



Eating well with gestational diabetes

1. Information for patients

The purpose of this leaflet is to understand gestational diabetes and how healthy eating and some dietary changes may help to improve blood sugar control during your pregnancy.

2. What is gestational diabetes?

Our blood sugar levels are normally controlled by a hormone called insulin. Insulin helps to breakdown sugar found in the diet and utilise it as a source of energy for our body cells.

During gestational diabetes, the insulin does not work as well as it should and can cause the level of blood sugar to rise, which may affect the baby during pregnancy.

Gestational diabetes is usually tested at 24-28 weeks of pregnancy. Oral glucose tolerance test (OGTT) will be used as the method of testing.

If you had gestational diabetes in a previous pregnancy it will be more likely the OGTT will be carried out at weeks 16-18 of pregnancy, along with a possible repeat OGTT at 28 weeks.

More often, gestational diabetes is temporary and blood glucose levels should return to normal after your baby is born. You should be asked to repeat a test usually around 6 weeks after your baby is born.

If you have previously had gestational diabetes, there is an increased risk of developing gestational diabetes in future pregnancies or type 2 diabetes in the future, particularly if you are overweight. Following a healthy eating pattern is recommended during pregnancy and after giving birth.

It is important to monitor blood sugar regularly as recommended by your doctor, nurse or midwife.

Fasting blood sugar level (before meals) and either 1 hour or 2 hours after meals (postprandial) checks are useful to check blood sugar control.

Target blood sugar levels:

	Blood glucose reading (mmol/l)
Fasting (before mealtime)	< 5.3
1 hour after meals	< 7.8
2 hours after meals	< 6.4

Pregnant women who are on oral diabetes medications or insulin are advised to maintain their blood sugar level above 4mmol/l at all times.

3. How does gestational diabetes affect my baby?

If your blood sugar levels are raised, extra glucose (sugar) will be passed onto your baby across the placenta.

- Poorly controlled blood sugar levels can cause the baby to grow larger and can also cause difficulty during labour or complications during child birth
- It also raises the risk of pre-eclampsia
- The baby may have low blood sugar level (hypoglycaemia) which may result in a longer hospital stay and you may be asked to feed the baby more. This does not mean your baby will be diabetic
- There is also a slight increase in the risk of stillbirth.

4. What is the treatment?

Sometimes by making healthy changes in your diet it is enough to control blood glucose level. Some women may need medication or insulin replacement to achieve good control.

5. Food choices with gestational diabetes

Making small changes to your diet and lifestyle can help you control your blood glucose levels. Your diet should be healthy and well balanced. It is not necessary to purchase 'special diabetic food'.

Eat regularly, ideally three main meals daily e.g. breakfast, lunch and evening meal.

If you feel hungry or are taking insulin, you may need to plan for a small healthy snack in-between meals.

Cut down on sugar and sugary food and drinks. It is important to avoid foods and drinks that cause a rapid rise in blood sugar levels.

- Use sweeteners in place of sugar or honey eg: Splenda, Canderel, Sweetex
- Swap to diet, sugar free, or no added sugar alternative beverages
- Bedtime drinks e.g. malted drinks, hot chocolates (including low fat options) can be high in sugar content, try and swap to low calorie options
- Choose tinned fruits in natural juice instead of syrup

- Avoid sugar coated cereals
- Thin spread of jam or marmalade. Not necessary to purchase diet or diabetic products

It is important to have foods from a variety of food groups:

- Starchy carbohydrates
- Fruit and vegetables
- Protein
- Milk, dairy foods or calcium rich products
- Some fat



Starchy carbohydrates

Starchy carbohydrates are a good source of energy for the body. At each meal, include a portion of starchy carbohydrate food.

Examples of starchy carbohydrates are bread, rice, potatoes, breakfast cereals, pasta, chapatti, naan, pitta, noodles, couscous, bulgar wheat, crackers, crispbread.

Choose wholemeal or wholegrain carbohydrates. They tend to release glucose more slowly and produce a smaller rise in blood glucose and they keep you fuller for longer. Examples are granary bread, basmati rice, brown rice, whole meal pasta, unsweetened muesli, porridge, sweet potatoes.

- 1 portion =
- 2-3 egg size new potatoes
 - 1-2 slices of bread, chapatti, pitta, naan
 - 75g uncooked rice (180g cooked)
 - 75g dried pasta (230g cooked)
 - 40g cereal



Starchy carbohydrates are required as part of a healthy diet. A large portion will raise your blood glucose. If you are having a bigger portion of starchy carbohydrates, you may want to reduce the portion size and include more beans, lentils, pulses, vegetables and salad.

Fruit and vegetables

Fruit and vegetables contain vitamins, minerals and fibre. Eat plenty of vegetables, of any variety e.g. fresh, frozen, dried or tinned.

Aim for at least five portions of fruit and vegetables per day.

Some people are concerned about having fruit because they contain natural fruit sugar. Too many fruits or too much natural fruit juice can affect your blood glucose levels. However, they can be a nutritious snack and contain vitamins and minerals which your body needs.

Try and spread your fruit portion evenly across the day. Have one portion with your meal or as a healthy snack.

