



Diabetes and pregnancy: what you need to know

Information for women, birthing people, and their families

If you are reading this leaflet, you are either pregnant or planning to be pregnant, and have:

- type 1 diabetes (when your body is unable to make its own insulin); or
- type 2 diabetes (an acquired condition, where your body does not respond normally to insulin. Termed insulin resistance).

How can I prepare for pregnancy if I have diabetes?

Having diabetes can mean that you and your baby are more at risk of serious health complications during pregnancy and childbirth. The best way to reduce the risks to you and your baby is to ensure your diabetes is well controlled before you become pregnant. Ideally, your pregnancy should be planned. With input from your GP or diabetes specialist, so they can provide you with the correct advice.

- **HbA1c.** You should be offered a blood test, called a HbA1c test, every month. This measures the level of glucose in your blood. It is best if the level is no more than 6.5% before you get pregnant. If your blood glucose level is above 10%, your care team should strongly advise you not to try for a baby until it has been controlled.
- **Blood sugar levels**. You will also need to check your blood sugar levels more regularly at home. You should be advised to check for ketones as well, especially if you are unwell and your blood sugars are high. Your diabetes team can help you set and reach these targets. They may be different depending on your situation. Examples of some targets to aim for:
 - $\circ~$ when you wake up and have not eaten yet 5 to 7 mmol/l ~
 - before meals at other times of the day 4 to 7 mmol/l
 - 90 minutes after meals 5 to 9 mmol/l.

For more information on ketones, please visit the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/ketones-and-diabetes).

- Folic acid. If you have diabetes and are trying to get pregnant, you should take 5mg of folic acid each day (until you are 12 weeks pregnant). A doctor prescribes these because you cannot buy 5mg tablets without a prescription. Taking folic acid helps to prevent your baby developing birth defects, such as spina bifida (where the spine does not develop properly). For more information on spina bifida, please visit the NHS web site (https://www.nhs.uk/conditions/spina-bifida/).
- Medication review. Some diabetic medications are not safe to take when you are planning a
 pregnancy. You will need to get advice from your GP or nurse about which ones to stop. Metformin and
 insulin are safe to take. For more information on diabetes tablets and medication, please visit the
 Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/treatingyour-diabetes/tablets-and-medication).

If you are taking certain medications to treat other health conditions, you might need to stop these too. These include: statins, ACE inhibitors, and other blood pressure tablets. **Always** check with your doctor or diabetes specialist before stopping any medication. For more information on statins and diabetes, please visit the the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/managingyour-diabetes/treating-your-diabetes/tablets-and-medication/statins).

• Eye and other screening. Pregnancy can make some diabetes complications worse, such as eye and kidney problems. For more information on complications of diabetes, please visit the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/complications).

It is important to have eye screening and tests for your kidneys before you stop using contraception. Eye problems caused by diabetes (diabetic retinopathy) can be treated if caught early, so screening is important. Your diabetic team can arrange this, and they will talk to you about your results. In some cases, you may be referred to a specialist team for extra support.

- Healthy lifestyle. Eating well, cutting down on drinking alcohol, quitting smoking, and getting active.
- **Get support.** You are not on your own, there is lots of support to help you. You will get this from your healthcare team, but talk to your family and friends too. For more information on support during your pregnancy, please visit the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/pregnancy#support).

How can diabetes affect me and my baby during pregnancy?

There are risks involved for you and your baby. You can reduce the risk of complications by monitoring your blood sugar levels and meeting your targets. This will increase your chances of a healthy pregnancy. Your midwife, doctors, nurses, and dietitians will work with you.

If you have diabetes, you may be at a higher risk of:

- Miscarriage.
- Congenital malformations. Your baby may be born with serious health problems, such as spina bifida or heart abnormalities.
- Your baby growing larger than usual. This could lead to difficulties during the delivery. This may also increase the chances of having your labour induced or a caesarean section.
- Polyhydramnios. There is a possibility of developing too much fluid surrounding the baby. This can cause premature labour or problems during delivery.

