

Illness and Sick Day Rules for Type 1 Diabetes

**Remember - Never stop taking your insulin.
Check blood glucose regularly.
Test for ketones.
Know when and where to seek advice.**

Illness is a stress on the body. You become more resistant to insulin and blood glucose levels rise (hyperglycaemia). You may need to take more insulin, drink more fluids and check your blood glucose more frequently than you usually do. By doing this you may help stop your body developing ketones. Ketones are produced when there is not enough insulin in your body. The aim is to prevent ketones rising in your body. A person with type 1 diabetes is at risk of developing ketones which may lead to diabetic Ketoacidosis (DKA). This is a serious condition which can be life threatening and require hospital treatment.

Symptoms of Hyperglycaemia

- Thirst
- Passing more urine than normal
- Tiredness
- Dry mouth

Sick Day Rules

- When you are unwell you need to drink at least 100-200mls of sugar free fluids (approximately one glass) every hour as this will help prevent you becoming dehydrated.
- Even if your blood glucose is high continue eating as normal if you feel like it and ensure you take your usual insulin dose.
- If you are unable to take solid foods try to take small amounts of liquid carbohydrates every hour if possible. Examples below:

Milk 1 cup (300mls)
Lucozade 180mls
Ice-cream 2 scoops
Yoghurt 125gram pot

Unsweetened Fruit Juice 1 glass (150mls)
Cola/Lemonade (not diet) 150mls
Jelly (not sugar-free) 2 tablespoons

Blood glucose and ketone monitoring

- Monitor blood glucose levels 2 - 4 hourly during illness. The results will help in adjusting your insulin.
- Ensure you have ketone test strips in date and they are on your repeat prescription.
- Always test for ketones during illness. If you have ketones in your blood or urine it is a sign that your body is lacking insulin and that you need to increase your insulin dose.
- If your blood glucose is above 14mmol/L recheck your blood glucose within 4hours and if it remains above 14mmol/L check for blood ketones / urinary ketones.
- You will need to continue checking your ketones whilst your blood glucose is above 14mmol/L, this includes OVERNIGHT.

Understanding ketone results during illness and managing insulin

Urine ketone level	Blood ketone level	Action
Negative	Less than 0.6 mmol/L	<p>This is within the normal range. During illness test again in 4 hours to re-assess</p> <p style="text-align: center;">Never stop taking your insulin</p>
Trace	0.6 - 1.5 mmol/L	<p>Give your usual insulin with food.</p> <p>Use your usual correction insulin dose every 4 hours if blood glucose is elevated.</p> <p>If on Mixed insulin you may need to increase your usual dose</p> <p>If you require advice contact Diabetes Team* or NHS 24.</p>
Moderate	1.5 – 3.0 mmol/L	<p>Give your usual dose of insulin for food.</p> <p>Your usual corrective insulin dose may not be enough to reduce your ketones.</p> <p>You need to calculate your correction dose as 10% of your total daily insulin dose (quick plus long acting insulin or total mixed insulin dose).</p> <p>This 10% correction dose can be repeated every 2 hours if ketones remain 1.5 - 3.0mmol/L.</p> <p>If ketones remain above 1.5mmols after 4hours contact Diabetes Team* or NHS 24 for advice</p>
Large	More than 3.0 mmol/L	<p>Give 10% of your total daily insulin as a correction dose (quick plus long acting insulin or total mixed insulin dose) and <u>contact</u> Diabetes Team* or NHS 24 for urgent specialist advice.</p>

Hospital admission is required if any of the following happen:

- If you can't swallow or keep fluids down
- You have persistent vomiting and abdominal pain
- Persistent high blood glucose levels with high levels of ketones
- Breathlessness

Diabetes Team Contacts

RIE Diabetes Unit 0131 242 1471 Mon – Fri 08.30 - 17.00

Diabetes Doctor 0131 536 1000

**Mon – Fri 09.00 – 20.00
Sat – Sun 09.00 – 17.00**

NHS 24 - 111