One portion is:

- One medium apple, pear, peach, orange, small banana
- One slice of melon
- Small handful of grapes
- Large handful berries (150g)
- Two small fruits: satsumas, kiwi, plums
- Half grapefruit or mango
- 100ml unsweetened fruit juice (try and consume it with a meal, maximum 2 juice portions per day as it contains lots of natural fruit sugar)
- Small bowl of salad
- 2-3 heaped tablespoons of vegetables, pulse, beans or lentils
- 30g dried fruit

Protein

Examples of protein rich foods are meat, fish, eggs, beans, lentils, pulses, nuts, cheese, dhal, quorn or tofu. They provide a good source of iron.

- Try and have two portions of protein foods daily
- Try to eat one portion of oily fish per week (maximum two portions per week)
- Choose lean meat, remove skins and trim off visible fat
- Limit fatty or processed meat for example: luncheon meat, sausage, salami, processed ham

One portion is:

- 75g (deck of cards size) meat
- 100g cooked fish
- 125g beans and lentils
- 100g soya, quorn or tofu.

Milk, dairy food and calcium rich products

Examples of milk, dairy foods and calcium rich products are milk, cheese, yogurt, calcium enriched soya, oat, rice, nuts milk or tofu. They provide good calcium for bone health.

Try and have three portions of calcium rich food daily.

One portion is:

- 200ml milk or milk alternatives
- 150g pot of yogurt (Some low fat dairy products may contain high sugar content, try and choose low sugar, diet or natural yogurt as lower sugar options)
- 25- 30g (small match box size) cheese

Check if soya alternatives are enriched with calcium. Other non dairy food containing some calcium are green leafy vegetables, broccoli, tofu, beans, dahl, sardines, almonds and tahini.

Fat

A high fat diet could increase risk of heart disease and causes weigh gain. It is best to reduce fatty foods in diet, especially when trying to control weight during your pregnancy.

- Limit sweets, cakes, biscuits, pastry and crisps
- Choose reduced fat spread, dressing, mayonnaise and sauces
- Olive/rapeseed oil spreads are recommended, but they are still as high in calories as saturated fats
- Choose reduce fat cheese and dairy products. Try lower fat cheese: edam, cottage cheese, low fat cheese spread
- Use oil sparingly in cooking. Avoid frying or roasting. Try healthier cooking methods: steaming, grilling, boiling and poaching.

6. General Guidelines for Expectant Mothers

Folic Acid

This is a vitamin vital for healthy foetal development. Take 400 micrograms daily from when you are trying to conceive, until the end of 12 weeks of pregnancy. You should also include folate rich diet (green leafy vegetables, fortified bread and cereals).

Vitamin D

Oily fish (e.g. salmon, sardines), margarine, cheese and eggs are a good source of vitamin D and will help to absorb calcium from the diet.

It is recommended you take 100 micrograms of vitamin D each day throughout your pregnancy. You should also carry on taking this if you plan to breastfeed.

Other supplements

It is not recommended to take vitamin A supplements or any supplement containing vitamin A (retinol), as too much could harm your baby. You should only take further vitamin supplements only after having a discussion with doctor, midwife or pharmacist to check if it is suitable during your pregnancy.

Weight gain during pregnancy

The healthy range prior to pregnancy is 20-25kg/m².

Pregnant women should aim for the below amount of weight over the whole pregnancy:

Overweight BMI= above 30kg/m ²	1 stone (6kg)
Normal weight BMI=18-25kg/m ²	2 stone (12kg)
Underweight BMI= below 18kg/m ²	3 stone (19kg)

Avoid excess weight gain, especially if you were overweight prior to becoming pregnant. It is also important not to aim for weight loss during pregnancy, but healthy diet and lifestyle changes may help to prevent excess weight gain.

Keep active

Physical activity can help to manage blood glucose levels and stay healthy. Safe gentle examples are swimming, water aerobics, gardening. Regular walking after your meal can help you use up some extra glucose in your blood.

You should consult your doctor or nurse before starting or continuing any form of physical activity.

7. Healthy eating ideas

Breakfast:

- Wholegrain/ high fibre breakfast cereal semi skimmed milk
- Wholegrain/ granary toast with low fat spread and thin spread of jam/marmalade, marmite or peanut butter
- Porridge made with oats and semi skimmed milk (topped with nuts or fresh/dried fruits)
- Unsweetened muesli with semi skimmed milk or diet/ low sugar yogurt

Light meals:

- Wholegrain/ granary sandwich (2 slices of bread) with lean meat/fish and salad
- Wholegrain/ granary toast (1-2 slices) with: reduced sugar baked beans/ sardines in tomato sauce/ scrambled eggs/ reduced fat cheese
- Small jacket potatoes with low fat filling and salad
- Soup and wholegrain/ granary bread roll

Main meals:

- Lean meat/ fish/ egg/ beans/ lentils/ pulses/ cheese with vegetables or salad with wholemeal pasta/ noodles/ bread/ or boiled potatoes
- Meat/ fish/ beans/ lentils/ pulses/ vegetable curry with brown/ basmati rice/ wholemeal chapatti/ naan bread
- Ham, chicken, egg or cheese salad with new potatoes
- Chilli con carne with rice

Desserts:

- Diet/ low calorie yogurt or fromage frais
- Sugar free Angle Delight/ jelly/ custard
- