



METFORMIN: USE IN POLYCYSTIC OVARIAN SYNDROME

What is PCOS?

PCOS is a hormonal condition which affects women of childbearing age. The cause of PCOS is not completely understood. However, women with PCOS have resistance to the action of insulin. This means that more insulin is produced to try and move the glucose into cells.

Women with PCOS usually have some of the following:

- » 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
- » increased levels of insulin in the blood.

How does it work?

Metformin is a medicine 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. The medicine often works to help return the body to normal menstrual cycles. Metformin should be used in combination with a diet and exercise program for the best results. Metformin may lessen your appetite and possibly help with weight loss.

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 and 500mg at night
Week 7 and 8	500mg TWICE a day
Week 9 and 10	500mg in the morning and 750mg at night
Week 11 and ongoing	500mg in the morning and 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 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 to 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 treatment has not been determined. The treatment should be monitored by your doctor on a regular basis, based on your response to the treatment.

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. If metformin is continued after you become pregnant, there is information to suggest that it is not associated with an increased risk of birth defects or pregnancy complications.

For further assistance and advice

This information sheet only provides a brief introduction to metformin use in patients with polycystic ovarian syndrome. The full consumer medicine information leaflets for metformin can be obtained from any pharmacy. Tell your doctor or pharmacist if you are taking any other medicines, 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 VIC 3052
Hours: 9am to 5pm Monday to Friday
Tel: (03) 8345 3190
Email: drug.information@thewomens.org.au

Reproductive Services

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

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