



**University  
Hospitals Sussex**  
NHS Foundation Trust

# Healthy eating with gestational diabetes

Department of Diabetes and Dietetics

Patient information

## What is this information about?

This information is about gestational diabetes and the diet you should follow if you have it. It explains:

- what gestational diabetes is
- what can make it more likely that a person will get gestational diabetes
- how gestational diabetes is diagnosed
- the levels at which you should try to keep your blood glucose
- how different types of foods affect your blood glucose levels
- which types of food you should eat or avoid if you have gestational diabetes.

It also answers some frequently answered questions.

## Why have I been given this information?

You have been given this information because you have been diagnosed with gestational diabetes in your current pregnancy or have been previously diagnosed as having gestational diabetes. This leaflet gives advice which, if you follow it, will enable you to have a balanced diet for pregnancy while helping to control your diabetes and weight.

## What is gestational diabetes?

Gestational diabetes is the name given to diabetes that can happen during pregnancy (gestation). If a person has diabetes, their body cannot control the amount of sugar (glucose) in their blood.

## Why do some people get gestational diabetes?

Insulin is a hormone which controls the glucose level in the blood. When you are pregnant you make extra hormones, and you may put on weight. This means that your body may need more insulin. In gestational diabetes, your body may not be able to make the extra insulin it needs, or the insulin may not work as well (insulin resistance).

## How is gestational diabetes diagnosed?

If you have risk factors that mean you are more likely to get gestational diabetes, you will have a glucose tolerance test at your first midwife appointment.

### The glucose tolerance test involves:

- having a blood test in the morning after you have not had any food or drink (you can usually drink water) for 8 to 10 hours
- having a glucose drink which we will give you
- resting for two hours
- having another blood sample take to see how your body is dealing with the glucose.

If the test shows that you do not have gestational diabetes (the test is negative) it is repeated at around 28 weeks gestation. If your blood glucose is 7.8mmol/l or above two hours after you have had a glucose tolerance test, this shows that you have gestational diabetes.

## What happens if I have had gestational diabetes before?

If you have had gestational diabetes before **do** start monitoring your blood glucose when you have been pregnant for 10 weeks. Some women may choose to have the glucose tolerance test.

## What can make me more likely to get gestational diabetes?

Things that might make you more likely to get gestational diabetes (risk factors for gestational diabetes) include:

- having a parent, child, brother or sister who has diabetes
- an unexplained stillbirth or neonatal death in a previous pregnancy
- a very large infant (greater than 4.5kg) in a previous pregnancy
- having polycystic ovary syndrome (PCOS)
- having a family origin with high prevalence of diabetes, such as South Asian and Afro Caribbean
- age. Being over 35 years old
- gestational diabetes in previous pregnancies
- BMI (body mass index) above 30kg/m<sup>2</sup>.

## What target levels of blood glucose should I aim for?

**Do** try to keep your blood glucose levels taken from a finger prick test within these ranges:

- before your meals: 3.5 to 5.3mmol
- at one hour after your meals: 4 to 7.8 mmol

If you are using a continuous glucose monitor **do** try to keep your blood glucose levels within these ranges for more than 90% of the time.

## A balanced diet

### Why is it important for me to have a balanced diet when I am pregnant?

When you are pregnant it is important to follow a balanced diet to make sure that you and your baby get all the nutrients that you need.

### Which foods cause my blood glucose levels to rise?

#### We eat three main groups of nutrients:

- **Fats and proteins.** These have little effect on your blood glucose levels. The amount of these that you eat, especially fat, can affect your weight though. Do Include some healthy fats and lean proteins in your meals to:
  - help manage your glucose level after you have eaten
  - help you to feel fuller for longer.
- **Carbohydrates.** These are the foods that have the most effect on blood glucose levels. **All carbohydrates are broken down into sugar (glucose).** This glucose is taken into your blood stream and makes your blood glucose levels rise. You need a regular supply of carbohydrate, 'fuel', over the day. The insulin your body makes helps you to use this glucose for energy.

