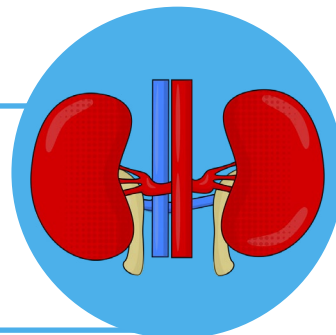


# SGLT-2 Inhibitors

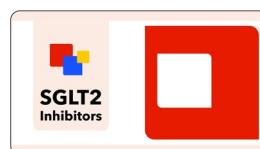


## How Do They Work?

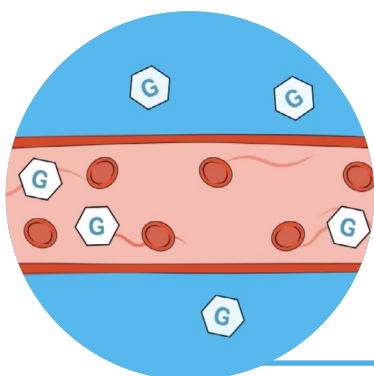
SGLT-2 (sodium-glucose transporter 2) is a type of pump inside the kidneys that works all the time to keep the glucose in the blood and prevent the extra glucose from 'leaking' out in the urine.



This group of medicines are called SGLT-2 inhibitors because they block the action of that pump.



As a result, your kidneys are allowed to clear out the extra glucose in your blood, which helps bring the blood glucose levels back to range.



It is useful to know that these medicines only regulate the 'extra' glucose in the body. In other words, they won't allow your kidneys to clear out too much glucose, so they can't cause hypoglycaemia (low blood glucose) as a side effect.

## What Are the Benefits?

**SGLT-2 inhibitors can:**

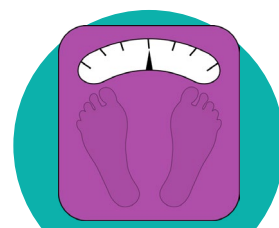
Lower your blood glucose levels to be within range.



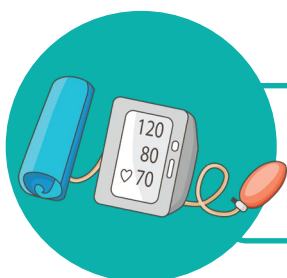
(If you are taking insulin), help reduce the daily doses of insulin that you need to inject.



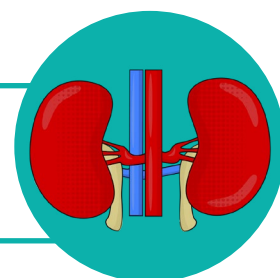
Help you reduce your body weight.



Slightly reduce your blood pressure if it is too high.



Help protect the kidneys from long-term complication of diabetes.



## What Form Do They Come In?

These medications only come in the form of tablets that are taken once a day.

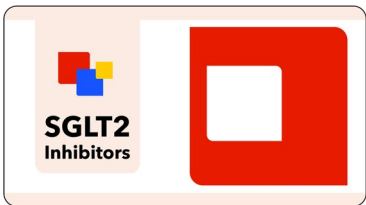
You can choose the time of day that suits you best, and it doesn't have to be with food.



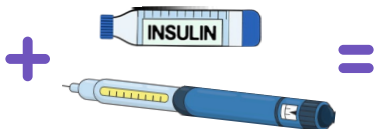
Your team will recommend the right dose for you, which will be the same dose you take every day.

### Tablets

## Can They Cause Hypos (Low Blood Glucose)?



**No**  
SGLT-2 inhibitors work to make the kidneys excrete only the extra glucose in the body.  
They can't make the blood glucose drop below a safe range, so they can't cause hypos on their own.



If you are taking it with another medication that can cause hypos (such as insulin), there may be an increased risk of hypos, but your team will discuss with you how to manage this safely.

## Are There Any Risks or Side Effects?

SGLT-2 inhibitors are well tolerated by most young people. However, as with all medications, there are some potential side effects.

The main side effect of these medications is urinary tract infections or thrush (more likely in girls). It is important to maintain good personal hygiene and keep that area clean and dry.



Severe genital infections are very rare.

If you have pain, tenderness, or redness in the genital area, please see your doctor straight away.

Some people experience dehydration. Try to drink plenty of water throughout the day to prevent this.



## Diabetic Ketoacidosis

SGLT-2 inhibitors can also cause a **very rare complication** called diabetic ketoacidosis. This is a result of too much acid build-up in the blood, and can happen even when your blood glucose level is within range.

### Symptoms of Diabetic Ketoacidosis

Stomache Pains  
or Cramps

Fast Breathing

Feeling Sick or  
Getting Sick

Dizziness, Drowsiness  
or Confusion

### Diabetic ketoacidosis is very rare!

However, if you start to have the symptoms above, or if you feel unwell, you should measure your blood ketone levels. If the levels are 0.6 mmol/L or above, you should stop taking your SGLT-2 inhibitor and contact your healthcare team immediately. If you can't reach your team, go to your nearest emergency department or call 999 for an ambulance straight away. If you are experiencing these symptoms but do not have a ketone meter at home, you should go to your nearest emergency department.

### Sick Day Rules

You should temporarily stop taking SGLT-2 inhibitors if you are feeling unwell.  
For example if you:

Have a high temperature  
(above 38.5°C)

Have a severe infection that  
needs antibiotic treatment

Have severe  
diarrhoea or vomiting

Are dehydrated (signs of this include being really thirsty, a dry mouth, going to the toilet less than four times a day, or dark yellow wee)

You can then start taking your SGLT-2 inhibitor again 24 to 48 hours after you feel better.

During extreme illness, diabetic ketoacidosis caused by SGLT-2 inhibitors can be more likely, and can make the illness worse.



Although it is still very rare, it is important to know the symptoms of ketoacidosis and check your ketone levels if you feel unwell.

### Operations or Procedures Needing an Anesthetic

If you are having an operation or a general anaesthetic (medicines that are used to send you to sleep during an operation), you should let your healthcare team know in advance in case you need to stop taking your medication.

You should also let the anesthetist know you are taking SGLT-2.