

Patient information: Sodium-glucose cotransporter-2 inhibitors (SGLT2i)

Medication names

- Canagliflozin (Invokana®)
- Dapagliflozin (Forxiga®)
- Empagliflozin (Jardiance®)

How can this medication help?

- Reduces your A1c and your weight (which can help with blood pressure and pain)
- May reduce your chances of having a heart attack or stroke, your risk of kidney disease and risk of hospitalizations for heart failure
- There is a low risk of hypoglycemia compared to many other diabetes medications

What else should I know?

- This medication is likely NOT safe for patients who follow a restrictive carbohydrate (e.g., keto) diet.
- It is important to STOP taking this medication in any of the following situations:
 - 3 days before major surgery
 - You have diarrhea or are vomiting and unable to eat or drink as usual
 - You have a major illness
 - Check with your doctor about when it is safe to restart the medication

Who should NOT take this medication?

You should not start taking this medication if you have advanced kidney disease (eGFR less than 30). Check with your doctor if you have questions.

Common side effects

Increased urination:

- Take in the morning if going to the bathroom frequently at night is not convenient
- Make sure to drink plenty of fluids

Yeast, genital, or bladder infections (UTIs):

- Take extra care with genital hygiene
- Report any discharge, painful urination, or other infection symptoms to your doctor

Low blood pressure:

- Avoid standing quickly from seated or laying down positions
- Check your blood pressure as recommended by your doctor

Rare side effects to be aware of

Acute kidney injury:

- While this medication is good for your kidneys most of the time – it can be hard on your kidneys in rare cases (especially if you take it while you are dehydrated)
- Your doctor will monitor your kidney function periodically
- Check with your doctor if you have any questions

Lower limb amputation:

- There may be an increased risk of lower limb amputation (mostly toe/foot)
- Monitor your feet daily for sores and loss of sensation
 - Immediately report any changes to your doctor
- You may be at higher risk if:
 - You have had an amputation before
 - You have peripheral artery disease
 - You have neuropathy (loss of sensation)
 - You have foot ulcers or wounds

Diabetic ketoacidosis:

- Rare cases of a life-threatening condition called ketoacidosis have been reported
- Normally, ketoacidosis only happens when your blood sugar is very high, but with this medication, ketoacidosis can happen even when your blood sugar is normal
- You may be at higher risk of ketoacidosis if:
 - You have had diabetes for a long time
 - Your blood sugar is not controlled
 - You are taking insulin (especially if you miss a dose or have had a major dose reduction)
 - You have excessive alcohol intake
 - You follow a keto diet or have a big reduction in how much you eat
 - You have a major surgery or hospitalization
 - You engage in strenuous exercise
- Symptoms of ketoacidosis include fast breathing, shortness of breath, nausea, vomiting, diarrhea, stomach pain, decreased appetite, excessive thirst, unusual tiredness, confusion, slurred speech and fast heart rate
- If these symptoms occur, seek immediate medical attention (call 911 or have someone drive you to the hospital)

Other risks and precautions:

- A small increased risk of fractures was observed in trials involving canagliflozin
- A small increased risk of Fournier's gangrene (a type of "flesh eating disease" that affects the genitals and anus) has been reported
- Patients who have had bladder cancer should not take dapagliflozin
- 20 possible cases of pancreatitis have been reported to Health Canada

Disclaimer: This information has been compiled subsequent to provider discussions around this topic. It is not intended to be exhaustive, nor a substitute, for routine patient information provided when prescribing.