The amount of glucose your body makes depends on the amount of carbohydrate you eat. It is important to spread carbohydrate foods evenly over the day and to avoid large portions. Blood glucose monitoring will help you to understand how different carbohydrate foods and portions affect your blood glucose levels.

#### There are 4 main types of carbohydrate:

- starch (for example, potatoes or pasta)
- sugar (glucose or sucrose)
- fruit sugar (fructose)
- milk sugar (lactose).



## What portion size of different carbohydrate food types will provide 30g of carbohydrate?

Food	Amount which provides 30g carbohydrate
<b>Bread</b>	2 medium cut slices from a large loaf 1½ thick slices from a large loaf 1 wrap or tortilla, approx. 26cm / 10 inches 1 medium pitta bread (60g) 1 mini size naan bread (round, 60g) 1 ½ x 10 inch cooked chapatti (65g)
<b>Potatoes</b>	5-6 egg-sized boiled new potatoes (180g) 180g mashed potatoes (with milk or butter) 3-4 egg sized roast potatoes (120g) 150g mashed sweet potato 1 small jacket potato (150g cooked) 7-10 deep fried chips (80g) 10-15 oven chips (100g)
<b>Rice and Grains (cooked)</b>	3 tablespoons or 100g cooked rice 3 tablespoons or 100g cooked couscous 4-5 tablespoons or 170g cooked quinoa 5 tablespoons or 200g cooked bulgar wheat 4-5 tablespoons or 195g cooked polenta
<b>Pasta (cooked)</b>	3 tablespoons or 100g cooked
<b>Noodles (cooked)</b>	3 tablespoons or 80g cooked egg noodles 4 tablespoons or 100g cooked rice noodles
<b>Breakfast cereals</b>	Small bowl (220g) porridge 27g oats made with milk Large bowl (365g) porridge 45g oats made with water 35g or 3 tablespoons Bran Flakes, Malted Wheats, no added sugar Museli, Special Flakes with berries 2 wheat biscuits 2 oat biscuits 2 wheat pillows

## What do I need to know about eating at breakfast time?

You have been asked to test your blood glucose levels before your breakfast and one hour after all meals.

It is harder to control your blood glucose after breakfast than it is for other meals. This is because your placenta makes high levels of hormones around breakfast time, especially in the third trimester of your pregnancy.

You are likely to need to eat less carbohydrates at this time of the day. **Do try:**

- Eating more protein-based foods at breakfast time.  
These can help you to feel fuller for longer
- Splitting your breakfast into two sessions.  
For example, have half of your usual breakfast when you get up and then have the other half as a mid-morning snack.



