



What are DPP-4 Inhibitors (gliptins)?

DPP-4 inhibitors, or gliptins as they are sometimes called, are a group of medications used to treat type 2 diabetes.

DPP4- inhibitors are usually prescribed when diet and exercise alone have not been enough to control your blood glucose levels. DPP4-inhibitors can also come in a combined form with another diabetes drug called Metformin.

There are a number of different tablets in the DPP4-inhibitor family, these include:

Generic name	Brand or Trade name
Sitagliptin	Januvia
Sitagliptin + Metformin	Janumet
Vildagliptin	Galvus
Vildagliptin +Metformin	Eucreas
Saxagliptin	Onglyza
Saxagliptin + Metformin	Kombolyze
Alogliptin	Vipidia
Alogliptin + Metformin	Vipdomet
Linagliptin	Trajenta
Linagliptin +Metformin	Jentadueto

How do DPP-4 inhibitors work?

DPP-4 inhibitors work by blocking the action of an enzyme called DPP-4, which destroys the hormone incretin. Incretins are a group of hormones that are released throughout the day and increase at mealtimes. They help the body produce more insulin and reduce the amount of glucose being produced by the liver when it is not needed. Overall, this helps lower your blood glucose levels.

The increased levels of incretins also slow your stomach and intestines down leading to a slightly decreased appetite and feeling full much quicker when eating a meal. This may lead to some mild weight loss which is usually helpful for your diabetes.

Medications in the DPP-4 family reduce the symptoms of high blood glucose levels (such as passing large amounts of urine and feeling thirsty). In the long-term, good control of blood glucose levels reduces the risk of developing problems with your eyes, kidneys and feet.



How are DPP-4 inhibitors taken?

DPP-4 inhibitors come in a tablet form and can be taken at any time of the day, usually accompanied by a glass of water. It is important to try and take them at the same time each day.

What are the side-effects of taking DPP-4 inhibitors?

Most people can take DPP-4 inhibitors without experiencing many other side effects. However, some people may experience:

- Headaches
- Changes in bowel habits (e.g. diarrhoea or constipation)

There are a few very rare side-effects of DPP-4 inhibitors. Gallstone disease, cholecystitis (inflammation of the gallbladder) and pancreatitis (inflammation of the pancreas) has been reported in some people that take DPP-4 inhibitors.

It is important that you contact your doctor or nurse immediately if you develop severe abdominal (tummy) or back pain.

DPP-4 inhibitors can also interact with other medications like Digoxin, antibiotics, HIV drugs and anti-fungal medications, so let your doctor know if you are taking any of these.

Let the doctor know if you are taking any herbal remedies or alternative non- medical therapies as these could also interact with DPP-4 inhibitors.

DPP-4 inhibitors and Driving

DPP-4 inhibitors should not affect your ability to drive, cycle or use machinery or tools as long as your blood glucose levels are stable.

You should never drive with a low blood sugar level. On their own, DPP-4 inhibitors will not cause your blood glucose level to go too low (i.e. cause hypoglycaemia, which is classed as a blood glucose level less than 4 mmol/L), but they may increase the risk of this happening if you also take insulin or drugs called sulphonylureas (e.g. gliclazide).

Check with your diabetes care team if you would like further guidance or have a look at the [national guidelines for driving when you have diabetes](#).



When should DPP-4 inhibitors not be used?

DPP-4 inhibitors can be taken by adults over the age of 18 years. They are not suitable for everyone, so make sure you tell your doctor if you:

- Have had an allergic reaction to any drugs in the DPP-4 inhibitor family or any other medicines
- Have or have had pancreatitis (inflammation of the pancreas)
- Have gallstones or high levels of triglycerides (a type of fat) in your blood
- Are a heavy drinker
- Have problems with your kidneys
- Are pregnant, planning a pregnancy or breastfeeding

What if I forget to take my medication?

If you forget to take a dose, then take it as soon as you remember **unless** it's nearly time for your next dose. In this case, skip the missed dose and just take your next one as normal.

Do not take a double dose to make up for a missed one.

What if I take too much?

Speak to your doctor if you have taken too much of your medication and you have:

- Stomach pains
- Are feeling, or being sick
- Feel dizzy
- Feel anxious

Getting the most from DPP-4 inhibitors

Continue to take your medication regularly unless your doctor or nurse tells you otherwise. It is important that you keep your regular clinic appointments.

If you have been advised by your doctor or nurse about changes to your diet, stopping smoking or taking regular exercise, it is important that you follow this advice.

