



**Wolverhampton
Diabetes Care**

Pregnancy in women who already have diabetes treated with insulin

Before pregnancy?

Most women with diabetes have healthy pregnancies and babies. There are some increased risks to mother and baby but these can be thought about and usually dealt with in advance. It really important to know that good diabetes control before and throughout pregnancy will improve your health and that of your baby.

Before pregnancy?

Use effective contraception and plan pregnancy. Deal with general health issues such as you diet, fitness, weight and especially alcohol and smoking. Try to achieve good diabetes control before pregnancy; babies are at a greater risk for birth defects and miscarriage otherwise. Find out if there are any risks to your health because of blood pressure, eye or kidney problems which can worsen in pregnancy. Certain medications should be adjusted or stopped before you fall pregnant – especially certain blood pressure treatments. You should be seen by the specialist diabetes team before you become pregnant so that everything can be checked; the diabetes control assessed and plans for the future pregnancy agreed.

What diabetes control should I aim for before becoming pregnant?

Aim to get your blood glucose is as good as possible for at least three months before you try to become pregnant. This means a blood sugar of 4-7 mmol/l before meals and an HbA1c (long term test) of 7% or less.

When pregnant?

Report straight away to you medical team so that early specialist diabetes antenatal care can be planed.

Does pregnancy affect my insulin dose?

For good blood glucose control you may need extra insulin injections and your overall insulin dose will usually increase by about 50%.

What about hypos?

In pregnancy it is not uncommon to experience mild hypos more frequently and you may find that warning symptoms are different from usual. If you have any problems dealing with hypoglycaemia, or any severe attacks of hypoglycaemia be sure to report this to the diabetes specialist team straight away.

Can follow a regular exercise plan?

Exercise plays an important role in keeping your blood glucose under control before and during pregnancy. Gentle exercise like walking and swimming are recommended.

What about clinics?

You will be asked to attend the hospital frequently for assessment by both the diabetes and the obstetric teams. Initially you will be seen every 2-4 weeks but later in pregnancy you will be seen every week. At around 19 weeks you will have a detailed ultrasound scan to check your baby's size and development. From around 26 weeks the baby will begin to put on weight; it is important to keep your glucose control as near normal as possible at this time to avoid the baby growing too large or being too small.

Can I have a normal delivery?

The aim is to try for a normal labour and delivery where possible. Sometimes if the baby has become overweight or your blood pressure goes up, the obstetrician may wish to induce labour early. Ask your obstetrician or midwife about how this will be done in your case. During labour your insulin and calories will be given in a 'drip' containing glucose and insulin. The amount of insulin will be adjusted every hour depending on your blood tests. The drip will continue until after the baby is born.

After delivery?

After delivery of your placenta, your insulin needs will drop dramatically. You may be kept on an intravenous insulin/glucose drip for a few hours after delivery and your insulin dose will be adjusted as needed. Your blood glucose will be checked regularly after delivery, until your levels stabilise. When you resume your normal diet, you should return to your pre-pregnancy insulin dose.

What does this all mean for the baby before and after birth?

Having high blood sugar can affect the baby's growth in the womb. This can cause the baby to grow larger, which can sometimes make delivery difficult but it can also slow down the baby's growth and both can affect development.

Shortly after birth, the baby may continue to make extra insulin even though high levels of blood sugar are no longer present. This may cause the baby to have low blood sugar (hypoglycaemia). About half of all babies born to mothers with diabetes may be hypoglycaemic at birth. Your baby's blood glucose will be regularly measured soon after birth, every hour for the first 3 hours, and then every 6 hours for the first 24 hours after birth. If it is low it will be treated straight away.

Usually the hypo is easily treated by feeding the baby straightaway, including breast feeding. If the hypo is more severe, your baby might need a glucose drip into a vein. The hypo generally does not harm the baby.

It is more likely that the newborn baby will develop jaundice. This usually fades over a few days, without the need for medical treatment. Some babies may need photo light treatment for jaundice in the first few days after birth.

Sometimes newborns, particularly if born early, can have breathing problems because their lungs have not fully matured. Again, this usually clears up with time. Extra oxygen may be needed at this time but only for a few days.

There is a very slightly higher risk of still birth, but if the glucose levels are reasonably controlled throughout pregnancy, this risk is much lessened and is rare.

Will my baby be taken away to a special baby unit at birth?

Babies born to mothers who are treated with insulin do not go to the special care baby straight away after birth, they stay with their mothers and are observed there. Only babies with breathing problems or low blood sugars that need a drip need go to the special baby unit.

Will my baby be diabetic?

It is unlikely that your baby will become diabetic. The inheritance of diabetes is very complicated even close relatives have only a slightly higher than normal chance of becoming diabetic. Your baby should behave and develop like any other baby. For people with a history of diabetes starting in older life, keeping your children fit and healthy with a good diet and plenty of exercise is the best way to prevent diabetes in much later life.

After your pregnancy?

You have just delivered a beautiful baby and you should feel proud of the effort you have made. With baby's arrival, your focus turns to caring for your little one. But keep in mind that to take good care of your baby you need to take good care of yourself. Stick to your habits that helped you keep your blood glucose levels on target during pregnancy. Even so, for many, it is a period of odd blood glucose swings.

Seeking advice and what care to expect

Seek advice early from your medical team and involve them in contraception and pregnancy planning. Women with diabetes planning pregnancy should be under the specialist diabetes team as soon as they know they want to plan a pregnancy or as soon as they know they are pregnant – ask to be referred if you are not. You should have a full preconception check for your blood sugar control and diabetes complications and full advice and support throughout. During pregnancy you will be in a special antenatal clinic run jointly by the maternity and diabetes services. You should know exactly who your specialist diabetes and antenatal team are. Your diabetes, blood pressure, eyes and kidneys will be closely reviewed and discussed with you – as well as keeping a good on baby's progress. You should have a delivery plan made well in advance and you should be confident of how your diabetes will be managed during labour. You should know how you will be followed up after delivery. You can ask to see all of the standard care plans that held by the specialist teams that tell you what will happen at various stages of pregnancy. You should always know what the plan of action is – ask if you don't.