

For those with gestational diabetes

What is gestational diabetes?

Elevated blood sugar detected during pregnancy is called gestational diabetes. The risk of gestational diabetes increases with the length of the pregnancy and is highest in the last trimester of the pregnancy.

Why do you get gestational diabetes?

Insulin is a hormone produced by the pancreas. One of the main effects of insulin is to manage the sugar in the blood. Hormonal changes during pregnancy mean that the body gradually becomes increasingly insensitive to the blood sugar-lowering effect of insulin, so-called insulin resistance. The body tries to compensate by producing more insulin. If the body is unable to sufficiently increase insulin production, blood sugar levels become elevated.

How is the diagnosis made?

The diagnosis is made using glucose loading, a so-called glucose tolerance test or blood sugar curve. The test involves drinking a sugar solution containing 75 grammes of glucose (a simple sugar) and measuring blood sugar at a set number of times during the test. Glucose levels above a certain threshold indicate gestational diabetes. Glucose loading is done if blood sugar levels are too high at the visit to the midwife or if the pregnant person has risk factors for developing gestational diabetes.

Who is affected by gestational diabetes?

In Stockholm, the rate of gestational diabetes in different parts of the region varies between 4%-18%. Those who have a family history of diabetes, are physically inactive, overweight or gain a lot of weight during pregnancy are at increased risk. A history of gestational diabetes or giving birth to large children also increases the risk.

What are the risks of high blood sugar during pregnancy?

High blood sugar can affect the foetus throughout pregnancy. Sugar passes easily through the placenta. When blood sugar is high in the pregnant person, it is also high in the foetus, which increases its production of insulin, causing the foetus to gain weight faster than usual. The increased insulin production in the foetus also explains why the baby may have low blood sugar immediately after birth and therefore need extra feeding with hand-milked colostrum or formula.

See patient information: **Breast milk stimulation during pregnancy** for more information. With normalised blood sugar levels, the prognosis for mother and baby is very good.

How is gestational diabetes treated?

The aim of the treatment is to normalise blood sugar levels. This is achieved primarily by

- a customised diet
- daily physical activity

- abstaining from tobacco use

The diet should be low in fast carbohydrates but high in vegetables and fibre. It is important not to eat too large portions and to distribute meals evenly throughout the day. This avoids high blood sugar spikes and conserves insulin reserves.

See patient information: **Diet for gestational diabetes.**

A brisk daily walk or equivalent also helps to reduce insulin requirements by increasing insulin sensitivity. The beneficial effect of exercise on blood sugar comes almost immediately and lasts throughout the day. Sometimes treatment with a customised diet and increased exercise is not enough, and drug treatment with an injection of insulin or a tablet of Metformin is needed.

Metformin passes through the placenta and works by increasing the body's sensitivity to insulin so that less insulin is needed to achieve normal blood sugar levels.

Sometimes treatment needs to be supplemented with additional insulin, or the assessment is made that insulin treatment should be started immediately.

Insulin does not pass through the placenta and does not reach the foetus. Insulin doses may need to be increased during pregnancy as insulin resistance increases.

It is important to continue daily glucose monitoring throughout the pregnancy to inform the adjustment of insulin doses.

What happens after childbirth?

In the vast majority of cases, treatment with insulin and Metformin can be stopped immediately after delivery, when the body's need for insulin decreases again. It is important to measure your blood sugar a few days after giving birth to make sure your blood sugar levels are good. After the baby is born, the baby's blood sugar is checked repeatedly during the first few days. It is important to start breastfeeding quickly after delivery to avoid low blood sugar in the baby. If necessary, hand-milked colostrum or formula can be given to the baby.

What are the long-term risks?

Getting gestational diabetes means having a reduced reserve capacity to produce insulin. The body's ability to produce insulin cannot be influenced, but through a healthy lifestyle, insulin resistance can be avoided so that insulin production is sufficient. After pregnancy, it is good to normalise your weight and stay physically active and tobacco-free. This can prevent the onset of Type 2 diabetes later in life (50% risk). This is why it is important to have further follow-up via your health centre after completion of your pregnancy.