



Sick day guidance for type 2 diabetes

This leaflet explains what to do if you are sick and have Type 2 Diabetes.

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If you have diabetes, it is very important that you know what to do when you are ill.

When you are ill your body becomes much more resistant to the insulin you produce or take by injection. This means that your blood glucose levels can rise and it is likely that you will need to adjust your medication. You therefore need to monitor your blood glucose levels very carefully. We refer to this as 'sick day guidance'.

What could cause my blood glucose levels to rise?

Illnesses and other conditions that could increase your blood glucose levels include:

- Cold, flu or similar virus
- Stomach upset
- Sore throat
- Urinary infection
- Chest infection
- Abscess
- Broken bone
- Taking a steroid tablet or injections for another condition

Symptoms of high blood glucose

- Increased thirst
- Dry mouth
- Passing a lot of urine
- Tiredness and lethargy



Managing your diabetes when you are ill

If you manage your diabetes with diet

- If you manage your diabetes with diet, you follow general advice around rehydration but will not be at risk of hypoglycaemia (low blood sugar). There is no need to monitor blood glucose or take extra carbohydrate. If you develop any worrying symptoms, contact your healthcare team.

If you manage your diabetes with tablets

- You should continue to take them except under circumstances described below.
- If you have a meter, you should test your blood glucose levels at least four times a day.
- Drink at least 2.5 litres of sugar-free liquid a day, especially water.
- Try to eat your normal diet. If you have lost your appetite, you do not need to eat until you feel well enough to try, but keep sipping fluids to prevent dehydration. You should drink at least 100 ml per hour.

If you are taking metformin and/or an SGLT2 inhibitor (a drug ending with '-ozin') but you have sickness and/or diarrhoea, you should not take these drugs until you start eating and drinking normally again. If you have problems with your kidney function you will need to arrange a blood test with your GP to confirm that it is safe to start taking the medication again.

If you manage your diabetes with non-insulin injections

If you have non-insulin injections such as Exenatide (Byetta) or Liraglutide (Victoza), Dulaglutide (Trulicity) you should continue to inject as normal, but it is important that you eat something after your injection.

If you have diarrhoea and/or sickness you should not take these drugs until you start eating and drinking normally again. If you have problems with your kidney function you will need to arrange a blood test with your GP to confirm that it is safe to start taking the medication again.

Unfortunately, there is no scope to increase your dose with this type of medication. If your blood glucose levels remain high for a few days or if you are concerned, consult your GP or diabetes care team, or call NHS 111 (England) / NHS 24 (Scotland).



If you manage your diabetes with insulin

Your blood glucose may rise above normal levels even if you are not able to eat your normal meals, so you should never stop taking your insulin. Follow these guidelines until you start to feel better:

- You should test your blood glucose levels every two to four hours and adjust your insulin as required (see below).
- To prevent dehydration try to drink two to three litres of sugar-free liquids per day, especially plain water. This is approximately one glass every hour.
- If you are vomiting or are unable to eat solid carbohydrate foods you can replace these with liquid carbohydrates, eg. Lucozade, fruit juice, normal Coke.
- If you are not vomiting but have lost your appetite, try milky drinks, ordinary fruit jelly (not sugar free), ice cream or custard.

Each of these contains approximately 10 grams of carbohydrate:

Food	Quantity
Milk	1 cup (200ml)
Fruit juice (unsweetened)	1 small glass (100 ml)
Lucozade	1 small glass (110 ml)
Coke (full-sugar version)	1 glass (100 ml)
Lemonade (full-sugar version)	1 glass (200 ml)
Ice cream	1 scoop (50 g)
Jelly (normal fruit-flavoured)	2 tablespoons (65 g)
Yoghurt (fruit, low calorie)	1 small carton (120 g)
Yoghurt (plain)	1 small carton (120 g)

- You should rest as much as possible.
- As you start to feel better, reintroduce solid foods and stop taking the sugary drinks.

Adjusting your insulin if your blood glucose levels are HIGH

- If your blood glucose level is less than 10 mmol/L take your usual insulin dose
- If your blood glucose level is persistently higher than this, you will have to take extra insulin, as per examples below

These instructions are given as examples and you should primarily follow your healthcare team's advice.



