

**Patient
Information**

Gestational Diabetes Mellitus (GDM)

Diabetes and pregnancy

Introduction

If you have been given this leaflet, you have been diagnosed with Gestational Diabetes Mellitus (GDM). This leaflet explains what GDM is, how it is treated and how it may affect your pregnancy.

What is GDM?

GDM is a type of diabetes that occurs during pregnancy, usually during the second or third trimester.

Pregnancy results in various hormonal changes in your body which affect the way your body uses insulin (the hormone which lowers your blood glucose). These changes make it difficult to control blood glucose levels.

Immediately after you have given birth, you will no longer have GDM. In any future pregnancies you will be treated as though you have GDM, therefore you should contact the diabetes team or your midwife as soon as you have had a positive pregnancy test. If diabetes is diagnosed in your first trimester, it is possible that diabetes was present before pregnancy and it may not go away after giving birth.

Who is at risk of developing GDM?

There are certain risk factors that may make some women more likely to develop GDM. These include:

- A previous pregnancy with GDM
- First degree relative (parent or sibling) with diabetes (type 1 or type 2)
- Polycystic ovarian syndrome (PCOS)
- Obesity (BMI greater than 30kg/m²)
- Large baby on scan/previous large baby (macrosomia – birth weight greater than 4.5kg)

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- Previous unexplained stillbirth or neonatal death
- Ethnicity - Afro-Caribbean, South East Asian and Middle Eastern ethnic groups of women are more likely to develop GDM

How is GDM diagnosed?

Women with one of the above risk factors will have an oral glucose tolerance test at 24 to 28 weeks into their pregnancy. This is a fasting blood test followed by the consumption of a glucose drink and a further blood test 2 hours later.

Testing your blood glucose levels

Once you have been diagnosed with GDM it is important to regularly test your blood glucose levels. You will be taught how to do this by the Diabetes Specialist Nurse/Health Care Assistant.

The targets (as per NICE guidelines) for your blood glucose levels during pregnancy are:

- fasting blood sugar below 5.3mmol /L
- 1 hour after meals below 7.8mmol/L
- 2 hours after meals below 6.4mmol/L

The following advice applies, unless you are told otherwise by your Diabetes Team:

- If you are treating your GDM with diet and exercise **and/or with** oral therapy (metformin) without insulin, please test your fasting and 1 hour post meal blood glucose levels daily
- If you are treating your GDM with insulin injections, please test your fasting, pre meal, 1 hour post meal and bed time blood glucose levels daily

Treatment for GDM

At first, we will help support you to control your blood glucose levels through dietary changes and physical activity. In addition to education from the Diabetes Specialist Nurse you will be seen by the Diabetes Specialist Dietitian for dietary advice.

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You may require the addition of metformin tablets and/or insulin to help keep your blood glucose levels in target. These medications are safe to use during pregnancy.

What effects will GDM have for me and my baby?

In most cases, GDM will be picked up in the middle of a pregnancy. The baby's major organs are developed at this stage of the pregnancy and are not at risk of damage.

However, consistently raised blood glucose levels can result in complications such as:

- induced labour
- pre-eclampsia
- C-section (cesarean section)
- macrosomia (large baby)
- newborn having a low blood sugar after birth
- stillbirth

You can reduce all of these risks by managing your blood glucose levels with the advice and help of your Diabetes Team and obstetrician. The obstetrician will discuss your delivery options with you.

Is there a risk of developing diabetes?

Yes, you have a 50% risk of developing type 2 diabetes over the next 5 years and beyond.

You can reduce the risk by:

- being more physically active
- trying to achieve a healthy weight (BMI 18.5kg/m² to 25kg/m²)
- maintaining a healthy diet
- breastfeeding

Your GP should check your HbA1c (a blood test) at 13 weeks post-partum (after delivery of your baby) and annually thereafter to see if you have developed type 2 diabetes.

You should contact your GP's surgery and remind them that you need a blood test.

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If you are diagnosed with type 2 diabetes you will be treated in the community by your practice nurse and GP.

What can I eat?

If you have GDM, it is important to eat a balanced diet and continue to be physically active.

The foods which will have the most impact on your blood glucose levels are called **carbohydrates**. There are two different types of carbohydrates.

