

## Sick day rules: how to manage Type 2 diabetes if you become unwell with coronavirus and what to do with your medication

This advice is intended for the following people with Type 2 diabetes:

**People who take tablets, insulin and other injectable medications such as GLP1 therapy.**

**Please ensure you have access to the following at all times, not just when you become unwell:**

- at least 1-month supply of all your medicines
- If you normally check your blood sugar levels at home, ensure you have access to a blood glucose meter with at least 1 month supply of test strips and lancets
- If you have been advised to check ketones, please ensure you have access to a ketone testing system – either urine or blood.

**Contact your local community pharmacist via telephone or virtually (where you can do so) and request a delivery of medication to assist self-isolation**

### **Becoming Unwell**

If you develop Coronavirus symptoms or any other illness, it is likely to affect your blood sugars. While you are unwell it is VERY likely that your blood glucose will increase even if you are eating less than usual.

**If you already have access to blood glucose monitoring, increase the frequency of checking your blood glucose every 2 to 4 hours.**

Ensure you:

- **Stay hydrated:** drink at least ½ cup (100mls) of water (you can also drink any other sugar free drink) every hour.
- **Do not fast:** maintain carbohydrate intake
- **If you are unable to eat or drink or are vomiting, replace meals with sugary fluids or ice cream**
- **Never stop insulin:** you may have to adjust the dose
- You may need to stop taking some medications during the period you are unwell (see below for specific advice)
- If you are worried about other symptoms not related to your diabetes, please seek medical advice from NHS 111 in the first instance

**Seek medical attention if you are unable to control your blood glucose (persistently over 18mmol/L) or unable to stay hydrated due to vomiting.**

You may find that because of reduced appetite or inability to eat your usual meals, oral hypoglycaemic agents such as (gliclazide) will need to be stopped during the period you are unwell and this may cause your blood sugar to go up.

**If you have access to blood glucose monitoring, increase the frequency of monitoring to 2 - 4 hourly.**

**If you DO NOT have access to blood glucose monitoring, look out for symptoms of high blood glucose. These include thirst, passing more urine than usual and tiredness. Seek medical advice if you have these symptoms.**

**Medications you need to stop them when you are sick.**

Restart when you are well (normally after 24 to 48 hours of eating and drinking normally). When you restart your medicine, just take them as normal.

**Metformin** – dehydration can make it more likely that you will develop a serious side effect called lactic acidosis

**Sulfonylureas** – if you are unable to eat or drink, it will be more likely that you develop low blood glucose (hypos) • **Examples:** names ending with ‘ide’ such as gliclazide, glibenamide, glipizide.

**If you are eating and drinking normally and blood sugars are high continue to take Sulfonylureas.**

**GLP-1 analogues** –dehydration can make it more likely that you will develop a serious side effect.

• **Examples:** names ending with ‘tide’ such as exenatide, dulaglutide, liraglutide, lixisenatide and semaglutide

**SGLT2 inhibitors** – dehydration can make it more likely that you will develop a serious side effect called ketoacidosis. • **Examples:** names ending with ‘flozin’ such as canagliflozin, dapagliflozin, empagliflozin and ertugliflozin

**Treating low blood glucose**

**If your blood glucose is less than 4mmol/L (hypo) on oral therapy only:**

treat with eating or drinking **15-20g fast acting** carbohydrate.

Examples of **fast acting** carbohydrate include:

- 5 Dextrose tablets • 5 jelly babies/jelly beans • Half a can of sugary drink (non-diet) • Fruit juice 200mls (non-diet) • Ice cream 1 large scoop • 5 spoonful’s sugar in warm water

After treating the hypo, try to eat **15-20g of slower acting** carbohydrate.

Examples of **slower acting** carbohydrate include:

- Sandwich • Piece of fruit • Bowl of cereal • Glass of milk 200mls

**Seek medical attention if low blood glucose levels persist despite changes and you are unable to maintain hydrated or take carbohydrates due to vomiting.**

If you are **taking insulin** and experiencing hypoglycaemia reduce your daily dose by 20%, if experiencing regular hypoglycaemia seek medical advice.

**Treating raised blood glucose levels**

If your blood glucose levels are raised persistently above **18 mmol/L on oral therapies** seek medical attention.

**If glucose levels are raised, check your blood sugar more regularly every four hours drink plenty of sugar free fluids and seek advice regarding titration of medication whilst you are ill.**

**Raised blood glucose and on Insulin**

If you are taking **insulin** and able to eat and drink but glucose levels are raised titrate insulin as follows:

Blood glucose	Increase each insulin dose by:*
13-17mmol/L	2 units
17-22mmol/L	4 units
>22mmol/L	6 units

\*If you are on a mixed insulin and have had to increase the dose according to titration guidance, eat or drink sufficient carbohydrates to prevent low blood glucose (hypos).

**Seek medical attention if low blood glucose levels persist despite changes and you are unable to maintain hydrated or take carbohydrates due to vomiting.**

**If you are taking any of the following medications, you need to stop them when you are sick.**

**ACE inhibitors** – these medicines are used for heart conditions, high blood pressure and for kidney protection. If you are dehydrated, these medicines can stop your kidneys working properly.

- **Examples:** names ending in 'pril' such as ramipril, lisinopril, perindopril, captopril

**ARBs** - these medicines are used for heart conditions, high blood pressure and for kidney protection. If you are dehydrated, these medicines can stop your kidneys working properly.

- **Examples:** names ending in 'sartan' such as candesartan, irbesartan, losartan, valsartan

**Diuretics** – these medicines are used for excess fluid and high blood pressure and are sometimes called 'water pills'. These medicines can make dehydration more likely.

- **Examples** include bendroflumethiazide, furosemide, indapamide, bumetanide.
- If you are taking more than two tablets a day of either bumetanide or furosemide, please seek medical advice before stopping

**NSAIDs** – these are anti-inflammatory pain killers. If you are dehydrated, these medicines can stop your kidneys working properly. • **Examples** include ibuprofen, naproxen

### **Key Points**

- If you are unwell and have access to blood glucose monitoring, **increase the frequency of checking to 2-4 hourly**

- If you are unwell and do not have access to blood glucose monitoring, **look for symptoms of high blood glucose** and seek medical advice if you have these

- **Never stop insulin**
- **Seek medical attention if you are unable to maintain hydrated or take carbohydrates due to vomiting**
- **Seek medical attention if you have persistently high or low blood glucose readings despite altering your medications**
- If you have altered your medication doses, remember to change them back to their usual doses gradually when you have recovered.

### **Symptoms of high blood sugar (hyperglycaemia) include:**

- Increased thirst and a dry mouth
- needing to pee frequently
- tiredness
- blurred vision
- unintentional weight loss
- recurrent infections, such as thrush, bladder infections (cystitis) and skin infections
- tummy pain
- feeling or being sick
- breath that smells fruity

Ref: <https://www.nhs.uk/conditions/high-blood-sugar-hyperglycaemia/>

### **Website References:**

Diabetes UK: [https://www.diabetes.org.uk/about\\_us/news/coronavirus](https://www.diabetes.org.uk/about_us/news/coronavirus)

NHS: <https://www.nhs.uk/conditions/coronavirus-covid-19/>  
<https://www.england.nhs.uk/london/london-clinical-networks/our-networks/diabetes/diabetes-covid-19-key-information/>

[Patient Leaflet Trend UK](http://trend-uk.org/resources/) also available from: <http://trend-uk.org/resources/>