PATIENT & CAREGIVER EDUCATION

Metformin

This information from UpToDate® Lexidrug™ explains what you need to know about this medication, including what it's used for, how to take it, its side effects, and when to call your healthcare provider.

Brand Names: US

Glumetza [DSC]; Riomet [DSC]

Brand Names: Canada

AG-Metformin; APO-MetFORMIN ER; Auro-Metformin; Glucophage; Glumetza; JAMP-MetFORMIN; M-Metformin; M-Metformin XR; Mar-MetFORMIN; MAR-Metformin XR; MetFORMIN; MINT-MetFORMIN; MINT-Metformin XR; NRA-Metformin; PMS-MetFORMIN; PMSC-Metformin; PRO-MetFORMIN; PRZ-Metformin; RIVA-MetFORMIN; SANDOZ MetFORMIN FC; TARO-Metformin XR; TEVA Metformin

Warning

- Rarely, metformin may cause too much lactic acid in the blood (lactic acidosis). The risk is higher in people who have kidney problems, liver problems, heart failure, mitochondrial disease, use alcohol, or take certain other drugs, including topiramate. The risk is also higher in people who are 65 or older and in people who are having surgery, an exam or test with contrast, or other procedures. If lactic acidosis happens, it can lead to other health problems and can be deadly. Kidney tests may be done while taking this drug.
- Do not take this drug if you have a very bad infection, low oxygen, or a lot of fluid loss (dehydration).
- Call your doctor right away if you have signs of too much lactic acid in the blood (lactic acidosis) like confusion; fast breathing; fast or slow heartbeat; a heartbeat that does not feel normal; very bad stomach pain, upset stomach, or throwing up; feeling very sleepy; shortness of breath; feeling very tired or weak; very bad dizziness; feeling cold; or muscle pain or cramps.

What is this drug used for?

- It is used to help control blood sugar in people with type 2 diabetes.
- It may be given to you for other reasons. Talk with the doctor.

What do I need to tell my doctor BEFORE I take this drug?

- If you are allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell your doctor about the allergy and what signs you had.
- If you have any of these health problems: Acidic blood problem, kidney disease, or liver disease.
- If you have had a recent heart attack or stroke.

- If you have a mitochondrial disease like MELAS syndrome (mitochondrial encephalomyopathy with lactic acidosis and stroke-like episodes) or MIDD (maternally inherited diabetes and deafness).
- If you are not able to eat or drink like normal, including before certain procedures or surgery.
- If you are having an exam or test with contrast or have had one within the past 48 hours, talk with your doctor.

This is not a list of all drugs or health problems that interact with this drug.

Tell your doctor and pharmacist about all of your drugs (prescription or OTC, natural products, vitamins) and health problems. You must check to make sure that it is safe for you to take this drug with all of your drugs and health problems. Do not start, stop, or change the dose of any drug without checking with your doctor.

What are some things I need to know or do while I take this drug?

All products:

- Tell all of your health care providers that you take this drug. This includes your doctors, nurses, pharmacists, and dentists.
- Talk with your doctor before you drink alcohol.
- Do not drive if your blood sugar has been low. There is a greater chance of you having a crash.
- Check your blood sugar as you have been told by your doctor.
- Have your blood work and other lab tests checked as you have been told by your doctor.
- It may be harder to control blood sugar during times of stress such as fever, infection, injury, or surgery. A change in physical activity, exercise, diet, or weight may also affect blood sugar.
- Follow the diet and exercise plan that your doctor told you about.
- If diarrhea happens or you are throwing up, call your doctor. You will need to

drink more fluids to keep from losing too much fluid.

- Be careful in hot weather or while being active. Drink lots of fluids to stop fluid loss.
- Long-term treatment with metformin may lead to low vitamin B-12 levels. If you have ever had low vitamin B-12 levels, talk with your doctor.
- If you are 65 or older, use this drug with care. You could have more side effects.
- There is a chance of pregnancy in people of childbearing age who have not been ovulating. If you want to avoid pregnancy, use birth control while taking this drug.
- Tell your doctor if you are pregnant, plan on getting pregnant, or are breast-feeding. You will need to talk about the benefits and risks to you and the baby.

