



Metformin for PCOS

Metformin is a medication that can help with PCOS concerns because it works to lower insulin levels.

How does it work?

Metformin works in several different ways to improve the insulin resistance caused by PCOS:

1. It makes your body more sensitive to insulin.
2. It slows the production of sugar (glucose) from the liver.
3. It decreases the absorption of carbohydrates when they are eaten.

Lower insulin levels can help with improving cholesterol, fatty liver disease, and pre-diabetes. It can also help improve acanthosis, which is a darkening of the skin in certain areas such as the back of the neck.

Because it lowers insulin levels, and insulin makes the ovaries make extra testosterone, some people with PCOS will also have more regular periods when using metformin. Most teens with PCOS will also use hormonal therapy to help with menstrual periods or skin concerns.

How do I take metformin?

It is very important to start with a low dose of metformin and increase slowly.

There are pills that are short-acting and should be taken 2 times per day. There are also extended-release pills that need to be taken only once per day. Metformin should always be taken with food.



What are the side effects of metformin?

Gastrointestinal side effects are most common. It is very important to start on a low dose and not increase the dose until these side effects have gone away.

They can include:

- + Nausea
- + Stomach aches
- + Gas, bloating, and diarrhea

It can help to take metformin with meals and to avoid very sugary foods that can make the side effects worse. Changing to the extended-release pills can also help.

What else do I need to know about metformin?

- + Do not take metformin if you have kidney problems.
- + Do not take metformin if you are fasting, and especially if you are not drinking fluids.
- + If you are using alcohol, do not take metformin if you are having more than 3 drinks at one time.
- + Because metformin can help regulate menstrual period, people with PCOS become more fertile when using this medication. If you are sexually active and not trying to become pregnant, be sure to also use a reliable form of birth control.
- + Metformin can cause lower levels of the vitamin B-12. Consider taking a multivitamin or B-12 supplement when using metformin, especially if you are vegetarian or vegan.



Pediatric and Adolescent Gynecology
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Find out more at: cupag.org/pcos

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How long does it take metformin to work?

- + This is different for everyone, but it can take 6-12 months to help with extra hair and acanthosis. Some people will see improvement in acne after 3 months.
- + It can take 6-months to help regulate menstrual periods.
- + Your doctor will check your labs for pre-diabetes, fatty liver, and cholesterol each year when using metformin.

Can I use metformin to treat PCOS even if I don't have pre-diabetes or weight concerns?

Yes. Metformin has been shown to be helpful for PCOS-related issues even when people do not have pre-diabetes or weight concerns.

Will metformin help me to lose weight?

Most people do not lose weight when using metformin. If they do lose weight, it is usually because they are less hungry and so eat less. Metformin does help improve cholesterol (fat levels in the blood) and can help to reduce fatty liver which are very important to improve overall health.

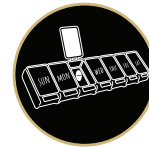
How should I get started?

Your doctor will order metformin to your pharmacy where you can pick up the medication and get started. Some tips for remembering to take your medication are: 1) set a timer on your cell phone, and 2) get a weekly pill box where you can put what you need to take each day.

SET A TIMER ON YOUR CELL PHONE TO REMIND YOU TO TAKE YOUR MEDICATION.



GET A DAILY PILL ORGANIZER AND PUT YOUR MEDICATION IN THIS EACH WEEK SO YOU DON'T FORGET DOSES.

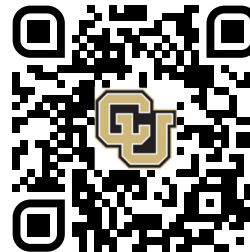


For short-acting metformin:

1. Take a 500 mg once each day. Take with a meal. Do this for 1-2 weeks and do not increase the dose if any stomach aches, gas, or diarrhea.
 2. After 1-2 weeks, take 500mg in the morning and evening.
 3. After another 1-2 weeks, take 500mg in the morning and 1000mg in the evening.
 4. After another 1-2 weeks, take 1000 mg in the morning and 1000mg in the evening.
- Do not increase the dose if you are having any side effects such as stomach aches, gas, bloating, or diarrhea. Stay at the current dose longer and then increase once these side effects have gone away.

For extended-release metformin:

1. After 1-2 weeks, take 1000mg once each day.
2. After another 1-2 weeks, take 1500mg once each day.
3. After another 1-2 weeks, take 2000mg once each day.



Interested in learning more? Check out our PCOS page!



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