

# **Diabetes Medications:** DPP-4 inhibitors (gliptins)

### What is a DPP-4 inhibitor?

A DPP-4 inhibitor is a type of medication used to treat type 2 diabetes. It comes in a pill.

DPP-4 medication can be taken alone, or in a combination pill that also contains another diabetes medication called metformin.

#### What does it do?

A DPP-4 inhibitor blocks an enzyme called dipeptidyl peptidase 4 (DPP-4). This helps lower your blood glucose (blood sugar) in two ways:

- Decreases the amount of glucose released by your liver. Less glucose enters into your bloodstream.
- Boosts the production of insulin in your pancreas.
   More insulin allows glucose to more efficiently move out of the bloodstream and into your body's cells.

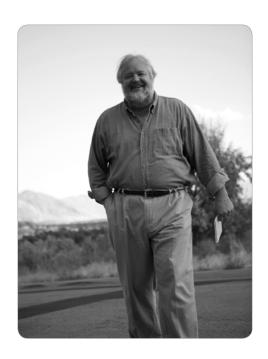
# Why is it important for my health?

A DPP-4 inhibitor can't cure your diabetes. But by helping control your blood glucose, it lowers the chance that your diabetes will cause serious problems.

As you know, when you have diabetes, you tend to have high blood glucose. Over time, this can damage your blood vessels and nerves, leading to heart attack or stroke, kidney and eye disease, and problems with your teeth, feet, and skin. If you have high blood pressure or high cholesterol — like many people with diabetes — you have an even greater risk for these problems. (This is why you should always take your blood pressure or cholesterol medications as well as your diabetes medications.)

# Do DPP-4 inhibitors cause hypoglycemia (low blood glucose)?

No, DPP-4 inhibitors don't cause hypoglycemia. By helping your body achieve a better glucose-insulin balance, they work to lower blood glucose only when it's too high.



DPP-4 inhibitors are also callled "gliptins" after their generic names. DPP-4 inhibitors include **sitagliptin** (Januvia), saxagliptin (Onglyza), and linagliptin (Tradjenta). Like other diabetes medications, DPP-4 inhibitors work best when you follow the rest of your diabetes treatment plan.

Even though DPP-4 inhibitors don't cause hypoglycemia, you may take other diabetes medications that do increase the risk of hypoglycemia. For this reason, it's good for you and your family to know the symptoms of hypoglycemia. These include feeling **shaky**, **sweaty**, **hungry**, and **irritable**. If you have these symptoms, test your blood glucose and take some quick-acting sugar if it is low. Good sources are 3 or 4 glucose tablets, a half-cup of fruit juice or regular soda, or a tablespoon of honey or sugar.

## Guidelines for taking a DPP-4 inhibitor

You should always follow your doctor's specific instructions for taking any medication, including a DPP-4 inhibitor. But there are some general rules that will probably apply to you:

- If you are pregnant or plan to become pregnant, call your doctor. Your doctor can tell you whether you need to switch to a different diabetes medication.
- If your symptoms go away or you decide you feel fine now, don't stop taking your medication.
   You need this medication to stay well.
- If you forget to take a dose, take it as soon as you remember. If it's already time for your next dose, just take the usual amount. Do NOT double your dose.
- If you don't follow your meal plan you overeat, skip a meal, or make a poor food choice don't adjust your medication dose.
- If you're sick, most of the time you should keep taking your DPP-4 inhibitor medication as prescribed. However, if you're throwing up or are dehydrated, call your doctor for additional instructions.
- If you're scheduled for a medical procedure, make sure the doctor and nurses know that you take a DPP-4 inhibitor. You might need to stop taking it for a short time if you have to fast beforehand, or if you're having a surgery or x-ray that uses contrast dye. Ask for instructions.

My medication (name):  Strength (mg per pill):
How much to take / when to take:
Other instructions:

### What are the side effects?

Side effects from DPP-4 inhibitors include a stuffy or runny nose, sore throat, headache, and diarrhea. Call your doctor if any of these side effects are severe. Also call your doctor right away if you have any of the serious symptoms listed in the section below.

## When to call or see your doctor

- You have questions about how to take your medication.
- You're thinking about stopping your medication.
   (Never stop without talking to your doctor first.)
- You're ill and think you may be dehydrated.
- You have severe side effects that don't go away.

Call immediately if you notice any of these serious symptoms:

- · Nausea and vomiting
- Ongoing pain that begins in the upper left or middle of the stomach but may spread to the back (this pain could pancreatitis, a serious complication of some DPP-4 inhibitors)
- · Rash or hives
- Swelling of the face, lips, tongue or throat