Extended-release tablets:

- You may see something that looks like the tablet in your stool. This is normal and not a cause for concern. If you have questions, talk with your doctor.

What are some side effects that I need to call my doctor about right away?

WARNING/CAUTION: Even though it may be rare, some people may have very bad and sometimes deadly side effects when taking a drug. Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction, like rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.
- It is common to have stomach problems like upset stomach, throwing up, or diarrhea when you start taking this drug. If you have stomach problems later during treatment, call your doctor right away. This may be a sign of an acid health problem in the blood (lactic acidosis).

- Low blood sugar can happen. The chance may be raised when this drug is used with other drugs for diabetes. Signs may be dizziness, headache, feeling sleepy or weak, shaking, fast heartbeat, confusion, hunger, or sweating. Call your doctor right away if you have any of these signs. Follow what you have been told to do for low blood sugar. This may include taking glucose tablets, liquid glucose, or some fruit juices.

What are some other side effects of this drug?

All drugs may cause side effects. However, many people have no side effects or only have minor side effects. Call your doctor or get medical help if any of these side effects or any other side effects bother you or do not go away:

- Stomach pain or heartburn.
- Gas.
- Diarrhea, upset stomach, or throwing up.
- Feeling tired or weak.
- Headache.

These are not all of the side effects that may occur. If you have questions about side effects, call your doctor. Call your doctor for medical advice about side effects.

You may report side effects to your national health agency.

You may report side effects to the FDA at 1-800-332-1088. You may also report side effects at https://www.fda.gov/medwatch.

How is this drug best taken?

Use this drug as ordered by your doctor. Read all information given to you. Follow all instructions closely.

All products:

- Take with meals.
- Keep taking this drug as you have been told by your doctor or other health care provider, even if you feel well.

Extended-release tablets:

- Take with the evening meal if taking once daily.
- Swallow whole. Do not chew, break, or crush.
- If you have trouble swallowing, talk with your doctor.

Oral solution:

- Measure liquid doses carefully. Use the measuring device that comes with this drug. If there is none, ask the pharmacist for a device to measure this drug.

What do I do if I miss a dose?

- Skip the missed dose and go back to your normal time unless your doctor tells you to do something else.
- Do not take 2 doses at the same time or extra doses.

How do I store and/or throw out this drug?

All products:

- Store at room temperature in a dry place. Do not store in a bathroom.
- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Throw away unused or expired drugs. Do not flush down a toilet or pour down a drain unless you are told to do so. Check with your pharmacist if you have questions about the best way to throw out drugs. There may be drug take-back programs in your area.

All tablet products:

- Protect from light.

General drug facts

- If your symptoms or health problems do not get better or if they become worse, call your doctor.
- Do not share your drugs with others and do not take anyone else's drugs.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- Some drugs may have another patient information leaflet. Check with your pharmacist. If you have any questions about this drug, please talk with your doctor, nurse, pharmacist, or other health care provider.
- If you think there has been an overdose, call your poison control center or get medical care right away. Be ready to tell or show what was taken, how much, and when it happened.

Consumer Information Use and Disclaimer

This generalized information is a limited summary of diagnosis, treatment, and/or medication information. It is not meant to be comprehensive and should be used as a tool to help the user understand and/or assess potential diagnostic and treatment options. It does NOT include all information about conditions, treatments, medications, side effects, or risks that may apply to a specific patient. It is not intended to be medical advice or a substitute for the medical advice, diagnosis, or treatment of a health care provider based on the health care provider's examination and assessment of a patient's specific and unique circumstances. Patients must speak with a health care provider for complete information about their health, medical questions, and treatment options, including any risks or benefits regarding use of medications. This information does not endorse any treatments or medications as safe, effective, or approved for treating a specific patient. UpToDate, Inc. and its affiliates disclaim any warranty or liability relating to this information or the use thereof. The use of

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If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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