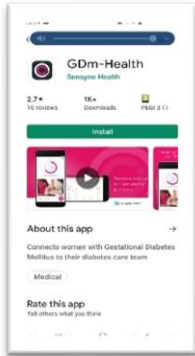


# Patient advice sheet

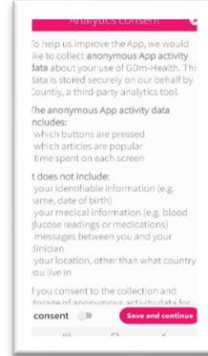
## Gestational Diabetes Guidance

We hope this guide will help you along your journey with gestational diabetes. Please read the information given to you and request a call back if you have any queries.

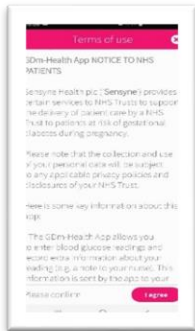
### Using the GDM App



1. Search and Install **GDM Health** from your App store



2. Analytics content – Press **'Save and Continue'**

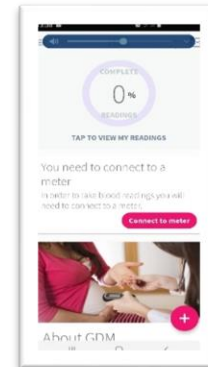


3. Press **'Agree'**

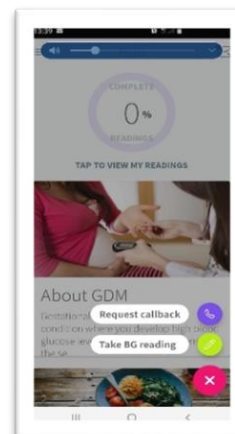


4. Press **Activate** then on the next screen enter the **9 digit Activation code** you will have received by text message or over the phone.

5. Connect to Meter – **TURN ON BLUETOOTH AND WIFI**  
Press **'Set up Meter'**  
**'Aga Matrix'**  
This is pairing the meter to your phone. The Meter should next give you a code to put into the meter, enter this code. The meter should now be set up.



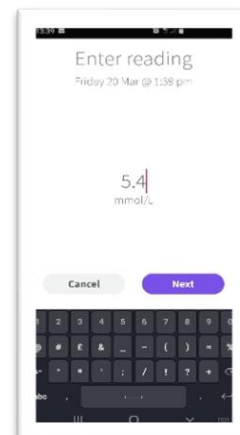
6. Once your app is activated and meter connected you are ready to upload your readings. From this screen you can scroll down and click on each of the subjects to read more information.  
Click on **'Request Callback'** to get in touch with us. **Particularly when you have had 2 higher readings.**  
**Click 'Take BG Reading'** to input you readings.



7. The first time you press **'Take BG reading'** will you take you to this screen. Scroll through instruction pages, see video for taking blood sample with meter.



8. The next screen press **'scan'**, ensuring your meter is also switched on and the readings should scan across. Under the **'scan'** button you can also enter readings manually. Once reading shows on screen press **'NEXT'**.



9. Now input your **meal type**. Press **'NEXT'**



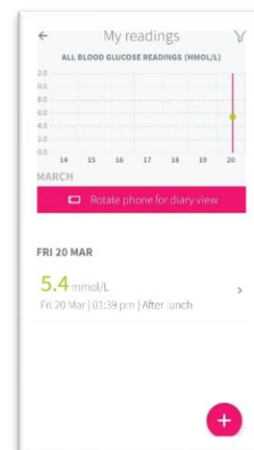
10. Now enter what you have eaten that meal. This is particularly important if you have had a **high reading** so we can offer dietary advice. Then press **'FINISH'**



11. The next screen should now show your readings at 100%. If you miss any of the **recommended 3 readings a day** this percentage will come down. Click on the pink circle with 100% to show your readings.



12. This screen shows your readings in graph format and list. Readings within normal range will show in **GREEN**. Readings out of normal range will show in **RED**.



13. If you have your phone screen unlocked, if turned to landscape you can see your readings in relation to your meals.



### Contact details for diabetes related queries only:

Stoke Mandeville Hospital (SMH): 01296 255790 Mon-Fri 8-4pm

Wycombe Hospital (WH): 01494 425575 Wed 8-4pm

Please contact labour ward triage: 01296 316103 **or**

Day assessment unit (SMH): 01296 316106

or your community midwife for other pregnancy related queries.

