiety
- Tremor
- Hunger
- Rapid heart rate

This can progress to

- Slurred speech
- Odd behaviour
- Aggression
- Unconsciousness

Always carry a suitable treatment for your hypos

Food	10g CHO (1CP) = 3mmol glucose rise	15g CHO (1.5 CP) = 5mmol glucose rise
Glucose Tablets	3	5
Lucozade	50ml	80ml
Lucozade Sport	200ml	300ml
Wine Gums	3	5
Jelly Babies	3	5
Coca-Cola	100ml	150ml

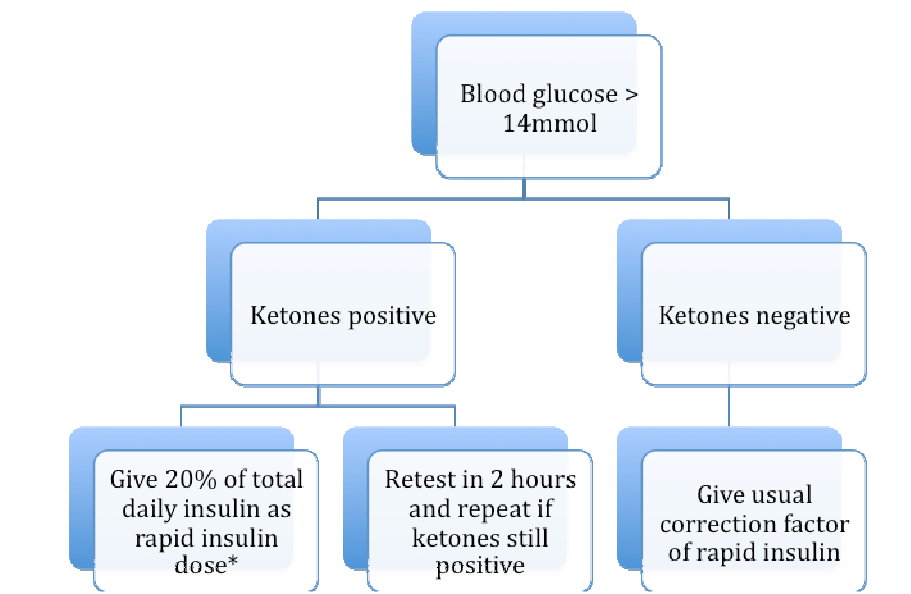
If your blood glucose level is $<4\text{mmol}$ after 5-10mins, repeat one of these treatments.

The University Health Service

Sick Day Rules and High Blood Sugar

- Never stop taking your insulin even if you are unwell and cannot eat.
- Measure your blood sugar at least 4 times a day
- **Do not exercise**
- Drink plenty of water (3-4 litres per day)
- Substitute solid meals for soup, fruit juice or cereals if you don't feel like eating.
- Test your urine or blood for ketones regularly

Check your urine for ketones if your blood sugar is over 14mmol



* If total lantus and novorapid dose is 50u, give 10units of novorapid as an immediate dose.

Correction Factor:

1 unit of rapid acting insulin will bring your blood glucose down by 2-3mmol.

If you are vomiting or don't improve call a doctor.

Type 1 Diabetes and Exercise

An athlete with diabetes should:

- Reduce their insulin dose prior to exercise and avoid injecting into the exercising limb.
- Eat enough carbohydrate (CHO) prior to and during exercise..
- Avoid exercise when blood glucose levels are greater than 14 mmol/L and ketones are present.
- Drink plenty of fluids.
- Reduce insulin doses after exercise and continue to eat/drink CHO to avoid hypos.
- Have hypo treatments to hand.
- Don't exercise alone, or carry a mobile if you do.

Before exercise: Measure blood glucose. If <7 mmol ingest extra 15g of CHO.

If >14 mmol check ketones. If positive avoid exercise and treat. If negative avoid CHO replacement during exercise until levels have fallen.

Insulin: reduce overnight insulin dose for morning exercise.

Reduce pre-exercise bolus doses by:

25% for 30mins moderate exercise

50% for 60mins moderate exercise

75% for 60 mins high intensity exercise

Give an extra CHO meal /snack for unplanned exercise where insulin has already been given.

During exercise:

Check blood glucose every 30 mins

Take an extra 30-60g of CHO for each hour of exercise (0.5-1 bottle of lucozade)

After exercise:

Check blood glucose immediately and regularly for the next few hours.

Consider reducing post -exercise insulin to avoid hypos (particularly pre-bed lantus/levemir insulin if late afternoon or evening exercise).

Avoid alcohol and have a CHO rich meal.

Remember:

Aerobic exercise reduces blood sugar.

Anaerobic exercise can increase it. (Sprinting, weight training).

If you are unsure how to proceed with your training consult a diabetic dietician or your specialist team.

Useful website: www.runsweet.com

Driving and Type 1 Diabetes

General rules for driving if you are prescribed insulin:

Carry your blood sugar monitor and hypo treatment with you at all times and check your blood glucose before driving and every 2 hours during the journey.

If your BG is <4 mmol do not drive.

If your BG is $>4 < 5$ have a snack before commencing driving.

If your BG falls below 4 whilst on your journey you must treat your hypo. You are not allowed to resume driving again for 45 minutes after your blood glucose has returned to normal.

The current DVLA guidance has altered slightly.

You must inform the DVLA if you have had a hypo requiring assistance of another in the last 12 months.

<http://www.dft.gov.uk/dvla/drivers.aspx>