## What breakfasts could I have that contain 20 to 35g of carbohydrate (CHO)?

Breakfasts that contain 20-25g Carbohydrate	Breakfasts that contain 30-35g Carbohydrate
<p>200g strained Greek yoghurt (10g CHO)</p> <p><b>WITH</b> 80g raspberries &amp; 80g blueberries (8g CHO)</p> <p><b>AND</b> 6 walnut halves (0g CHO)</p>	<p>1 plain pancake (44g weight) (12g CHO)</p> <p><b>WITH</b> 100g strained Greek yoghurt (5g CHO)</p> <p><b>AND</b> 1/2 a medium banana sliced (10g CHO)</p>
<p>1 thick slice granary toast (24g CHO)</p> <p><b>WITH</b> ham or/and eggs (0g CHO)</p>	<p>30g granola (20g CHO)</p> <p><b>WITH</b> 100g milk (5g CHO)</p> <p><b>AND</b> 50g raspberries (5g CHO)</p>
<p>1 whole wheat pitta bread (25g CHO)</p> <p><b>WITH</b> cream cheese (0g CHO)</p> <p><b>AND</b> 1 sliced tomato (0g CHO)</p>	<p>25g porridge oats with 100ml milk (22g CHO)</p> <p><b>AND</b> 3 strawberries (3g CHO)</p> <p><b>AND</b> 1/2 a medium banana (10g CHO)</p>
<p>1 thick slice of granary/wholemeal toast (24g CHO)</p> <p><b>WITH</b> mushrooms/tomatoes/peanut butter (0g CHO)</p>	<p>2 slices of medium sliced granary bread (30g CHO)</p> <p><b>WITH</b> smashed avocado and chopped tomato (0g CHO)</p>
<p>2 egg omelette (0g CHO)</p> <p><b>WITH</b> cheese, tomatoes, onion and spinach (0g CHO)</p> <p><b>AND</b> 1 egg size potato (10g CHO) or 1 slice of medium sliced toast (15g CHO)</p>	<p>2 slices of medium sliced granary or wholemeal toast (30g CHO)</p> <p><b>WITH</b> 2 scrambled eggs (0g CHO) add bacon (0g CHO)</p>
<p>20g Branflakes or Shreddies or Weetabix (15g CHO)</p> <p><b>WITH</b> 100ml milk (5g CHO)</p>	<p>1 slice of medium sliced granary or wholemeal toast (15g CHO)</p> <p><b>WITH</b> 1/2 can baked beans (15g CHO)</p>

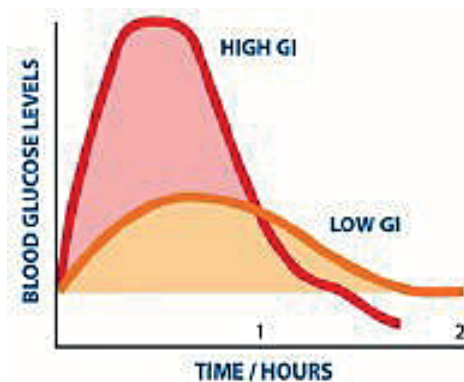
# What is the Glycaemic Index (GI)?

## The Glycaemic Index (GI)

The glycaemic index is a measure of how quickly a carbohydrate food is broken down into sugar. It also tells you how much and how quickly it then changes your blood glucose levels.

- High GI foods are broken down into sugars very quickly. They cause a rapid rise in blood glucose levels. You will often feel hungry again soon after eating these foods.
- Low GI foods are broken down into sugars much more gradually. They cause a more gradual rise and fall in blood glucose levels and help you to feel fuller for longer. They are a more slow-release source of energy.

The effect of eating high and low GI foods on your blood glucose levels is shown in this graph:



**Do** choose low Glycaemic Index (GI) starchy foods. Low GI starchy foods release glucose very slowly into the blood, which is good for controlling your blood glucose level.

**Avoid** large amounts of foods with a high glycaemic index.

## Which foods are in the low, medium and high GI categories?

You can see which types of foods from the different food groups have a low, medium or high GI below:

Food	Low <50	Medium 56-69	High >70
<b>Breads</b>	Wholegrain or mixed grain breads, e.g. granary, rye bread, linseed bread	Pitta breads, English muffins, crumpets, croissant	White bread, Wholemeal bread, baguettes, bagels
<b>Grains and pasta</b>	Pasta (including gluten free), buckwheat, bulgur wheat, (cook al dente)	Basmati rice, couscous, quinoa, brown rice	white rice, rice cakes, cream crackers
<b>Cereals</b>	Porridge Oats	Shredded wheat, muesli	Sultana bran, rice krispies, cornflakes, sugary cereals Weetabix
<b>Potatoes</b>	Sweet potato, yam	New potatoes, boiled potatoes	French fries, instant potato, roast, mashed. Jacket/baked potato
<b>Vegetables and pulses</b>	Most vegetables and beans and pulses including peas	Beetroot	Broad beans, parsnip
<b>Fruit</b>	Apples, pears, orange, kiwi, cherries, plums, grapes, strawberries, peach, mango dried pear, dried apricots, prunes, apricot	Banana, fruit juice, smoothie sultanas, raisins, dried figs, pineapple	Dried dates, melon

