

Metformin

Metformin is a medicine used in patients with type 2 diabetes, insulin resistance, or non-alcoholic fatty liver disease. It is used with a "healthy eating" meal plan and exercise. Metformin may also be taken with other diabetes medicines.

How it Works

Metformin lowers blood sugar in these ways:

- Helps muscle cells use sugar
- Lowers the amount of sugar the liver makes
- Lowers how much sugar the body absorbs from the food you eat.

Metformin does **not** increase how much insulin the body makes.

Types of Metformin

- Glucophage® (Metformin Regular Release) comes in 500 mg, 850 mg and 1000 mg tablets.
- Fortamet® Glucophage XR®, Glumetza® (Metformin Extended Release) comes in 500 mg, 750 mg, 1000 mg tablets
- Riomet® (Metformin Regular Release) comes in 500 mg/5 mL solution

Dosing

You will take metformin one to three times every day. You will take it with food or after you eat. Follow the directions on your bottle.

Metformin is usually started at a low dose. The dose is increased over one or two weeks. This makes stomach upset less likely.

Most patients take 1500 mg to 2000 mg of metformin every day. Pediatric patients may take lower doses lower ranging from 500 mg to 2000 mg every day.

Metformin extended release tablets must be swallowed whole. Never crush or chew them.

You may see part of the extended release tablet in your stool. This is the outer shell of the tablet. Do not take an extra dose if this happens.

Do not stop taking metformin on your own. Keep taking it even if you feel well. Keep taking it if your blood sugars improve. If you miss a dose of this medicine, take it with food as soon as you can. Skip the missed dose if it is almost time for your next dose. Do not take two doses at once.

Before Starting Metformin

Your doctor will order lab tests while you take this medicine. The labs may check kidney function, fasting blood glucose, hemoglobin A1c, and complete blood cell counts. Lab tests help monitor your diabetes and helps check for side effects of the medicine.

Keep all doctor and lab appointments. Wear a medical alert bracelet or necklace.

Let your doctor know if:

- You have congestive heart failure (CHF).
- You are pregnant, planning on becoming pregnant, or breastfeeding.
- You are having a body scan or x-ray that uses dye. Metformin may need to be stopped for a few days.

- You are having surgery. Metformin may need to be stopped for a few days.

Tell your doctor and pharmacist about your medicines. This includes prescription and over the counter medicines. Also tell them about herbal and vitamin products. Tell them about all of your health problems.

Side Effects

The most common side effects are nausea or stomach upset, diarrhea, bloating, and decreased appetite. The side effects should go away within one or two weeks. The side effects may come back if your dose is increased.

Take metformin with food or after a meal for fewer side effects.

Contact your health care team if the side effects do not get better. Contact them if you have a change in your health. Metformin should not cause low blood sugar if it is your only diabetes medicine.

Metformin can cause lactic acidosis. Lactic acidosis is a rare but severe problem. It happens when lactic acid builds up in the blood. Your risk is low if you have healthy kidneys and liver.

Here are some things that may increase your risk:

- Severe kidney or liver problems.
- Drinking large amounts of alcohol every day
- Binge alcohol drinking
- Severe congestive heart failure
- Illness (vomiting, diarrhea, fever)
- Dehydration

Lactic acidosis can make you feel weak or tired. Your muscles may ache. You may have trouble breathing. Your stomach may hurt or you may have cramps. You may feel cold and your heartbeat may change. You may feel dizzy or faint. **Call your doctor right away if you have these symptoms while you are taking metformin.**

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2020. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#4912.