Intermountain® Healthcare

Diabetes Medications: *Metformin*

What is metformin?

Metformin is used to treat type 2 diabetes and insulin resistance. Metformin is taken by mouth (orally) as a pill. Like other diabetes medications, it works best when you follow the rest of your treatment plan. This means checking your blood glucose regularly, following your meal plan, and exercising every day.

What does it do?

Metformin helps lower your blood glucose (blood sugar). It does this in two ways:

- **Decrease the amount of glucose released by your liver.** Less glucose enters into your bloodstream.
- **Increase the ability of your muscles to use glucose for energy.** As more glucose is used, more glucose leaves your bloodstream.

Why is metformin important for my health?

Metformin can't cure your diabetes. But by helping control your blood glucose, it lowers the chance that your diabetes will cause serious problems.

As you know, when you have diabetes, you tend to have high blood glucose. Over time, this can damage your blood vessels and nerves, leading to heart attack or stroke, kidney and eye disease, and problems with your teeth, feet, and skin. If you have high blood pressure or high cholesterol — like many people with diabetes — you have an even greater risk for these problems. (This is why you should always take your blood pressure or cholesterol medications as well as your diabetes medications.)

Metformin is the generic name of this medication. Brand names are **Glucophage** and **Glucophage XR**. Like other diabetes medications, meglitinides work best when you follow the rest of your diabetes treatment plan.

Does metformin cause hypoglycemia (low blood glucose)?

Metformin doesn't cause hypoglycemia by itself. But combined with other medications, vigorous exercise, or too little food, it can make your blood glucose drop too low.

Since low blood glucose can be dangerous, make sure that you and your family know the symptoms. These include feeling **shaky, sweaty, hungry**, and **irritable**. If you have these symptoms, take some quick-acting sugar. Good sources are 3 or 4 glucose tablets, a half-cup of fruit juice or regular soda, or a tablespoon of honey or sugar.

Guidelines for taking metformin

You should always follow your doctor's specific instructions for taking any medication, including metformin. But there are some general rules that will probably apply to you:

- **If you don't notice a change in your blood glucose right away,** don't stop taking your metformin. It takes about 3 to 4 weeks for metformin to reach its full effect.
- **If your symptoms go away or you decide you feel fine now,** don't stop taking metformin. You need this medication to stay well.
- **If you forget to take a dose, take it as soon as you remember.** If it's already time for your next dose, just take the usual amount. Do NOT double your dose.
- **If you take extended-release metformin (Glucophage XR),** be sure to swallow the pill whole. Don't chew, crush, or split the pill.
- **If you don't follow your meal plan** — you overeat, skip a meal, or make a poor food choice — don't adjust your metformin dose.
- **If you're sick,** most of the time you should keep taking metformin as prescribed. However, if you're throwing up or dehydrated, stop taking your metformin. Call your doctor for additional instructions.
- **If you're scheduled for a medical procedure**, make sure that the doctor and nurses know that you take metformin. You might need to stop taking it for a short time if you have to fast beforehand, or if you're having a surgery or x-ray that uses contrast dye. Ask for instructions.

My medication (name): _____

Strength (mg per pill): _____

How much to take / when to take:_____

_____

Other instructions:_____

_____

What are the side effects?

Common side effects from metformin include **nausea**, **diarrhea**, **gas**, and **upset stomach**. These are most likely when you first start taking it and usually go away on their own. Until they do, try taking your metformin with a meal. You can also try reducing the amount you take for a few days, gradually increasing until you've reached the amount your doctor has prescribed for you.

Lactic acidosis is a very rare — but very serious — side effect. It happens most often in people with liver, kidney, or respiratory diseases. Call your doctor right away if you have any of these symptoms of lactic acidosis: weakness, stomach pain or discomfort, fast and shallow breathing, sleepiness, and muscle cramping.

When to call or see your doctor

- You have questions about how to take your medication.
- You're thinking about stopping your medication. (Never stop without talking to your doctor first.)
- You're ill and think you may be dehydrated.
- You have side effects that don't go away.
- You have any symptoms of lactic acidosis (see "What are the side effects?" above).

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