Food	Low <50	Medium 56-69	High >70
<b>Dairy</b>	Low fat milk, diet yoghurt, soya milk, soya yoghurts, plain or Greek yoghurt		Rice milk
<b>Biscuits</b>	Oatmeal biscuits	Rich tea, digestives, shortbread	Vanilla wafer, custard creams, bourbon biscuits
<b>Other foods</b> (Limit portions of these)	peanuts, cashew nuts,	Honey, reduced sugar jams	Sugar, glucose tablets, soft drinks, sweets, jam and marmalade, popcorn

## What small changes to my diet can I make that will help to control my gestational diabetes?

It may seem like a challenge to change your eating pattern and cut back a lot on what you eat. Do try these small changes which can make a real difference:

Meal	Current choice	Try instead
<b>Breakfast</b>	White toast with jam	Granary toast with peanut butter or porridge with milk
	Fruit juice	A piece of fruit
<b>Snack</b>	Chocolate biscuit	Nuts or Savoury oat/rye biscuit
<b>Lunch</b>	Brown bread ham sandwich, crisps and low fat yoghurt	Ham and 2 high fibre crackers, small fruit portion, veg sticks with dip or hummus

Meal	Current choice	Try instead
Snack	Crisps	Mashed avocado or handful of savoury popcorn/unsalted nuts/seeds
Evening meal	Cheese and pasta bake with garlic bread	Small amount of wholemeal pasta bake with added vegetables or side salad
	Fruit pie and custard	Handful of fresh or frozen fruit with Greek yoghurt or small amount of custard made with sweetener or sugar free jelly
Evening snack	Sugar coated cereal with milk	High fibre cereal with milk or handful nuts
Drinks	Sugary drinks	Diet drinks/fruit tea/fruit infused water

## Vegetables

### Why is it important to eat plenty of vegetables?

Fruit and vegetables are full of vitamins that are very good for you and your baby. Aim for at least 5 portions of fruit and vegetables a day. They also have lots of fibre, which helps to fill you up and helps to prevent constipation which can sometimes be a problem in pregnancy.

Filling up on vegetables at your main meal is important to help to prevent too much weight gain.

#### Do aim to have:

- Half the plate filled with vegetables
- A quarter of the plate taken up with starchy food
- Another quarter taken up with a portion of meat or fish.

## What ideas can I try that will help me to eat extra vegetables?

**Ideas to include extra vegetables in your diet include:**

- Have salad with your meal
- Boiled vegetables on the side if you are having a ready meal
- Add extra vegetables into stews, curries, and pasta sauces
- Chop up vegetables like carrots and celery and have them as snacks
- Include pulse and vegetable-based soups
- Add beans and pulses to meals to help you feel fuller.  
They are also low calorie and count as one of your 5 a day



**1 portion vegetables = 80g/2 cupped hands**

## Can I eat fruit?

Fruit is an excellent, nutritious snack and is full of vitamins and fibre.

**Do** eat whole fruit rather than fruit juice. Fruit juice and smoothies have a large amount of fruit sugar.

Try to have no more than 150ml per day but you may have to cut out these drinks altogether if having them causes your blood glucose levels to rise too high. If you do have fruit juice, try to have it with a meal and consider diluting it with water.

**Do** have fruit as a snack instead of crisps, biscuits, or chocolate.

You can have two to three portions of fruit each day.

A portion of fresh fruit is about a handful. For example, one apple, one small banana, a handful of grapes or two satsumas.

A portion of dried fruit is around one tablespoon.

Some examples of low carbohydrate fruits are berries or small fruits like plums, satsumas, and kiwis. Try to spread eating fruit out over the day and do not eat more than one portion at a time as they contain natural sugars (fructose). This will help to control effects on blood glucose.

