WHAT ARE THE SIDE EFFECTS OF METFORMIN?

Metformin has few side effects. The most common are:

- **nausea**
- **vomiting**
- **diarrhea**
- **stomachache**

These complaints are not dangerous and will heal over time. However, if they persist or increase, talk to your doctor or pharmacist.

One side effect of metformin is **lactic acidosis**. This is a very rare life-threatening condition. Its symptoms can include:

- severe fatigue and general malaise
- nausea and vomiting
- abdominal pain with muscle cramps
- difficulty in breathing
- reduced body temperature
- slow heart rate.

If you suspect you have lactic acidosis, contact your doctor urgently. When you use metformin for a long time, you may have a **vitamin B12 deficiency**. You can feel tired, have inflammation of the tongue or pale or yellow skin. Therefore, a doctor may recommend that you check your vitamin B12 levels in the blood.

This information is based on the Summary of Product Characteristics of medicinal products containing metformin and:

- https://ptdiab.pl/zalecenia- ptd/zalecania-aktywni-czlonkowie-2023
- https://ihub.scot/improvement-programmes/scottish-patient- safety-programme-spsp/spsp-medicines/high-risk-situations-involving-medicines/medicines- sick-day-rules-card
- Czupryniak L., Płaczkiewicz-Jankowska E., Strojek K.: Leczenie cukrzycy typu 2 -farmakoterapeutyczna rewolucja dokonana. Omówienie stanowiska American Diabetes Association i European Association for the Study of Diabetes 2022. Med. Prakt., 2022; 12: 32-48

DEHYDRATION AND METFORMIN

If you lose too much water from your body (dehydration), it can be dangerous. It may lead to kidney dysfunction and lactic acidosis. If you are vomiting intensely, have diarrhea or infection with high fever, you may be at risk of dehydration. Symptoms of dehydration can include:

- dry mouth, dry eyes
- dry and cold skin
- feeling thirsty, tired, weak
- headaches or dizziness
- possibly dark, strong-smelling urine

If you have these symptoms, don't wait. Contact your doctor or pharmacist immediately. Don't forget to drink enough water.

WHERE CAN I GET MORE INFORMATION ABOUT MY NEW MEDICINE?

For more information see the patient information leaflet (PIL). If you have any concerns about taking this medicine, ask your doctor or pharmacist.

Pharmacist's comments and recommendations

NEW MEDICINE SERVICE

PHARMACEUTICAL CARE

EDUCATIONAL MATERIAL FOR PATIENTS

New Medicine in the Treatment of Type 2 Diabetes

METFORMIN

Drug name		
Drug dose		
Dosage/time of the day		

DIABETES TYPE 2. HOW PHARMACIST CAN HELP

Talk to your pharmacist about diabetes.

The pharmacist will:

- give you advice about medicines. This includes how to use your medicine, worries about side effects or any other questions you have
- show you how to measure your blood glucose using a glucometer
- tell you about lifestyle changes that will make it easier to control diabetes.



You can find more information about a healthy lifestyle in the leaflet, ask your pharmacist for it.

HOW WILL METFORMIN HELP ME WITH DIABETES?

Metformin:

- weakens the absorption of glucose from the intestines
- reduces the amount of glucose being released by the liver
- improves the response of body tissues to insulin – the hormone that controls blood glucose level

It can prevent the complications of diabetes, such as problems with the kidney, blood vessels or nervous system. It also reduces the risk of a heart attack or stroke. Moreover, it helps maintain body weight and can even reduce it a little.

WHAT SHOULD I DO IF I AM ALSO TAKING OTHER MEDICATIONS?

Metformin may interact with other medicines you are taking, which could impact how they work or increase side effects. It is crucial to inform your doctor or pharmacist about:

- any medications you are currently taking including over-the-counter medicines, herbal products, and supplements
- any new medicines you plan to start

CAN I TAKE METFORMIN WHILE PREGNANT OR BREASTFEEDING?

If you suspect you may be pregnant, take a pregnancy test. If the result is positive, contact your doctor immediately.

If you are breastfeeding, you should discuss with your doctor or pharmacist whether you can use metformin.

WHEN SHOULD I CONTACT A PHYSICIAN IMMEDIATELY?

Contact a physician immediately if you experience some of the symptoms of:

- **lactic acidosis**
- **hepatitis** (e.g. fatigue, loss of appetite and weight, yellowing of the skin and the whites of the eyes, or your test results of liver function is abnormal)
- **severe allergic reaction** (swelling of the face, tongue or throat, difficulties in swallowing and breathing)

Attention!
Your doctor may decide to discontinue metformin for a limited period of time if you are facing surgery, an X-ray or a CT scan with iodine contrast.



HOW SHOULD I TAKE METFORMIN?

Metformin is intended for long-term use therapy and may be combined with another medicines lowering blood glucose levels. During treatment, please remember the following rules:

1. Always take metformin exactly as your doctor or pharmacist has told you (check at the first page of this leaflet), preferably at the same time each day.

2. It is best to take metformin during a meal or immediately after it. This might reduce the risk of side effects from the digestive system. The extended release tablets (XR) should be administered once daily with the evening meal.

3. Do not divide, crush or chew tablets unless indicated in the leaflet. If you have any doubts, consult with pharmacist.

4. Take the medicine only with water.

5. If you miss a dose, take it as soon as possible. However, if you have less than 12 hours to the next tablet, skip the missed tablet and take the next one at the usual time. Do not take a double dose to make up for the missed dose.

6. If your blood glucose level is normal, this means the medicine works well. Do not change the dose.

7. This medicine has been prescribed for you only. Do not share it with others. It may harm them, even if their illness is the same as yours.