

METFORMIN

Brand names Glucophage, Glucophage SR

Used in the following combined preparations Avandamet, Competact, Eucreas, Janumet, Komboglyze, Vipdomet, Xigduo

GENERAL INFORMATION

Metformin is an antidiabetic drug used to treat Type 2 diabetes, in which some insulin is still produced by the pancreas. The drug reduces blood sugar levels by delaying absorption of glucose, reducing glucose production in the liver, and helping your body respond better to its own insulin so that cells take up glucose more effectively from the blood.

Metformin is used in conjunction with a good diet and exercise. It can be given with insulin or other antidiabetic drugs but is often used on its own to treat people with Type 2 diabetes who are obese. Metformin is also used in the treatment of polycystic ovarian syndrome.

QUICK REFERENCE

Drug group Drug for diabetes (p.100)
Overdose danger rating High
Dependence rating Low
Prescription needed Yes
Available as generic Yes

INFORMATION FOR USERS

Your drug prescription is tailored for you. Do not alter dosage without checking with your doctor.

How taken/used



Tablets.

Frequency and timing of doses

2–3 x daily with food.

Adult dosage range

1.5–3g daily with a low dose at the start of the treatment.

Onset of effect

Within 2 hours. It may take 2 weeks to achieve control of diabetes.

Duration of action

8–12 hours.

Diet advice

An individualized low-fat, low-sugar diet must be maintained in order for the drug to be fully effective. Follow your doctor's advice.

Storage

Keep in original container at room temperature out of the reach of children.

Missed dose

Take as soon as you remember. If your next dose is due within 2 hours, take a single dose now and skip the next.

Stopping the drug

Do not stop taking the drug without consulting your doctor; stopping the drug may lead to worsening of the underlying condition.

OVERDOSE ACTION



Seek immediate medical advice in all cases. Take emergency action if seizures or loss of consciousness occur.

See Drug poisoning emergency guide (p.510).

SPECIAL PRECAUTIONS

Be sure to tell your doctor if:

- You have long-term liver or kidney problems.
- You have heart failure.
- You are a heavy drinker.
- You are taking other medicines.



Pregnancy

Not usually prescribed. Insulin is usually substituted because it provides better diabetic control during pregnancy. Discuss with your doctor.



Breast-feeding

Safety not established. Discuss with your doctor.



Infants and children

Not recommended under 10 years.



Over 60

Increased likelihood of adverse effects. Reduced dose may therefore be necessary.



Driving and hazardous work

Usually no problems. Avoid such activities if you have warning signs of low blood sugar.



Alcohol

Avoid. Alcohol increases the risk of low blood sugar, and can cause coma by increasing the acidity of the blood.

POSSIBLE ADVERSE EFFECTS

Minor gastrointestinal symptoms, such as nausea, are often helped by taking the drug with food. Diarrhoea usually settles after a few days of treatment. The most serious side effect

is a potentially fatal build-up of lactic acid in the blood. This is very rare and usually occurs only in diabetics with impaired kidney function.

Symptom/effect	Frequency		Discuss with doctor		Stop taking drug now	Call doctor now
	Common	Rare	Only if severe	In all cases		
Loss of appetite/metallic taste	●		●			
Nausea/vomiting	●		●			
Diarrhoea		●	●			
Dizziness/confusion		●		●		
Weakness/sweating		●		●		
Rash		●		●		

INTERACTIONS

General note A number of drugs reduce the effects of metformin. These include corticosteroids, oestrogens, and diuretics. Other drugs, notably monoamine oxidase inhibitors (MAOIs) and beta blockers, increase its effects.

Warfarin Metformin may increase the effect of this anticoagulant drug. The dosage of warfarin may need to be adjusted accordingly.

PROLONGED USE

Prolonged treatment with metformin can deplete reserves of vitamin B₁₂ and this may rarely cause anaemia.

Monitoring Regular checks on kidney function and on blood sugar control are usually required. Vitamin B₁₂ levels may also be checked annually.