**1 portion fresh fruit = 80g**

**1 portion dried fruit = 30g**

## Should I gain or lose weight if I'm pregnant and 'eating for two'?

**No.** Some people believe that because they are pregnant, they should be eating lots more to feed the growing baby but you do not need to eat much more than you would usually. It is more important that you eat the right balance of foods.

Controlling your weight gain will help to control your diabetes and help your baby's development.

**Do not** aim to lose weight during pregnancy. If you were overweight before you became pregnant you should try to keep your weight stable and avoid gaining lots of weight. Your dietitian or midwife can discuss the right level of weight gain for you based on your weight before or at the beginning of pregnancy.

## How much weight gain should I expect during pregnancy?

This depends on your BMI (Body Mass Index) before you were pregnant (pre-pregnancy BMI) and whether you have a single or twin pregnancy.

Pre-pregnancy BMI Single Pregnancy	Weight gain	Pre-pregnancy BMI Twins	Weight gain
under 18.5	28 to 40lbs (13 to 18 kg)	under 18.5	37 to 54lbs (16.8 to 24.5kg)
18.5 to 24.9	25 - 35lbs (11 -16kg)	18.5 - 24.9	37 - 54lbs (16.8 - 24.5kg)
25-29.9	15 - 25lbs (7 -11kg)	25 - 29.9	31 - 50lbs (14.1 -22.7kg)
More than 30	11-20lbs (5-9kg)	More than 30	25 - 42lbs (11.3 -19.1kg)

## What do the different levels of BMI mean?

- Under 18.5 = underweight
- 18.5-24.9 = normal range
- 25-29.9 = overweight
- More than 30 = obese

## What are the top tips for stopping me from gaining too much weight when I'm pregnant?

To avoid gaining too much weight when you're pregnant **do**:

- eat regular meals, 3 times a day
- limit portion sizes (follow the handy portion guide on 6)



- eat plenty of vegetables and salad
- snack on a piece of fruit instead of crisps, biscuits, cakes
- eat less fat. For example avoid pastry, fried foods, chocolate, biscuits, butter, cream.
- eat more fibre. Do this by including plenty of vegetables and fruit, and choosing wholegrain options.
- drink plenty of water.
- be active, for example go for a 30 minute walk each day.

**Avoid** sugary foods and drinks.

## Can exercise help me to control my blood glucose?

Yes, regular exercise can help improve blood glucose control.

**Do** try to do some moderate exercise, such as a 30 minute walk every day.

## Should I use 'Diabetic' foods to help me to control my blood glucose?

No. You may see specially made 'diabetic' foods such as chocolates or biscuits. These are not recommended because they:

- can still affect your blood glucose levels as they often contain some starchy carbohydrate even if they are sugar free
- can sometimes have more total carbohydrate than non 'diabetic' foods
- can be high in fat and calories
- are expensive
- can have a laxative effect.

## How can understanding food labels help me?

Using food labels can be a useful way to check if a food is high or low in fat, sugar, and salt. Try looking at 'per 100g' on the food label.

**Do** choose mostly foods that are low in sugar, fat, saturated fat, and salt.

## What counts as a high or low amount per 100g for the different nutrients?

Nutrient	Low (per 100g)	High (per 100g)
Fat	3g or less	17.5g or more
Saturated Fat	1.5g or less	5g or more
Sugars	5g or less	22.5g or more
Salt	0.3g or less	1.5g or more
Sodium	0.1g or less	0.6g or more

**Do** look at 'per 100g' on a label to compare different brands of a food. You may not always be able to find a low sugar (less than 5g) version of a product but checking labels can help to choose the best option.

For example, if you pick up three different breakfast cereals, yoghurts, or jarred sauces you can look at the sugar per 100g for each of them and pick the one with the lowest amount of sugar.

## Which other nutrients should I make sure I'm having?

### Folic Acid

Folic acid supplements help to prevent spinal cord problems in the growing baby.

From the time you stop contraception to the 12th week of pregnancy **do** take a daily 400 microgram folic acid supplement.