### Monitoring Blood Glucose Levels

- **Breakfast** – Alternate days either BEFORE or ONE HOUR AFTER you have finished eating.
- **Lunch and evening meal** – one hour after finishing meal EVERYDAY.
- **Ranges** – Before meals – less than **5.3mmol**
  - After meals – less than **7.8mmol**
- If you have 3 or 4 high readings, please request a call back so we can review. This may just be for dietary advice or to review if medication starts or adjustments. We will aim to call back within 72 hours of your request.

### Growth scans

Apart from regular blood glucose monitoring via the GDM Health app, we will aim for you to have scans at 32 weeks and 36 weeks, along with a face-to-face clinic appointment. However, if you remain diet controlled and had GDM in a previous pregnancy you will not need to have a scan at 32 weeks, only at 36 weeks.

### Video Links

First two videos are your guide on how to set up the app and use your monitor

[Welcome and how to do your Home blood glucose monitoring Tutorial](#)

<https://youtu.be/tulAGEk52S8>

[Sensyne health Tutorial](#)

<https://www.sensynehealth.com/training/gdm-health-help-centre>

### Insulin Starts

<https://www.youtube.com/watch?v=vxiOVTKdZ9g&feature=youtu.be>

<https://m.youtube.com/watch?v=y1tul4BvK98&feature=youtu.be>

## **Gestational Diabetes**

This information aims to tell you what care to expect during the rest of your pregnancy and the postnatal period now that it has been identified that you have gestational diabetes. It will not answer every question you may have, so please write any concerns down and ask your midwife or doctor.

### **What is Gestational Diabetes?**

Gestational diabetes is a type of diabetes that arises during pregnancy. It occurs when the body does not produce enough insulin to balance the effects of the hormones produced by the placenta. Therefore, blood glucose levels rise higher than normal. If it is diagnosed early in pregnancy, it is possible that diabetes has been present since before pregnancy.

During pregnancy, hormones are produced which tend to raise blood glucose (also known as 'blood sugar'). In some people this effect is greater than others, resulting in **Gestational Diabetes**. It is important to control blood glucose levels within certain limits to avoid weight and health problems for the baby at birth and beyond.

### **How will it affect my baby?**

Your baby will not be born with diabetes. However, the high levels of glucose in your blood will cross the placenta and enter the baby's blood, which is not good for your baby and may cause him/her to grow larger than normal, which in turn can make delivery difficult. Your pregnancy and blood glucose levels will be closely monitored.

### **What is the treatment?**

You will be referred to the diabetes team where your blood sugar levels will be monitored on the GDM health app.

You will be given a blood glucose meter and taught to perform your own blood glucose levels by finger pricking. You will be advised to perform these tests 3-4 times per day and asked to record them on the GDM health app. The aim will be to keep your blood glucose levels as follows:

- Fasting or before meals 5.2 mmol/l or below
- 1 hour after meals 7.7 mmol/l or below

### **What happens after the baby is born?**

Gestational Diabetes generally disappears after your baby is born but is likely to reoccur in any subsequent pregnancies and may indicate an increased chance of developing Type 2 Diabetes in later life.

### **Exercise**

Exercise helps you maintain good blood glucose control. Try and increase your level of activity through more walking or swimming. Check with your doctor first if you have any other pregnancy complications.

### **BEING ACTIVE IMMEDIATELY AFTER EATING**

Being active for 10-15 minutes just after eating can make your post meal glucose level as much as 2 mmols/L lower and so help achieve the post meal glucose target.

This can be going for a walk or being active around the house or workplace.

### **AVOID BEING INACTIVE IMMEDIATELY AFTER EATING**

## Dietary Advice

Excessive weight gain during pregnancy will affect your health and increase the risk of having a large baby. The aim of the diet is to help you to keep your blood glucose levels within safe limits for the development of your baby during pregnancy. You will be advised on what your **target blood glucose readings** are and adjusting what you eat will help you to reach these targets.

With gestational diabetes it is important to eat regularly, aim for three meals a day with 3 snacks a day (1 small snack in between meals). Ensure you eat a balanced diet. Try to eat foods from all the food groups.

If dietary measures are insufficient to control your blood glucose at normal levels, the diabetes team may recommend you are treated with metformin tablets. Some women will also need insulin injections as well.