Sugary carbohydrates can raise your blood glucose levels very quickly. Although you do not need to remove every trace of sugar from your diet, you do need to make sure that it is low in sugar.

Try to avoid the following sugary carbohydrates:

- sugary soft drinks including coke, lemonade, fruit juice and fruit smoothies
- avoid adding sugar or syrups to tea and coffee
- avoid all sweets such as jelly beans, jelly babies or boiled sweets

As an alternative, you can drink low sugar/ low calorie / diet soft drinks or no added sugar drinks. If needed, you can use sweeteners in drinks and on cereal instead of sugar.

It is recommended to limit chocolate, cakes, biscuits and sugary puddings to smaller portions and less often.

Starchy carbohydrates such as bread, potato, pasta, rice and breakfast cereals also raise blood glucose levels. Whilst you should aim to have a starchy carbohydrate with your meals, you may need to eat these foods in smaller quantities. As a guide, try to aim for no more than a fist sized portion, or a quarter of your plate. This is about 30 to 40 grams of starchy carbohydrate at each meal. It is also recommended to choose wholegrain versions of starchy carbohydrates, as these raise glucose levels slightly slower than refined starches (white versions).

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There are some natural sugars in fruit which will also affect your blood glucose levels. It is important to continue to include fruit in your diet, but it is advised to spread your intake throughout the day. Aim for only one portion of fruit (a portion fits in the palm of your hand, or is 80g) at a time.

It is recommended to have 2 to 3 portions of dairy a day as it contains calcium. However, milk also contains a small amount of natural sugars. You may need to reduce your portion size of these foods. Yoghurt and cheese will be less likely to affect your blood glucose levels than milk.

A portion of dairy is classed as:

- one glass of milk (200ml)
- one small plain, Greek or natural yogurt (150g)
- matchbox sized medium fat cheese (30g)
- half a matchbox sized high fat cheese (20g)
- 2 small matchbox sized 'light' cheese (80g)
- large pot of cottage cheese (200g)

Food safety

Please continue to follow all food safety guidelines recommended during pregnancy by the NHS and Food Standards Agency.

Managing your weight

This depends on your weight before pregnancy.

There are currently no specific UK guidelines regarding weight gain in pregnancy. Most pregnant women gain between 10 to 12.5kg (1 stone 2lb to 1 stone 8lb).

If your BMI was more than 30kg/m² before you became pregnant, it is important to aim for a smaller amount of weight gain during pregnancy. If your BMI was more than 35kg/m² you should try to avoid any weight gain at all.

Small changes and increasing physical exercise may help you to avoid gaining too much weight. Excessive weight gain in pregnancy can make it more difficult for you to manage your blood glucose levels.

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Physical activity and exercise

The more active you can be, the easier you will find your pregnancy. It will also help you to cope during labour.

It is recommended to continue with your normal daily physical activity or exercise for as long as you feel comfortable. If you were not active before you became pregnant, it is advised to not suddenly take up strenuous exercise. Do not exhaust yourself, you will most likely find that you are able to manage less as your pregnancy progresses. If in doubt please consult your diabetes or maternity team.

Physical activity for pregnant women

- Helps to control weight gain
- Helps reduce high blood pressure problems
- Helps to prevent diabetes of pregnancy
- Improves fitness
- Improves sleep
- Improves mood

Not active? Start gradually

Already active? Keep going

Home

Out and about

Leisure

Throughout pregnancy aim for at least 150 minutes of moderate intensity activity every week

Do muscle strengthening activities twice a week

Every activity counts, in bouts of at least 10 minutes

No evidence of harm

Listen to your body and adapt

Don't bump the bump

UK Chief Medical Officers Recommendations 2017: Physical Activity in Pregnancy. bit.ly/startactiveinfo

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Contact information

If you have any questions or concerns, please contact:

The Diabetes Hospital Team

Tel: 0300 422 8613 (answer phone)

Email: ghn-tr.diabetespregnancy@nhs.net

Diabetes Dietitian

Tel: 0300 422 3460 (answer phone)

Email: ghn-tr.diet.diabetes@nhs.net

Please leave a message with your details and your call will be returned within 24 hours or after the weekend if the message is left late on a Friday afternoon.

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