### Be advised

If you have already had a pregnancy that has been affected by a neural tube defect (such as spina bifida) or have a BMI over 30kg/m<sup>2</sup> **do**:

- take a higher dose of folic acid of 5 milligrams (mg) a day for the same time period
- ask your GP or midwife for advice.

### Calcium

It is very important to have plenty of calcium. This helps your baby's bones to develop and protects your bones.

**Do** aim to have three portions of a dairy food each day.

**Examples of one portion are:**

- a glass of milk or milk alternative fortified with calcium (200ml)
- small pot of yogurt (check sugar content) or 3-4 tbsp. Greek or plain natural
- 40g or 1-2oz of cheese.

If you do not include dairy foods in your diet **do** include 3 portions of calcium rich foods per day. Examples include:

- 3 – 4 tbsp. fortified plant based yoghurt
- 200ml plant based milk alternative. This should be fortified with calcium and not be organic.
- 60g tofu
- 2 slices calcium fortified bread
- 1/2 tin sardines or 50g whitebait.

## Iodine

You need iodine for your body to produce thyroid hormones. These hormones help with your baby's brain and bone development.

Foods containing iodine include pasteurised milk, pasteurised dairy products, and fish. It is likely that if you eat these foods regularly you will be getting enough iodine. If you don't, please discuss this with your midwife, GP, or dietitian.

## Vitamin D

Do take a daily supplement of Vitamin D (10 micrograms) when you're pregnant or breast feeding.

If you already take a pregnancy multivitamin, check the label. If it has at least 10 micrograms of Vitamin D, you do not need to take a separate Vitamin D supplement.

If you do need extra Vitamin D, you can buy a supplement which has 10 micrograms from a pharmacy or supermarket.

Some people qualify for free vitamins through the Healthy Start scheme. Ask your health professional for more information about the Healthy Start scheme.

## Iron

A diet with plenty of iron will help to prevent you becoming anaemic. The best source of iron is red meat, such as beef or lamb. Try to include this at least twice a week, and make sure it is well cooked.

### Other good sources of iron are:

- fortified breakfast cereals
- kidney beans and other beans & lentils
- green leafy vegetables
- wholemeal bread.

### Be aware

although liver is a good source of iron, **do not eat liver or liver products when you are pregnant.** Its high vitamin A levels can be harmful.

If you have been prescribed an iron supplement, when you take it, have something with vitamin C in it, such as a piece of citrus fruit, at the same time. This helps your body to take in (absorb) and use the iron.

Avoid drinking tea or coffee at the same time as having your iron supplement as this can stop it from being absorbed properly.

### Other Important Nutrients

Fish oils are good for your heart health and for your baby's development. Aim for one to two portions a week of oily fish.

## These fish count towards your 1 to 2 portions:

- salmon
- sardines
- pilchards
- trout
- mackerel
- kippers.

### Be aware

Do not have more than two portions of oily fish per week because of the pollutants that sometimes build up in them.

Avoid shark, marlin, and swordfish altogether when you are pregnant because of the mercury content.

Tinned tuna is not an oily fish but do not eat more than four 140g tins of tuna a week.

## Can I have caffeine when I am pregnant?

**Do** limit your caffeine intake to less than 200mg a day when you are pregnant.

This guide will give you an idea of caffeine contents, but these vary between brands:

- mug of tea: 75mg
- mug of instant coffee: 100mg
- mug of filter coffee: 140mg
- can of diet cola: 40mg
- chocolate (50g bar): 10-25mg.

## Be aware

Green tea has a similar amount of caffeine to regular tea. The caffeine content varies depending on the size of the drink and how strong it is.

## What can I do to reduce the amount of caffeine that I'm having?

**You can reduce the amount of caffeine you are having by:**

- choosing decaffeinated teas, coffees and soft drinks rather than the caffeinated version
- trying fruit 'teas'. Limit these to a maximum of 4 cups per day
- drinking more water
- trying 'no added sugar' squash or 'sugar free' flavoured water.

