

Oral medications & injections: How they work?

The types of medications are categorised according to how they work in the body to lower blood glucose levels

ORAL MEDICATIONS	DRUG NAME	BRAND NAMES		HOW THEY WORK	SOME SIDE EFFECTS	HOW TO TAKE
Biguanides	Metformin	Glucophage, Metophage, Metformin Bluefish, Metformin Mylan, Metformin Teva, Metformin Aurobind		They increase the effectiveness of the body's insulin and also stop the liver producing new glucose	Nausea, abdominal pain, soft bowel motions or diarrhoea, taste disturbance, weight loss	Take as prescribed with food to minimise side effects
*Sulphonylureas	Gliclazide (slow release)	Diaglyc, Diamicron MR, Diaclide MR, Diacronal MR, Vitile MR. (MR = modified release)		They stimulate the pancreas to make insulin regardless of what the blood glucose level is	May cause low blood glucose levels (hypos). Other side effects may include an upset tummy, headache and rarely a skin rash. Increased appetite can cause weight gain	Take as prescribed with food
	Gliclazide (short acting)	Diamicron, Diabrezide, Diaclide				
	Glimepiride,	Amaryl				
	Glibenclamide	Daonil				
*Meglitinides (Prandial glucose regulators)	Repaglinide	Novonorm		They stimulate extra insulin production when carbohydrate is taken. Its effects do not last very long and therefore, is only taken with meals	Most common side effect is low blood glucose levels (hypos) but it is unlikely due to the short duration of the tablet	Take as prescribed before meals. If you miss a meal don't take the tablet
Thiazolidinediones (Glitazones)			Combination with Metformin	They increase the effectiveness of the body's insulin	Fluid retention, weight gain, respiratory infection, abnormal vision and numbness. If you experience fluid retention, shortness of breath and unusual tiredness report these symptoms to your doctor without delay	Take as prescribed with or without food
	Pioglitazone	Pioglitazone	Competact			
SGLT2: Sodium glucose co-transporter 2 inhibitors			Combination with Metformin	They work in the kidney by removing excess glucose and associated calories via the urine. They have the additional benefit of weight loss	They are associated with a higher incidence of genital infections such as thrush and urinary tract infections. They may increase urination	Take as prescribed with or without food
	Dapagliflozin	Forxiga	Xigduo,			
	Empagliflozin Canagliflozin	Jardiance Invokana	Synjardy, Vokanamet			
DPPIV inhibitors			Combination with Metformin	They have the effect of increasing insulin production when needed and reducing glucose production from the liver when it is not needed	Sore throat, stuffy nose, upper respiratory infection. <u>Report persistent and severe stomach pain to your doctor immediately</u>	Take as prescribed with or without food
	Sitagliptin	Januvia	Janumet			
	Vildagliptin, Saxagliptin	Galvus Onglyza	Eucreas Komboglyze			
	Linagliptin	Trajenta	Jentadueto			
Alpha-glucosidase inhibitors	Acarbose	Glucobay		They help to slow the break-down of food in the digestive system and the absorption of glucose into the bloodstream	These can cause stomach upset, flatulence and bloating	Take as prescribed with food to help alleviate side effects
INJECTIONS	DRUG NAME	BRAND NAMES		HOW THEY WORK	SOME SIDE EFFECTS	WHEN TO TAKE
GLP1s agonists (non-insulin injections)	Exenatide	Byetta		They increase insulin production when food is present and reduce glucose production from the liver to lower blood glucose levels. They also cause a reduction in appetite and delayed stomach emptying which may result in weight loss	Nausea, weight loss, headache, diarrhoea, vomiting, decreased appetite. <u>Persistent and severe stomach pain must be reported to your doctor immediately</u>	These medications are injections but they are not insulin. You should be instructed how and when to use this medication by a doctor or a nurse before it is prescribed
	Exenatide extended release	Bydureon				
	Dulaglutide extended release	Trulicity				
	Liraglutide	Victoza				