Adjusting your insulin dose for people taking TWICE DAILY MIXED INSULIN

If you use one of the twice daily insulins below, then consider this advice:

- Humulin M3
- Insuman Comb 15
- Insuman Comb 25
- Insuman Comb 50
- Novomix 30
- Humalog mix 50
- Humalog mix 25

You should reflect on the previous 24 hours glucose levels before making adjustments to the insulin dose. If you have a high blood glucose level, then you should adjust the dose at the time of day **BEFORE** the high blood glucose level.

Remember: Morning insulin doses will impact on pre-lunch and pre-dinner blood glucose levels, and evening insulin doses will impact on bedtime and pre-breakfast blood glucose levels.

However, when you are ill, it may be appropriate to take some extra insulin at the time of a very high blood glucose level.

NOTE: You will need to go back to your usual insulin doses once you are better
IF YOU ARE UNSURE, CONSULT YOUR HEALTHCARE TEAM.

Table 1

Adjusting your insulin dose for people taking TWICE DAILY MIXED INSULIN

Blood glucose level	What to do
10–16.9	take an extra 2–4 units (but don't increase your normal dose more than an extra 10% without advice)
17–28	take an extra 4–6 units (but don't increase your normal dose more than an extra 15% without advice)
28 or more	take an extra 4–8 units & consult your diabetes team (but don't increase your normal dose more than an extra 20% without advice)



Adjusting your insulin dose for people taking 3–5 times a day insulin using BOTH LONG- AND QUICK-ACTING INSULIN

Use this advice if you take separate:

- long-acting insulin (e.g. Lantus, Abasaglar, Insulatard, Humulin I, Toujeo, Degludec)

AND

- quick-acting insulin (e.g. Novorapid, Fiasp, Humalog, Apidra, Humulin S) with meals

Principles:

- If blood glucose is over 10 mmol/L, take an extra STAT dose of insulin using your QUICK-ACTING INSULIN as per the table below
- If you are about to eat, then just add this extra amount to your usual mealtime dose (If you already use a mealtime calculation that takes into account your current glucose level then keep using that rather than the table below)
- Repeat STAT doses at intervals of 2–4 hours if needed
- Do not take another insulin dose within 2 hours unless advised by a healthcare professional

Follow the advice below until your blood glucose levels settle below 10 mmol/L.

Table 2

Adjusting your insulin dose for QUICK-ACTING INSULIN

Blood glucose level	What to do
10–16.9	take an extra 2–4 units (but don't increase your normal dose more than an extra 10% without advice)
17–28	take an extra 3–6 units (but don't increase your normal dose more than an extra 15% without advice)
28 or more	take an extra 4–8 units (but don't increase your normal dose more than an extra 20% without advice)

Adjusting your insulin dose for people taking ONCE A DAY INSULIN

Use this advice if you take long-acting insulin once daily (e.g. Lantus, Abasaglar, Insulatard, Humulin I, Toujeo, Degludec).

If blood glucose is over 10 mmol/L, then it may be appropriate to increase your insulin doses in a similar way to the above tables, but we recommend you discuss this first with your healthcare provider. They may want you to increase blood glucose monitoring and may want to change your insulin type.

NOTE: You will need to go back to your usual insulin doses once you are better



Hypoglycaemia

Very occasionally your blood glucose levels may fall when you are ill, and you may experience a hypoglycaemic episode (a 'hypo') (i.e. blood glucose level below 4 mmol/L).

You can find further information, including how to treat hypos, at [Hypoglycaemia](#) or you can talk to your diabetes care team.

If you start to experience a number of episodes of hypoglycaemia (low blood glucose levels) you may need to REDUCE your insulin or tablets you are taking. Get in touch with your healthcare team to discuss as soon as possible.

It is important to remember that when you are ill, you must monitor your blood glucose levels closely

When should I contact my diabetes care team?

You should talk to your diabetes care team or GP urgently if any of the following apply:

- If you continue to vomit and/or are unable to keep anything down
- If you have missed more than one meal
- If your symptoms do not improve within 24–48 hours
- If you are worried about any aspect of your illness
- If you need help with altering your insulin doses

