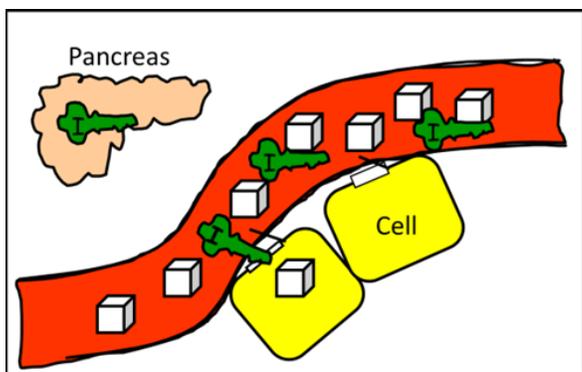


## Metformin and Other Medications for Type 2 Diabetes



In type 2 diabetes, the pancreas doesn't make enough insulin (keys) AND the insulin doesn't work as well as normal (insulin resistance). Insulin is the KEY to let sugar into your cells and bring down your blood sugar.

There are only a few medications used for type 2 diabetes in children and adolescents. These are metformin and insulin. There are other medications that are used more often in adults with type 2 diabetes.

Insulin is always given by shots. If you need insulin, your diabetes team will teach you how to use it.

### Metformin

A pill that is taken 1- 2 times every day.

**Other Common Names:** Glucophage, Glucophage XR

**How does it work?** Metformin brings down blood sugar by making insulin work better (decreasing insulin resistance) and causing the liver to make less sugar. It can take several days or even weeks before metformin works well.

**What if I miss a dose?** Take your dose as soon as you remember. If it is more than 2 hours from your missed dose, then skip the missed dose. DO NOT take 2 doses at the same time.

**Common Side Effects:** Loose stools/diarrhea, upset stomach, and gas.

These USUALLY GET BETTER if you keep taking your metformin. Try taking it with food. If the symptoms bother you a lot, ask about an extended release form.



**Serious Side Effects:** Rare risk of lactic acidosis – a form of too much acid in your blood. DON'T TAKE YOUR METFORMIN if you have VOMITING/DIARRHEA, are having SURGERY, or are having CT SCAN with CONTRAST. If it is a scheduled procedure, stop metformin 24-48 hours before it is scheduled. You can restart metformin 24 hours after you recover.

Call your doctor right away if you have fast breathing, fast heartbeat, shortness of breath, very bad belly pain, feeling very tired or weak, very bad dizziness, muscle pain or cramps.

**Does metformin cause low blood sugar?** Not usually, but if you are on insulin it makes your insulin (and certain other diabetes medications) work better, and your insulin could cause a low blood sugar.

## Other Medicines for Type 2 Diabetes

Metformin is the pill used most often to treat type 2 diabetes. In adults, there are a lot of other medications used for type 2 diabetes. In both kids and adults, many patients also need insulin to control blood sugars.

Here are some of the other types of medicines used to control blood sugars in adults with type 2 diabetes:

Type of Medication	Examples	How it changes blood sugar	Pills or Shots
Sulfonylurea	Glyburide, Glipizide	Makes more insulin	pills
Meglitinide	Repaglinide, Nateglinide	Makes more insulin	pills
GLP-1 agonist	Exenatide, liraglutide, albiglutide	Makes more insulin, slows down digestion	shots
DPP4 inhibitor	Sitagliptin, saxagliptin	Makes GLP-1 keep working	pills
SGLT2 inhibitor	Canagliflozin, dapagliflozin	Sugar goes out in urine	pills
Thiazolidinediones	Pioglitazone, Rosiglitazone	Makes insulin work better	pills

## Learning Check-up:

- I am taking metformin for my diabetes, but this morning I forgot my pill and did not remember until 6 hours later. I should:
  - Skip the dose and forget about it
  - Skip the dose and write it in my logbook as missed
  - Take double the amount the next time
- Mark each statement T (true) if it is a fact or F (false) if it is fiction.

Fact (T) or Fiction (F)?	
T F	It can take several days for diabetes medicines to work well.
T F	You should stop your medicines if you have an upset stomach.
T F	If you forget the morning pill, just take it with the evening pill.
T F	People with type 2 diabetes sometimes need insulin shots.