



METFORMIN

USE IN POLYCYSTIC OVARIAN SYNDROME

What is PCOS?

Polycystic ovarian syndrome (PCOS) is a hormonal condition in women of reproductive age. It is believed that genetics, hormones and lifestyle factors can contribute to the development of PCOS.

Some women with PCOS can have insulin resistance. This is where the cells in the body stop responding normally to the hormone insulin and do not use the available insulin effectively to keep blood sugar levels stable. In turn, the body reacts by producing more insulin.

Women with PCOS usually have some of the following symptoms:

- Irregular, infrequent or absent periods
- Difficulty becoming pregnant
- Increased testosterone levels resulting in abnormal hair growth, or scalp hair loss, acne, weight gain and insulin resistance
- Mental and emotional health challenges, including depression and anxiety.

How does it work?

Metformin is a medication that was developed for the treatment of diabetes. Unlike other medicines for the treatment of diabetes, metformin does not cause low blood sugar. It helps to make the body more sensitive to the action of insulin so that insulin levels fall.

Metformin often works to help return the body to normal menstrual cycles. It can also reduce your appetite and possibly help with weight loss, and the development of diabetes. Metformin should be used in combination with a diet and exercise program for the best results.

What is the usual dosage?

There are two types of metformin available: immediate release and extended release.

Metformin is best taken during or immediately after a meal to reduce stomach pain, nausea and diarrhoea.

The dose may vary depending on what your doctor prescribes, but taking metformin tablets at the same time each day will have the best effect. It will also help you remember when to take your tablets.

The following table is the recommended dose for the **immediate release** metformin tablets:

Week 1 and 2	250mg ONCE a day
Week 3 and 4	250mg TWICE a day
Week 5 and 6	250mg in the morning 500mg at night
Week 7 and 8	500mg TWICE a day
Week 9 and 10	500mg in the morning 750mg at night
Week 11 and ongoing	500mg in the morning 1000mg at night

The following table is the recommended dose for the **extended release*** metformin tablets:

Week 1	500mg ONCE a day
Week 2	1000mg ONCE a day
Week 3	1500mg ONCE a day
Week 4 and ongoing	Doses may increase to a maximum of 2000mg within a 24-hour period.

* Swallow the tablets whole with a glass of water.

* Do not break, crush or chew the tablets.

What are the side effects?

Nausea, stomach pain, bloating and diarrhoea are the most common side effects of metformin, but these symptoms often go away within the first four to eight weeks after starting the medicine. Increasing the dose slowly, and taking the medicine with food, can help reduce the side effects.

In extremely rare circumstances, metformin can cause lactic acidosis. This tends to occur in patients who may have liver or kidney problems. The symptoms of lactic acidosis are trouble breathing, muscle pain or weakness, feeling weak or dizzy, vomiting and abdominal pain. Tell your doctor immediately if you are experiencing any of these symptoms or any other unusual symptoms. You are encouraged to avoid drinking excessive amounts of alcohol while taking metformin because drinking alcohol may increase the risk of lactic acidosis.

Metformin can reduce the amount of vitamin B12 that gets into the body. For patients who do not have a good diet or who have significant medical illnesses, vitamin B12 levels can be checked before starting metformin, six months after starting treatment, and then every year after that.

How long is the treatment for?

The length of your treatment is based on how you respond to metformin so it is important to be monitored by your doctor on a regular basis.

Do I stop or continue taking metformin after I become pregnant?

The decision to stop or continue using metformin once you have become pregnant should be made after talking to your doctor. Metformin has not been associated with an increased risk of birth defects or complications if taken during pregnancy.

For further assistance and advice

This information sheet only provides a brief introduction to metformin use in patients with PCOS. For more information ask your local pharmacist for the full consumer medicine information for metformin.

Tell your doctor or pharmacist if you are taking any other medication, including any that you buy without a prescription from a pharmacy, supermarket or health food store.

You can also contact the following services at the Women's.

Medicines Information Service

Pharmacy Department

Level 1, Royal Women's Hospital

Cnr Grattan Street & Flemington Road, Parkville

Hours: 9am to 5pm Monday to Friday

T: (03) 8345 3190

E: drug.information@thewomens.org.au

Reproductive Services

Tel: (03) 8345 3200 or (03) 8345 3221

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