Medication Options for GDM

The most important part of treating GDM is to eat the right amount of healthy food and be active. The diabetes team will discuss with you the best way of doing this.

It is also important to see how treatment is affecting your blood sugar levels, so keep testing each morning before you eat and after each meal. Again, the diabetes team will explain what glucose levels they want you to aim for and the timing of your tests.

If your sugar tests remain elevated, this tells us that too much sugar is going to your baby. Like anyone who is fed too many sweet foods, the baby may become unhealthy.

So what can we do to try to prevent this and keep your pregnancy as normal as possible?

Firstly, it is very important that you DO NOT starve yourself to try and bring your sugar levels down further. Your baby needs a balanced diet. If you restrict your carbohydrates (the name for sugars that are all bound together in foods such as bread, rice and pasta) too much, your body will not function normally. Ketones build up in the blood and this may not be good for the baby.

Insulin

Your sugar level is higher than usual because pregnancy hormones stop your insulin from working well. Your body cannot make enough extra insulin to keep your sugar level down.

By taking extra insulin by an injection just under the skin, the sugar level will come down.

- Some women only need background insulin that works overnight to bring the sugar level down in the morning.
- Some women need mealtime insulin to stop the sugar level rising too much after a meal.
- Many women need both types of insulin and may require 4 injections a day.

Most women are anxious about the idea of insulin, but they are surprised how easy it is to give, and the injection is much less sore than the finger-prick tests.

Insulin goes into your body to reduce the sugar level, but does not cross to the baby. If the dose of insulin is right for you (and everyone needs a different amount) the sugar level in your blood will improve and this means that a more healthy amount is going to the baby.

It is important that insulin is balanced with your food and activity. If the balance is not right, the sugar in your blood will remain too high or drop low. If it drops low, your body will have symptoms of hypoglycaemia. The diabetes team will teach you how to recognise and treat this.

If you need insulin, we stop the treatment when you are in labour or when you stop eating before a caesarean section. Your body does not become dependent on insulin.

Metformin

Metformin is a tablet that has been used for over 50 years to treat diabetes outside of pregnancy. It works by helping your own insulin do its job better – so that you are able to keep the sugar level down more easily. One advantage of metformin compared with insulin is that metformin does not make the sugar drop too low (does not cause hypoglycaemia).

Between 2002 and 2006, the largest trial was undertaken in New Zealand and Australia comparing metformin with insulin in women with GDM. These trials have been important to confirm the safety

of metformin in pregnancy, as metformin crosses the placenta to the baby. The main outcomes related to the health of the baby at birth and after birth. The outcomes were almost exactly the same in women who had taken metformin and women who were given insulin.

There were minor differences. In women who were given metformin, fewer babies had very low blood sugar levels after birth and slightly more women went into labour before 37 weeks. Other pregnancy outcomes were no different.

Children were followed up at 2 years of age and later at 7 years and 9 years and there were no differences in body fat, blood pressure or brain development of children.

Metformin is not as strong as insulin, so in the large trial over 40% of women treated with metformin required some insulin as well. These women were able to take a lower dose of insulin than women treated with insulin alone. In women who took metformin, alone or with insulin, their weight gain was less than women who took insulin alone.

Is Metformin right for me?

Metformin is not an option for everyone, and you would need to check with your doctor or diabetes midwife whether it would be a good choice for you. There are certain medical conditions or pregnancy complications that mean insulin would be a better choice. Our diabetes team is experienced with using metformin in pregnancy and can tell you whether you are likely to need insulin as well as metformin. If you decide to take metformin, your doctor may recommend that you also start some insulin. In this situation, you may only need 1 or 2 injections instead of 4 injections a day.

Are there any side effects?

- Some women (two out of every 10) experience side effects, typically diarrhoea, when they first start metformin. This usually settles within a few days of starting treatment.
- We try to reduce this problem by starting with a low dose and increasing it (up to a dose of 2,500mg/day) until the sugar levels are in range. This usually takes 1-2 weeks.
- Metformin should be taken with food in the stomach so we recommend it is taken during or immediately after eating.

It is important to achieve a healthy level of sugar in your blood for your baby.

Sometimes a healthy diet and staying active is not enough. Insulin or metformin (or both) can help you reach your target. Talk with your diabetes team to help you make the best decision for you and your baby.