## Which foods should I avoid during pregnancy and why?

**Do avoid:**

- **liver and liver products such as liver pate.** Liver is very high in vitamin A. High amounts of vitamin A can be harmful to the growing baby.
- **alcohol.** Alcohol can seriously damage the growing baby.
- **foods which can cause Listeria infection including:**
  - **soft ripened cheeses,** such as Camembert, Brie, goats' cheese.
  - **mould-ripened cheeses**
  - **unpasteurised milk**
  - **pate** (meat & vegetable)
  - **pre-cooked or ready prepared foods that will not be reheated,** such as pre-made salads, or quiche

- **smoked or cured fish which has been produced at a cold temperature** (cold smoked) or raw fish, including sushi. For example, smoked salmon, gravlax or sushi unless they have been cooked until steaming hot.

These foods can sometimes have bacteria, which cause Listeria infection. Listeria can infect the growing baby and be very damaging.

- **raw eggs and undercooked poultry.** These foods can contain Salmonella bacteria. Salmonella infection can be very harmful during pregnancy.
- **shark, marlin, and swordfish.** These fish contain levels of mercury that are too high during pregnancy.

**For further information visit**

**NHS Choices** <https://www.nhs.uk/pregnancy/keeping-well/foods-to-avoid/> or **Food Standards Agency** [www.food.gov.uk](http://www.food.gov.uk)

## What is likely to happen to my gestational diabetes after my baby is born?

Gestational diabetes will disappear for most people after their baby is born. You may get gestational diabetes in the future if you are pregnant again.

You will have your blood glucose check on the ward soon after you have had your baby. You should also have your fasting blood glucose level tested six weeks after your baby is born. This is to check that your blood glucose levels are back to normal.



## If I have had gestational diabetes, is there a greater risk that I may get type 2 diabetes later in life?

Yes. Around half of women who have had gestational diabetes will go on to get type 2 diabetes within the next five to ten years.

## What can I do to reduce the risk of getting type 2 diabetes later in life, or delay getting it?

### Do:

- have your fasting blood glucose levels and/or HbA1c checked annually with your GP
- reduce your weight if you are overweight
- have a healthy diet
- exercise regularly.

People who have had gestational diabetes can join the national Diabetes Prevention Programme. Please ask your GP for further details.

## Can I breastfeed/chest-feed?

Yes. Breast/chest feeding provides are lots of health benefits to mum and baby. Having gestational diabetes should not affect your ability to breast/chest-feed successfully if you wish to do so. Seek advice from midwives or maternity support workers on the ward or your health visitor for advice on feeding.

## Frequently asked questions/myth buster

### Are grapes and bananas bad for your blood sugars?

Fruit naturally contains fruit sugars (fructose). This will affect blood glucose levels but it is usually found in quite small amounts and the fibre in fruit helps release the sugars slowly. You do not need to avoid any fruits but try not to have more than one handful at a time and no more than two to three portions per day. Ask your dietitian for a snack list of lower carbohydrate fruits.

### What is food pairing and does it work?

You may see some websites and forums referring to something called 'food pairing'. Food pairing means having certain types of foods together to lessen the effect of the carbohydrate on the blood glucose levels.

This is related to the glycaemic index. Foods or meals that are higher in fibre, or have more fat, cause digestion to slow down. This means that carbohydrates are broken down more slowly and cause slower rises in blood glucose levels.

Avoid having carbohydrate foods on their own. Do try adding these to your meals alongside carbohydrate foods:

- a high fibre food such as pulses
- a food high in healthy fats such as low sugar nut butters or avocado
- some lean protein.

## Do I need to avoid all carbohydrates?

No. Starchy carbohydrates can be a good source of fibre. Fruit and vegetables are rich in vitamins and minerals. Milk products are a good source of calcium.

