Medications to Treat Type 2 Diabetes

Type 2 diabetes can be treated with insulin shots, other injections, pills, or a combination.

What medication should I take to treat my diabetes?

Diabetes medicines work in different ways and are often used together. The goal is to help manage your blood sugar.

Some people with type 2 diabetes are able to manage their diabetes with pills alone. Other people with type 2 diabetes need take insulin shots to treat their diabetes. There are also newer injectable medicines that are helpful for some people with diabetes. In many cases, a combination of pills and shots may be needed.

The table below reviews the different types of diabetes medications.

All diabetes medications work best when combined with a daily diet and exercise plan.

How do diabetes pills work?

Some pills:

- Stop your liver from releasing too much sugar
- Help your pancreas to make more insulin
- Help your body better use your insulin
- Slow the digestion of some carbohydrates

When should I call my healthcare provider?

- If you have very low (less than 70 mg/dl) or very high (persistently higher than 300 mg/dl) blood sugar
- If you are concerned about any new side effects
- If you stop taking your pills for any reason

What things might affect how well my medicines work?

- Alcohol
- Other illnesses
- Worsening kidney or liver problems
- Over-the-counter medications
- Herbal supplements

What should I know about taking my pills?

- Take your pills at the right time every day
- Eat at regular meal times
- Review your list of medications with your healthcare provider at every visit
- It is important to know what medication(s) you are taking. Keep a list of your medications in one place and keep it up to date with this information:

- Name of your diabetes medicine
- How to take it
- Reasons for taking it
- Possible side effects

Examples of diabetes medications and how they work

Generic or brand names	Class	Where they work	How they control your blood sugar	Side effects/ Comments
Metformin/ Glucophage Pills	Biguanides	Liver and intestine	Stops the liver from releasing too much glucose. Improves intestinal handling of glucose. Pre-meal blood sugars are lowered.	Bloating, decreased appetite, nausea, and diarrhea. Usually improve after a few weeks. Take with food.
Glyburide/ Glipizide/ Glimepiride Pills	Sulfonylureas	Pancreas	Helps pancreas to release more insulin.	Low blood sugar and weight gain. Take with meals. Don't take if you are skipping a meal.
Pioglitazone / Actos Pills	Thiazolidinediones (TZDs)	Liver and fat cells	Makes liver and fat cells sensitive to insulin. Fasting blood sugars are lowered.	Weight gain and swelling. Takes 4-6 weeks to see an effect on your blood sugar.
Sitagliptin/Januvia Saxagliptin/Onglyza Linagliptin/Trajenta Others <i>Pills</i>	Dipeptidyl peptidase-4 (DPP- 4) inhibitors	Bloodstream	Prevents the breakdown of GLP-1, a hormone that increases insulin release from the pancreas.	Rarely, headache or upper respiratory infection. May cause pancreatitis.
Canagliflozin /Invokana Dapagliflozin/Farxiga Empagliflozin/Jardiance Others	Sodium-glucose co-transporter 2 (SGLT2) inhibitors	Kidney	Increases glucose in the urine, allowing the body to discard extra glucose.	Frequent urination, genital and urinary yeast and bacterial infections. Weight loss.
Exenatide/Byetta Liraglutide/Victoza Exenatide ER/Bydureon Dulaglutide/Trulicity Others Injections	Glucagon-like peptide-1 (GLP-1) agonist	Pancreas, liver, intestine	Stops the liver from releasing too much glucose; slows digestion; increases insulin release when glucose is high.	Nausea and vomiting in 15- 40%. Weight loss.

Nateglinide/Starlix Repaglinide/Prandin Pills	Meglitinides	Pancreas	Helps pancreas release more insulin. Post-meal blood sugars are lowered.	Low blood sugar. Take up to 30 minutes before each meal. Don't take if you are skipping a meal.
Acarbose/Precose Pills	Alpha-glucosidase Inhibitors	Intestine	Slows the digestion of starches. Postmeal blood sugars are lowered.	Bloating, gas, and diarrhea, which usually improve after 6 months. Take with first bite of food.
Many types: • Glargine • Basaglar • NPH • Degludec Injections	Long-acting insulin	Liver, muscle, fat cells	Insulin replaces the natural hormone that is in short supply or absent in people with diabetes. Can lower fasting and post-meal sugars.	Low blood sugar and weight gain. Dose may need to be reduced for exercise or changed to match the size of meals.

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