- Shoulder dystocia. Your baby's shoulder gets stuck during birth after delivery of the head.
- Your baby having low blood glucose levels (neonatal hypoglycaemia).
- Still birth.
- Perinatal death. Your baby dying at around the time of the birth.
- Your baby needing extra care after their birth, possibly in a Neonatal Unit.
- Your baby having a higher risk of being overweight or obese and / or developing type 2 diabetes in later life. Managing your child's weight, eating healthily, and keeping them physically active will help to reduce this risk.
- There is an increased likelihood of premature labour (giving birth before 37 weeks).
- There is a risk of developing high blood pressure during pregnancy.
- You may have problems with your eyes and kidneys.

You may already know about driving with diabetes. Please refer to UK government advice on driving with diabetes (https://www.gov.uk/diabetes-driving) for further details.

What extra care is needed during my pregnancy?

If you have a confirmed diagnosis of type 1 or type 2 diabetes, you need to tell your GP you are pregnant immediately, so that you can be referred to specialist services. The first eight weeks of pregnancy are when your baby's major organs are formed. It is important to maintain healthy blood glucose levels to help their development.

• **Specialist healthcare team**. You will be under the care of a specialist healthcare team. You will be advised to have your baby in a hospital on a Consultant-led Maternity Unit or Neonatal Unit. This healthcare team may include a doctor specialising in diabetes, an obstetrician, a specialist diabetes nurse, a specialist diabetes midwife, a dietician, and your community midwife.

You are at increased risk of developing pre-eclampsia. You will be advised to take 150mg aspirin daily from 12 weeks onwards.

• Healthy eating and exercise. It is important for you and your baby that you follow a healthy, balanced diet and exercise regularly. For more information on a healthy, balanced diet for diabetes, please visit the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes/what-is-a-healthy-balanced-diet).

Being sick is common, particularly in early pregnancy. This can cause problems with your blood sugar levels. If you use insulin, this means you are more likely to have hypos. If you are struggling to keep food down, contact your diabetes team for advice. They may be able to prescribe medication to help with sickness.

Here are some things you can try too:

- Eat small, regular, carbohydrate-containing snacks. Try soup and crackers or plain biscuits.
- Sip drinks like water little and often, rather than large amounts all in one go.

- If you do not feel like eating, drink a sugary drink. This can help you avoid a hypo if you take insulin.
- Get plenty of rest.

If you are being sick repeatedly or have a high level of ketones in your blood, speak to a doctor straight away. This is to stop the ketones from harming your baby. For more information, please visit the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/enjoy-food/eating-with-diabetes/what-is-a-healthy-balanced-diet).

- **Monitoring your blood glucose.** You must keep your blood sugar at the target levels agreed with your team. You will need to check them more regularly. Your individual targets may be different, but you will generally be aiming for these:
 - When you have not eaten below 5.3 mmol/l
 - One hour after eating a meal below 7.8 mmol/l, or two hours after meals below 6.4 mmol/l.

If you treat your diabetes with insulin, maintaining good blood sugar levels means you are less likely to have hypos. Please make sure you always have something with you to prevent or treat a hypo. Try to keep your sugar level above 4 mmol/l. For more information on hypos, please visit the Diabetes UK web site (https://www.diabetes.org.uk/guide-to-diabetes/complications/hypos).

If your blood sugar levels are too high or you feel unwell, see a doctor or call Maternity Triage straightaway. The Maternity Triage contact details are on your lilac notes.

You should be given blood ketone testing strips and a meter. You will be advised to test if you feel unwell or your blood sugar is high.

• Using diabetes tech. If you have type 1 diabetes and are pregnant you should be offered real-time continuous glucose monitoring (CGM) free on the NHS.

If you are pregnant, on insulin and have type 2 diabetes, CGM should be considered for you:

- if you have severe hypos (regardless of your awareness); or
- if you have unstable blood sugar.

A CGM allows you to check your sugar levels at any time. It shows you patterns in your levels, and sends you an alert if your sugar levels are too high or low. CGM can help you achieve the best glucose levels possible. Therefore fewer complications for your baby. Your baby is less likely to be admitted to a Neonatal Intensive Care Unit (NICU). If they are, their stay should be shorter. For more information, please read the NHS leaflet Your guide to using Continuous Glucose Monitoring (CGM) during pregnancy (https://diabetes-resources-production.s3.eu-west-1.amazonaws.com/resources-s3/public/2020-11/CGM%20patient%20infographic.pdf).

• **Diabetes treatment in pregnancy.** Your doctors may recommend changing your treatment regime during pregnancy. If you usually take tablets to control your diabetes, you will normally be advised to switch to insulin injections. This may be with or without a medicine called metformin.