Cutting out large groups of food completely can lead to an unbalanced diet, increasing the risk that you do not get the nutrition you need. Do reduce the portion size of these foods to help reduce blood glucose levels.

**Be aware** - Ketogenic (very low carbohydrate) diets are **not** suitable in pregnancy.

## Can I have any foods at all with added sugar?

Avoid high sugar foods such as cakes, biscuits, or sweets. They provide no additional nutritional value and are likely to cause rises in blood glucose levels. Many other foods have added sugar including yoghurts, sauces, soups, and condiments such as ketchup, BBQ sauce and chutneys.

If you have these **do** check the food labels and choose the lowest sugar option.

## Can I get useful information for managing my gestational diabetes from forums, such as social media chat groups?

These can offer some useful suggestions for meals and snacks from people living with gestational diabetes.

Remember that everyone is different though and what works for one person may not work for others.

The advice we give in individual sessions with you, in group sessions, and in this information is the best starting point. Dietary changes need to be made in response to blood glucose levels.

## What causes my blood glucose levels to be different even though I've had the same type of food or meal?

Some of the reasons your blood glucose levels may be different even though you've eaten similar food are:

- pregnancy hormones made by the placenta can affect insulin resistance, the cause of gestational diabetes
- there are higher levels of pregnancy hormones in the morning. You may find that some types of food you are unable to have at breakfast are ok later in the day
- the body releases lots of other hormones in different amounts throughout the day which can affect your blood glucose levels
- pregnancy hormones also increase the longer you are pregnant. A food that was ok earlier in pregnancy can cause your blood glucose levels to rise later in pregnancy.
- stress, activity levels and illness can have an impact on blood glucose levels.

## Are there any foods or supplements that can lower your blood glucose?

There is no strong evidence that any type of supplement or food lowers blood glucose levels in any type of diabetes.

## Is it ok that my blood sugar is below 4mmol/L when I'm not on any medication for my diabetes?

'Normal' blood glucose levels in someone without diabetes can drop as low as 3.5mmol/L. This is usually after long periods of not eating. If you feel well this is not a problem. If you feel shaky or unwell then think about what you chose to eat for your meal before you got these symptoms. Could you have made different choices that would not have caused them?

You could also consider having a low carbohydrate snack between meals. You can talk to your midwife, dietitian, or diabetes team if low blood glucose is making you feel unwell.

### Should I be worried if I lose weight?

Sometimes people lose weight after making lots of changes to their diet. This is more likely if they were having lots of foods high in calories, sugar or fat and have now stopped having these. So long as you are having a healthy, balanced diet and are not going hungry weight loss should be ok. If you are worried about your weight loss discuss this with your midwife.

### I have severe morning sickness and my food choices are limited. The foods that I can have are not recommended for people with gestational diabetes. What can I do?

Do just eat the foods you are able to as it is important that you get enough nutrition for you and your baby. Your blood glucose levels will be managed by us in the best way. This may mean you have to have some medication. Once you feel better, try to stick to the recommended diet.

### Can I have a day off for a celebration such as my birthday, a baby shower, Christmas, or parties?

Ideally you should follow the diet all the time as high sugar foods are very likely to cause a rise in blood glucose levels. Think about including more of the foods which do not affect blood glucose levels as much.

**You can find recipes suitable for all occasions at these web pages:**

[www.carbsandcals.com/books/gestational-diabetes/](http://www.carbsandcals.com/books/gestational-diabetes/) and  
[www.diabetes.org.uk/guide-to-diabetes/recipes](http://www.diabetes.org.uk/guide-to-diabetes/recipes)

## **Who should I contact if I need further information or support after I've read this information or would like to give feedback?**

If you have any questions about diet, pregnancy and diabetes please ask your midwife or dietitian.

Dietitians' contact details:

**St Richard's Hospital**

**01243 831498**

**[uhsussex.chichesterdietitians@nhs.net](mailto:uhsussex.chichesterdietitians@nhs.net)**

**Worthing & Southlands**

**01903 286779**

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