

Patient information

Diabetes and illness management in young people

NEVER STOP INSULIN without talking to the children's diabetes team

TEST BLOOD SUGARS FREQUENTLY: 1 - 2 hourly and act on results

TEST BLOOD FOR KETONES: If results are above 14 mmol/l or **if the young person is unwell.**

- Blood ketone levels up to 0.6 are normal
- If blood ketones are above 0.6 continue to test 1 - 2 hourly
- If they are over 1.0 contact the children's diabetes team
- If blood ketones are 3.0 or higher your child must be seen at the hospital for assessment

Remember: VOMITING and Ketones may be the first sign of diabetic ketoacidosis (DKA).

OBSERVE FOR THE WARNING SIGNS of DKA – if vomiting, severe thirst, tummy ache, deep rapid breathing or drowsiness is noticed seek **URGENT** advice.

TELEPHONE 01284 713612 or 01284 713311 - week days 9.00am to 5.00pm. **If no answer** or it is out of hours contact **01284 713000** and ask for the member of the children's diabetes team on call.

Young people with diabetes do not get more illnesses than other people but coughs, colds, 'flu' or infections may upset blood sugar control.

NEVER STOP INSULIN: Continue at all times especially during illness.

Part of the body's natural response to the stress of an illness (such as an infection or injury) is to make more sugar. This may lead to very high blood sugar levels and a condition known as diabetic ketoacidosis (**DKA**).

Ketones

If the blood glucose is continuously more than 14 mmol/l, or if your child is vomiting or feeling unwell, test their blood for ketones. Ketones are acid substances made when your body is short of insulin. If large amounts of ketones are untreated this can lead to DKA which can be extremely dangerous and ultimately life threatening.

Blood glucose levels will return to your usual range once you are better. It is important to continue frequent testing of blood sugars and ketones until blood sugars are within normal range (**4 - 7 mmols/l**).

How to interpret blood ketone levels

< 0.6

Under 0.6 mmol/L – normal; consider rechecking blood ketone levels in 1-2 hours if blood glucose remains elevated, above 13.9 mmol/L.

0.6-1.5

0.6-1.5 mmol/L – indicates a need for extra insulin. It is important the patient calls or follows the rules provided by their diabetes health care team and checks their blood glucose and blood ketone levels again in 1-2 hours.

>1.5

Over 1.5 mmol/L – indicates risk of diabetic ketoacidosis. Patients should call their health care team **IMMEDIATELY**.

Advice on increasing insulin

If your blood glucose reading is high and you have ketones in your blood you will need extra insulin in the form of Novorapid, Humalog, Fiasp or Apidra (fast acting insulin) as well as your usual dose of insulin.

Use the correction doses of Novorapid, Humalog, Fiasp or Apidra based on the blood sugar levels. If you use a bolus calculator or app, this will calculate the correction dose for you. If you are unsure of how much insulin to use, contact the diabetes team for advice.

Eating

During periods of illness you may lose your appetite or be vomiting. If you cannot eat and drink as normal and your blood sugar is dropping, it is important to make sure you give your body some sort of energy. Having 20g of carbohydrate regularly should prevent the build-up of ketones, made by the body, due to starvation.

If you can manage food, try **one** from this list:

- A slice of toast with 2 teaspoons of full sugar jam
- 2 scoops of ice cream
- 200ml of milk and 2 rich tea biscuits or 2 crackers
- A full sugar fruit yoghurt (125g weight)
- 100ml fruit juice and 2 rich tea biscuits or 2 crackers

If you are too ill to eat at all, sip a small sugary drink every two hours, to provide 20g carbohydrate.

- 200ml Lucozade®
- 200ml fruit juice
- 210ml full sugar fizzy drink

Or suck glucose tablets or sweets:

- 6 dextrose tablets or 5 glucotabs
- 4 jelly babies
- 2 Chupa Chups® lolly pops

Drinking

Whatever you manage to eat, it is important to keep drinking plenty of sugar-free fluids throughout the day. This will prevent you getting dehydrated.

Comments

- Check your supplies regularly
- Make sure you have blood ketone test strips, Novorapid, Fiasp, Apidra or Humalog insulin in a pen device with needles and they have not gone past their expiry date.