## Healthy Eating Advice in Pregnancy

It is important to have a balanced diet including foods from each of the following 5 food groups:

### 1. Starchy Foods

Include: potatoes, sweet potatoes, pasta, noodles, rice, yam and fufu, plantain, semolina, maize, flour and foods made with flour such as bread, chapattis, crackers, rice cakes and dumplings.

These starchy foods give you energy and should make up part of each meal. To help your blood glucose choose wholemeal, wholegrain and high fibre varieties. These are good sources of folate and are needed for the growth of your baby.

Drink at least 6-8 glasses of fluid– without sugar (1½ -2 litres) daily to help avoid constipation and to ensure you are well hydrated.

### 2. Sugary foods

Include: sweets, toffees, mints, full-sugar drinks (squash and pops), milkshakes, smoothies, cakes, biscuits, glucose, granulated sugar, brown sugar, jaggery, honey, golden syrup, maple syrup, jam, ice-cream, ice-lollies, sweet puddings, cakes, and chocolate.

These foods and drinks increase blood glucose levels rapidly so should be **avoided**.

### 3. Fruit and Vegetables

Avoid fruit juice, including no added sugar fruit juice, as the natural sugar (fructose) in the fruit juice will raise your blood glucose levels quickly.

Fruit contains natural sugars so ensure that fruit is spread out throughout the day and that several pieces are not eaten at the same time. Aim for 2 portions of fruit a day (at separate times). Aim for at least 3 portions of vegetables a day (eg 1 handful with lunch and 2 handfuls with dinner).

### 4. Meat, fish and alternatives

Protein: Foods such as meats, fish, eggs, and cheese do not directly affect blood glucose. It is important to include moderate amounts in a balanced, healthy diet. Vegetarian protein sources include lentils, pulses, beans, tofu, Quorn, and paneer.

Protein can help to fill you up for longer and help to slow down the release of glucose into the bloodstream, if combined with carbohydrate-containing foods at mealtimes.

### **BULKING UP MEALS WITH MORE PROTEIN AND VEGETABLES / SALAD**

Eating more protein foods such as meat, fish, chicken, cheese, eggs, tofu, Quorn, pulses, and vegetables will fill you up more and stop you feeling hungry. These foods also flatten out the post meal glucose rise and so help achieve the post meal glucose targets whilst avoiding dips in glucoses later.

#### 5. Dairy Foods

Milk and yogurts contain a natural carbohydrate called lactose which will affect blood glucose if taken in large amounts. By **spreading these throughout the day** in moderate amounts there will be less effect on blood glucose levels, as the carbohydrate load is reduced.

A lower carbohydrate alternative would be soy-based milks/yogurts fortified with calcium. Cheese will **not** affect your blood glucose levels.

#### Eating the right amount of carbohydrate

It is important to eat enough carbohydrate to provide enough energy and nutrition to support a healthy pregnancy. However, eating too many carbohydrates can cause your blood sugars to be raised. Different carbohydrates can have very different effects on blood glucose levels after eating. Choosing the right type of carbohydrate can make all the difference to keeping the 1-hour post meal glucose below the target of 7.8mmols/l.

*Carbohydrates that are unrefined, high in fibre with a low glycaemic index (below 55) create a slower and lower rise in glucose levels after eating.*

Carbohydrates are better tolerated when you eat smaller quantities with meals. We generally recommend:

- Breakfast: 30g Carbohydrate
- Lunch and Dinner: 40g-50g Carbohydrate per meal
- Snacks: 10-15g Carbohydrate

#### Good breakfast choices:

- A. 1 slice whole-wheat toast (C15g) with a topping e.g. poached or scrambled eggs / mushrooms / tomato / cheese / ham / bacon / avocado.
- B. 1 small pot yoghurt (C13g) with one small, chopped fruit or cup of berries (C7g) topped with nuts / seeds
- C. 25g jumbo porridge oats (C15g) soaked overnight in crème fraiche and 1 cup berries (C7g), top with nuts / seeds
- D. 40g jumbo porridge oats (C25g) cooked with water and single cream added to taste

#### Examples of suitable fruit portions:

- Large handful of strawberries, blueberries, raspberries, blackberries or cherries
- 10 grapes, 2 plums, 3 dried apricots, 2 satsumas, half a mango.
- 1 small banana, apple, orange, peach or nectarine.



