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 give this drug to your child if your child has a very bad infection, low oxygen, or a lot of fluid loss.
- Call the doctor right away if your child has 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 your child for other reasons. Talk with the doctor.

What do I need to tell the doctor BEFORE my child takes this drug?

- If your child is allergic to this drug; any part of this drug; or any other drugs, foods, or substances. Tell the doctor about the allergy and what signs your child had.
- If your child has any of these health problems: Acidic blood problem, kidney disease, or liver disease.
- If your child has had a recent heart attack or stroke.
- If your child has a mitochondrial disease like MELAS syndrome (mitochondrial encephalomyopathy with lactic acidosis and stroke-like episodes) or MIDD (maternally inherited diabetes and deafness).
- If your child is not able to eat or drink like normal, including before certain procedures or surgery.
- If your child is having an exam or test with contrast, or has had one within the past 48 hours, talk with the doctor.

This is not a list of all drugs or health problems that interact

with this drug.

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

What are some things I need to know or do while my child takes this drug?

All products:

- Tell all of your child's health care providers that your child is taking this drug. This includes your child's doctors, nurses, pharmacists, and dentists.
- Alcohol may interact with this drug. Be sure your child does not drink alcohol.
- If your child is old enough to drive, do not let your child drive if their blood sugar has been low. There is a greater chance of having a crash.
- Check your child's blood sugar as you have been told by the doctor.
- Have your child's blood work and other lab tests checked as you have been told by the 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 your child's blood sugar.
- Have your child follow the diet and exercise plan your child's doctor told you about.
- If your child has diarrhea or is throwing up, call your child's doctor. Your child will need to drink more fluids to keep from losing too much fluid.
- Have your child be careful in hot weather or while your child is being active. Have your child drink lots of fluids to stop fluid loss.
- Long-term treatment with metformin may lead to low vitamin B-12 levels. If your child has ever had low vitamin B-12 levels, talk with the doctor.

If your child is or may be sexually active:

- There is a chance of pregnancy in people of childbearing age who have not been ovulating. To avoid pregnancy, have your child use birth control while taking this drug.

If your child is pregnant or breast-feeding a baby:

- Talk with the doctor if your child is pregnant, becomes pregnant, or is breast-feeding a baby. You will need to

talk about the benefits and risks to your child and the baby.

Extended-release tablets:

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

What are some side effects that I need to call my child's 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 child's doctor or get medical help right away if your child has 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 starting this drug. If your child has stomach problems later during treatment, call the 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 the doctor right away if your child has any of these signs. Follow what you have been told to do for low blood sugar. This may include giving your child 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 child's doctor or get medical help if any of these side effects or any other side effects bother your child 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 child's doctor. Call your child's doctor for medical advice about side effects.

You may report side effects to your national health agency.

How is this drug best given?

Give this drug as ordered by your child's doctor. Read all information given to you. Follow all instructions closely.

All products:

- Give this drug with meals.
- Keep giving this drug to your child as you have been told by your child's doctor or other health care provider, even if your child feels well.

Extended-release tablets:

- Give with the evening meal if giving once daily.
- Have your child swallow whole. Do not let your child chew, break, or crush.
- If your child has trouble swallowing, talk with the 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 my child misses a dose?

- Skip the missed dose and go back to your child's normal time unless your child's doctor tells you to do something else.
- Do not give 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 child's symptoms or health problems do not get better or if they become worse, call your child's doctor.

- Do not share your child's drug with others and do not give anyone else's drug to your child.
- Some drugs may have another patient information leaflet. If you have any questions about this drug, please talk with your child's 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

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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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