



Oral glucose tolerance test (GTT) during pregnancy

Information for women, birthing people, and their families

This leaflet provides information on the oral glucose tolerance test (GTT) during pregnancy. If after reading this you have any questions or concerns, please speak to your midwife.

- **Appointment date:** _____
- **Appointment time:** _____
- **Location of test:** _____

If you are unable to attend on the above date or time, please email your midwifery team as soon as possible so that they can rearrange.

What is an oral glucose tolerance test (GTT)?

A GTT is a test that checks if your body can use and store glucose (sugar).

Blood samples will be taken before and after a glucose (sugary) drink. The test checks the level of blood glucose (sugar) in your body. The drink will be very sweet and can sometimes make you feel a little nauseous (sick).

Why do I need a GTT?

You may have been advised to have a GTT if:

- Your body mass index (BMI) is more than 30.
- Your previous baby weighed over 4.5kg or above the 95th centile.
- You had gestational diabetes in your previous pregnancy
- You previously had an unexplained neonatal death and / or stillbirth.

- You have a first degree relative with diabetes. A first-degree relative is a mother, father, sister, or brother.
- You have a minority ethnic family origin, with high prevalence of diabetes. This includes African, Asian, Hispanic, Caribbean, and Middle Eastern origins.
- You have a history of polycystic ovary syndrome (PCOS).
- You are taking anti-psychotic medication. For example:
 - Quetiapine, Olanzapine, Risperidone or Clozapine, Haloperidol, Chlorpromazine, Trifluoperazine, Aripiprazole.
- You have glucose in your urine. 2+ or above on one occasion, or of 1+ on two or more occasions.
- Polyhydramnios (AFI> 23 cm) has been diagnosed on ultrasound. Polyhydramnios is when there is an increased amount of amniotic fluid during pregnancy. Amniotic fluid is the fluid that surrounds the baby in the womb. You will not need a GTT for polyhydramnios with a twin pregnancy.
- Estimated fetal weight above the 90th centile.

Who cannot have an oral GTT?

You cannot have an oral GTT if you have had bariatric surgery (weight loss surgery). This includes:

- a sleeve gastrectomy (gastric sleeve), or
- a gastric bypass.

Bariatric surgery changes the way that your body absorbs the nutrients that you eat.

An oral GTT puts you at increased risk of 'dumping syndrome'. This is because an oral GTT requires you to drink glucose (sugar). Bariatric surgery causes this sugar to move from your stomach to your small bowel too quickly. This causes gastric dumping syndrome, and can make you unwell.

If you have had gastric / bariatric surgery, please tell your midwife. They will discuss the options available to you. As an alternative, you may be asked to monitor your blood sugar levels before and after a meal.

When will I have the test?

A GTT is usually carried out between 26 to 28 weeks of pregnancy. Your midwife will arrange this for you.

If you had gestational diabetes in a previous pregnancy, the GTT will be arranged for 16 weeks of pregnancy. If the 16 week test is negative, it will be repeated at 28 weeks.

What will the test tell me?

This test will help us to establish a diagnosis of gestational diabetes, which occurs only in pregnancy.

What is gestational diabetes?

- Gestational diabetes is a type of diabetes that affects pregnancy.
- It usually occurs during the second or third trimester.
- Women or birthing people with gestational diabetes do not have diabetes before their pregnancy.
- It usually goes away after giving birth.

What causes gestational diabetes?

Hormones produced during pregnancy can make it difficult for your body to use insulin properly. So being pregnant puts you at an increased risk of insulin resistance.

Pregnancy places a heavy demand on your body. You may not be able to produce enough insulin to overcome this insulin resistance. This makes it difficult to use glucose (sugar) for energy. If glucose remains in the blood and the levels rise, this leads to gestational diabetes.

Gestational diabetes is common. It affects at least 4 to 5 in 100 women or birthing people during pregnancy.

