

# Metformin for Gestational Diabetes Mellitus (GDM)

This handout is for you if you have diabetes while you're pregnant, which is called gestational diabetes mellitus or GDM. Your diabetes doctor may tell you about the medicine metformin to help lower your blood sugar levels while you're pregnant.

## How does metformin work?

Metformin is a pill that helps your own insulin work better to keep your blood sugar levels normal. It won't make your blood sugar go too low. Women who take metformin while they're pregnant usually gain less weight.

Metformin might take longer than insulin to get your blood sugars into target range. Your diabetes team might recommend you take metformin and insulin.

## Is metformin safe for me and my baby?

Metformin has been used safely for many years to treat diabetes in people who aren't pregnant. It's not licensed to use during pregnancy in Canada, but a large study in Australia and New Zealand showed taking metformin during pregnancy was safe for mom and baby<sup>1</sup>. In this study, more women taking metformin delivered their babies early (prematurely) than women taking insulin. But newer studies have not found more early deliveries for pregnant women taking metformin.

Metformin crosses the placenta to the baby. But research shows that children whose mothers took metformin during pregnancy are healthy, with little differences compared to children whose mothers didn't take metformin.<sup>2</sup>

## What are the side effects of metformin?

Some women get an upset stomach, bloating, or diarrhea. These side effects usually get better after a few days. Tell your diabetes team if you continue to have side effects.

## Is metformin right for me?

Your diabetes doctor will help you decide if metformin is right for you. Your diabetes team is here to help you as you continue to eat healthy, exercise, and use the right medicine to keep your blood sugar levels normal for you and your baby.

## How do I take metformin?

Take metformin with food. Your doctor will prescribe metformin as a 500 mg tablet. Your dose will go up slowly to help with side effects. You may start by taking a half to 1 tablet a day and slowly take up to 4 pills a day (at most).

Your diabetes team will fill in the table below, so you know how much metformin to take and when to take it:

	<b>Breakfast</b>	<b>Lunch</b>	<b>Supper</b>
<b>Day 1, 2, 3</b>	_____ mg	_____ mg	_____ mg
<b>Day 4, 5, 6</b>	_____ mg	_____ mg	_____ mg
<b>Day 7, 8, 9</b>	_____ mg	_____ mg	_____ mg
<b>Day 10 onward</b>	_____ mg	_____ mg	_____ mg

If you feel side effects such as an upset stomach or diarrhea at any dose, go back to the lower dose and call your diabetes team.

## When will I stop taking metformin?

You'll stop taking metformin when you have your baby.

### References

1) Rowan J et al. Metformin versus insulin for the treatment of gestational diabetes. *N Engl J Med* 358:19.May 2008

2) Janet A Rowan, Elaine C Rush, Lindsay D Plank, Jun Lu, Victor Obolonkin, Suzette Coat, William M Hague Metformin in gestational diabetes: the offspring follow-up (MiG TOFU): body composition and metabolic outcomes at 7–9 years of age *BMJ Open Diab Res Care* 2018;6:e000456. doi:10.1136/bmjdr-2017-000456

Endocrinology and Metabolism Program, Calgary Diabetes in Pregnancy Clinics.