

INFORMATION SHEET GESTATIONAL DIABETES

What is gestational diabetes?

When you have diabetes, the regulation of your blood sugar levels is disturbed. The amount of sugar in your blood is regulated by insulin, which is a hormone. Your body needs insulin to transport sugar, which enters your bloodstream via food, to your cells. If your body is unable to do this properly because it doesn't produce enough insulin, you have diabetes.

When you are pregnant, your body produces different hormones than usual. These hormones make the body temporarily less responsive to insulin. During a normal pregnancy the body produces extra insulin to sustain blood sugar levels. With gestational diabetes, this doesn't happen, or doesn't happen sufficiently. As a result your blood sugar levels will remain too high.

Is gestational diabetes dangerous?

Untreated gestational diabetes can have serious consequences for both you and your baby. Because sugar stays in your blood, your baby receives a large amount of sugar via the placenta. This causes the baby to produce more insulin to break down the sugars, and convert them into fat. This fat is stored in the tissues and therefore your baby grows too fast and becomes too heavy. If your baby is overweight, it is more likely that you will be in labour longer and chances of having an artificial delivery (vacuum pump delivery or caesarean section) or complications increase.

Large fluctuations in blood sugar levels can cause the baby's lungs to mature more slowly. Furthermore, children with a high birth weight appear to have a greater risk of developing diabetes themselves later in life.

Because the baby also receives blood sugars via the placenta, it will produce more insulin to lower these sugar levels. After delivery, the baby has to sustain sugar levels on its own. This is often difficult for babies born to mothers who have had untreated gestational diabetes.

Because the blood supply from the placenta to the baby stops, the high blood sugar levels in the blood drop, but the extra insulin the baby has produced will not drop as quickly. Because the baby has more insulin, even more sugar is broken down, causing the sugar levels in the blood to become too low. If the baby's blood sugar is too low, this can harm the baby's brain.

Gestational diabetes is a temporary form of diabetes and usually disappears immediately after delivery. However, it is important to remain vigilant. In the first 5 years after pregnancy the chance of developing permanent diabetes is 40 to 50% higher than for women who have not had gestational diabetes. If you have had gestational diabetes, there is also a chance that you will develop it again in subsequent pregnancies.

Research and treatment

Gestational diabetes is detected by a blood test. This test is called Oral Glucose Tolerance Test (OGTT). In this test you drink a drink with a high sugar content, after which your blood is tested. Usually the first test takes place in the 24th to the 28th week of pregnancy. If you have had gestational diabetes previously, a test will also be done before the 16th week. In some cases, the test is also done or repeated later in pregnancy. If the blood sugar levels on an

empty stomach or the blood sugar levels after the OGTT are too high, you have gestational diabetes. If you have been diagnosed with this, you will receive nutritional and exercise advice to bring blood sugar levels back to normal. You will need to measure your blood sugar levels with a glucose meter several times a day. The growth of the baby will also be monitored by ultrasounds. When you follow this advice, blood sugar levels often return to normal. If, despite dietary and exercise advice, blood sugar levels do not remain at the right level, it may be necessary to inject insulin.

Nutritional and exercise advice

The sugar in your blood comes mainly from the food you eat. During digestion glucose (sugar) is formed from carbohydrates. Carbohydrates is the collective term for:

1. Starch: bread, potatoes, rice, couscous, legumes and pastas contain starch.
2. Lactose (milk sugars): all types of milk (and milk products), including unsweetened types such as regular milk, buttermilk, yogurt and cottage cheese/soft cheese.
3. Fructose (fruit sugars): these are found in fruits, juices and purees, even the unsweetened varieties.
4. Sugar: cake, pastry, ice cream, sweets, liquorice, soft drinks, etc.

To ensure that your blood sugar levels do not get too high, it is important to distribute the amount of carbohydrates you eat evenly over the day. Allow about 1.5 to 2 hours between meals and carbohydrate snacks. This way, a small amount of sugar always enters your blood and thus preventing spikes in your blood sugar levels. The target values are <5.3 mmol/l before breakfast and <7.8 mmol/l 1 hour after the start of the meal. Aim for 3 main meals a day and 3 to 4 snacks in between.

- Only take one product that contains starch with a hot meal: potatoes OR brown rice OR wholemeal pasta OR couscous OR plantain OR beans/legumes OR roti OR bread, and so on.
- Choose drinks without sugar: water, tea or coffee (in moderation).
- Unsweetened or fresh fruit juices contain fruit sugars and are not a good alternative to soft drinks.
- Choose savoury sandwich fillings: low-fat cheese or cold cuts, peanut butter, salads, sandwich spread, olives, tapenade, fish, vegetable spreads, nut spreads, avocado, etc.

It is NOT a good idea to consume minimum carbohydrates per day! Your diet might then become unbalanced.

Advice in case of an increased fasting blood sugar level or to prevent an increased fasting blood sugar level:

Not eating for more than 8 to 10 hours can cause the liver to release blood sugars. This process can lead to an increased fasting blood sugar level. Therefore, try not to fast for more than 8 to 10 hours. For example, eat a whole grain cracker with toppings or some yogurt with nuts and fruit before going to sleep. Try to have breakfast right away in the morning, preferably within 30 minutes of waking up.

Exercise

When your blood sugar levels are too high, extra exercise helps you to burn sugars faster. Your muscles need more fuel during activity and the first thing that is burned are the sugars present in your blood. So when you do extra exercise, your sugar levels also drop faster. We therefore advise you to exercise for at least 30 minutes every day (active walking/cycling) and follow these rules for extra exercise:

- Take the stairs instead of the elevator.
- Use your bike or walk instead of using public transport.
- Go for a walk after meals.
- Try to swim once or twice a week and do at least 15 to 20 laps.