What should I do before I come for my test?

You must fast for at least 8 hours, and not more than 14 hours before your test. This means that from the night before your test:

- you must not eat anything after 11pm
- after 11pm you can **only drink water**
- tea, coffee, or cola can affect the results, so even black coffee and sugar-free (diet) drinks **must be avoided**.

If you have medicine to take in the morning of your test still take this, unless told otherwise by your doctor. If your morning medicine needs to be taken with food, please speak with your midwife or doctor.

On the morning of your test, do not chew gum, vape, smoke or wear a nicotine patch. All of these will affect the results.

What will happen when I have the test?

Your fasting blood glucose level will be checked using a blood sample taken by pricking your finger.

If your finger prick test is below 7mmol

- A blood sample will be taken from a vein in your arm. If you are worried about having a blood test, speak with the midwife looking after you. They will discuss ways to support and reassure you.
- You will then be asked to drink a very sugary glucose drink. The sugary drink contains an exact amount of glucose. **You must finish the whole drink within 5 minutes.** In the unlikely event that you are sick after having this you must tell the staff member immediately. The test will be stopped.

- After having the drink, sit for 2 hours and rest. Do not leave the waiting area during this time, as this may affect your results.
- You can drink water, but do not eat anything. If you do, it will affect your results and the test will be stopped, and rescheduled for another time. You must not vape, smoke, or chew gum while you wait.
- You can bring a book or a magazine to read during your wait. You can also bring a tablet or electronic device if you wish. For the comfort of other patients, please bring earphones rather than using the speaker.
- After 2 hours a second blood sample will be taken. The two blood samples will be sent to the laboratory to measure the amount of glucose in them. You can now eat and drink as normal, and are free to go home.

If your finger prick test level is above 7mmol

- You will have one blood sample taken from a vein in your arm. The test will then be stopped and you can go home.
- You will be contacted by the Maternity Diabetes team within a week of your test. They will explain what happens next.
- This shows that you have gestational diabetes.

How will I feel after the test?

- You should feel no ill effects afterwards. The sugary drink may have made you feel a little sick, if so this should pass quickly.
- Your midwife will find out the results of your test after a few days, and contact you with the results.
- If your results show that you have gestational diabetes, you will also be contacted by the Maternity Diabetes team. They will contact you within a week of your test, and will care for you from this point onwards.
- You will still see your community midwife and consultant (if necessary) through your pregnancy.

Further information

- East Kent Hospitals. **Gestational diabetes: what you need to know** patient information leaflet. (<https://leaflets.ekhuft.nhs.uk/gestational-diabetes-what-you-need-to-know/html/>)

You can speak with your midwife or doctor if you have any more questions.

Useful contacts

If you have any further questions, please contact our Maternity telephone triage service on 01227 206737 for help and advice.

References

- British Journal of Midwifery. Efficacy of oral glucose tolerance testing of pregnant women post bariatric surgery. November 2018.
- Guts UK. Dumping syndrome information leaflet. (<https://gutscharity.org.uk/advice-and-information/conditions/dumping-syndrome/>)

This leaflet has been produced with and for patients.

Please let us know:

- If you have any accessibility needs; this includes needing a hearing loop or wanting someone to come with you to your appointment.
- If you need an interpreter.
- If you need this information in another format (such as Braille, audio, large print or Easy Read).

You can let us know this by:

- Visiting the Trust web site (<https://www.ekhuft.nhs.uk/ais>).
- Calling the number at the top of your appointment letter.
- Adding this information to the Patient Portal (<https://pp.ekhuft.nhs.uk/login>).
- Telling a member of staff at your next appointment.

Any complaints, comments, concerns or compliments, please speak to a member of your healthcare team. Or contact the Patient Advice and Liaison Service on 01227 783145 or email (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 information leaflets are available via the East Kent Hospitals' web site (<https://www.ekhuft.nhs.uk/patient-information>).

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