<b>REFINED CARBOHYDRATES TO AVOID (High GI)</b>	<b>TRY INSTEAD (Low GI)</b>
<b>All white breads:</b> loaf, rolls, pitta, naan, non-traditional baguette, croissant, chapattis, Panini, wraps.	<b>High fibre breads:</b> Rye bread and sourdough bread have the lowest GI. Whole-wheat, stoneground, granary and multi-grain varieties of breads have lower GIs. Chapattis made with whole meal flour  <b>Freezing bread first can help lower the GI</b>
<b>White flour based foods:</b> Cakes, biscuits, cream crackers, water biscuits, Ritz, Tuc, Yorkshire pudding, dumplings, Pizza, Pastry (pies, pasties, quiche, sausage rolls, spring rolls). Breaded and battered foods e.g. fish fingers, battered fish.	Oatcakes, whole-wheat crackers and crisp-bread e.g. Ryvita, cracker wheat. Wheatmeal Digestives, Hobnobs, Hovis biscuits (one or two)
<b>Low fibre and sugar coated breakfast cereals:</b> Cornflakes, Rice Krispies, Special K, Sugar Puffs, Cocoa Pops, sweetened muesli.	<b>High fibre cereals:</b> Porridge oats (Jumbo) <b>Most don't tolerate any cereal in pregnancy. You may tolerate small amounts of some high fibre cereals earlier in pregnancy: All Bran, Bran Buds, Shredded Wheat</b>
<b>Rice, pasta, grains:</b> No types need to be avoided.	The best rice is basmati. Brown rice and whole-wheat pasta may give benefit. <b>Cooling rice, pasta and potato after cooking and then eating cold or re-heating will lower the GI</b> Couscous, Bulgur wheat, semolina, tapioca, Quinoa
<b>Processed potato products:</b> Oven chips, French Fries, Smiley faces, waffles, Croquettes, frozen roast potatoes, instant potato, ready meals with instant potato topping	<b>Home cooked potatoes</b> – boiled is best Sweet potato, yam, cassava
<b>Processed savoury snacks:</b> Hula Hoops, Quavers, Pringles, Monster Munch, French Fries, Skips, baked crisps	Sliced potato crisps, for example Walker's or Kettle crisps. Ryvita snacks Vegetable crisps Salted or natural popcorn
<b>Cold drinks:</b> Fruit juices and smoothies, full sugar squash and fizzy drinks. Lucozade.	Sugar free squash, Sugar free carbonated drinks. Water.
<b>Sugar:</b> Sugar, glucose, maltose, dextrose, honey, treacle and syrup	Artificial sweeteners if a variety are used and in small quantities Splenda, Sweetex, Hermesetas, Nutrasweet, Candarel, Stevia
<b>Preserves:</b> Jam, marmalade, Honey, Lemon curd, maple syrup, chocolate spread	Marmite, Vegemite, Peanut Butter (if no allergies)
<b>Sweets / Desserts:</b> Melon, Mango, Pineapple, dried fruit sweets, chocolates, mints Sweet puddings and Ice cream, Tinned fruit in syrup	Fresh fruit, frozen fruit, tinned fruit in natural juice (juice drained off) Sugar free Jelly Yogurt, "fromage frais" (under 15g total carbohydrate / pot)
Condensed, evaporated milk	Crème Fraiche, Cream
<b>Ready meals/stir in sauces/take away:</b> Some ready meals and sauces contain significant amounts of sugar, for example sweet and sour sauces, jar or packet Chinese sauces. Chinese takeaway. Tomato soup, Baked Beans, tinned spaghetti	Tomato-based pasta sauces. Tomato-based/dry curries. Reduced sugar baked beans (drain off sauce)
Bed-time and Malted drinks such as Ovaltine, Horlicks, drinking chocolate.	Cadbury's Highlight, Ovaltine Options, cocoa powder.

Source: [www.dtn-uk.care](http://www.dtn-uk.care) Department of Nutrition and Dietetics: Healthy Eating for Diabetes in Pregnancy University Coventry and Warwickshire NHS Trust.

Please remember that this leaflet is intended as general information only. We aim to make the information as up-to-date and accurate as possible, but please note that it is subject to change. Please therefore always check specific advice on any concerns you may have with your doctor.

### **How you can help reduce healthcare associated infections**

Infection prevention and control is important to the well-being of our patients and for that reason we have infection prevention and control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. Please follow our infection prevention and control guidelines when visiting our healthcare sites. Further information is available on our website.

### **Patient Advice Sheet**

If you would like a copy of this information on audiotape, in large print or translated, please call the Patient Advice Liaison Service on 01296 831120 or email [bht.pals@nhs.net](mailto:bht.pals@nhs.net)