If you already use insulin injections to control your diabetes, you may need to switch to a different type of insulin.

- **Eye and other screening.** You will be advised to get your eyes and kidneys checked at your first antenatal appointment, unless it has been done in the last three months. Eye screening should be repeated at 28 weeks if your first screening was normal, earlier if there are any concerns.
- **Monitoring your baby**. You should be offered scan at 20 weeks. This is to detect fetal structural abnormalities, including examination of the fetal heart. You will have extra scans to monitor your baby's growth more closely. You must report slowing down or changes in the pattern of your baby's movements.

What are my birth options?

Your healthcare professionals will discuss your birth options with you during your pregnancy. The options include:

- waiting for labour to start
- having an induction of labour; or
- having a planned caesarean birth.

This will depend on your individual circumstances and preferences. Your midwife or doctor will discuss the risks and benefits of each option with you. You will be advised to have your baby in a hospital Consultant-led Maternity Unit and Neonatal Unit, before 38 weeks plus six days of pregnancy. If there are pregnancy complications affecting either you or your baby, your healthcare team may recommend birth earlier than this.

What happens in labour?

It is important to control your blood glucose levels throughout labour and birth, to avoid problems for your baby after birth. Your blood glucose will be monitored hourly. You may need an insulin drip to control your blood glucose level.

What happens after my baby is born?

- You may need to adjust your medication now you have given birth. Dose and plan should have been discussed earlier with you by your diabetic team and written in your notes.
- Your baby will stay with you unless they need extra care. Occasionally they may need to be looked after in a Neonatal Unit, if they are unwell or need extra support.
- Your baby should have their blood glucose level tested a few hours after birth, to make sure that it is not too low.
- You will be asked to stay in hospital for at least 24 hours, so we can observe your baby. There is an increased risk of hypoglycaemia during this period, especially when breast feeding. Please keep a snack available.

Babies born to mothers with diabetes have a risk of having low sugar levels after birth. You can either choose breast feeding or formula feeding. Whichever you choose, you should start feeding as soon as possible after birth. Then every two to three hours, this will help your baby's blood glucose stay at a safe level.

In addition to breastfeeding, you may be advised to hand express and give your baby this early breast milk (also called colostrum). It is safe to express colostrum in pregnancy from 36 weeks onwards, and to store it for use after giving birth. Ask your healthcare team for more information.

Your checklist for pregnancy with diabetes

Planning for a baby? Do not let diabetes get in the way.

- Make sure you keep diabetes under control three to six months before you plan to get pregnant. Start taking 5mg of folic acid. Get your medication reviewed and kidneys and eyes checked.
- Once pregnant see your GP as soon as possible, so a scan can be organised, your medications can be reviewed, and aspirin can be started.
- Get to know your healthcare team and what they do. Maintain a diary and come to your appointments regularly.
- Ask for advice about continuous glucose monitoring and agree your targets with your healthcare team.
- Talk to a health professional about your diet and exercise during pregnancy.
- Make sure you know what to do if your blood sugars are too low or too high, or ketones are present. Find out who to call if you need extra help and support.
- Make sure you discuss your options for the type of birth you can have, and the timing of delivery and contraception.
- Ask about colostrum collection.
- Make sure you understand doses of your medications for the postnatal period, and which medications are safe if you plan to breast feed.

If you would like this information in **another language, audio, Braille, Easy Read, or large print** please ask a member of staff. You can ask someone to contact us on your behalf.

Any complaints, comments, concerns, or compliments please speak to your doctor or nurse, or contact the Patient Advice and Liaison Service (PALS) on 01227 783145 (tel://+441227783145), or email ekh-tr.pals@nhs.net (ekh-tr.pals@nhs.net)

Patients should not bring large sums of money or valuables into hospital. Please note that East Kent Hospitals accepts no responsibility for the loss or damage to personal property, unless the property has been handed into Trust staff for safe-keeping.

Further patient leaflets are available via the East Kent Hospitals website (https://www.ekhuft.nhs.uk/information-for-patients/patient-information/).

Reference number: Web 700

First published: January 2024 Last reviewed: January 2024 Next review date: May 2027

Copyright © East Kent Hospitals University NHS Foundation Trust.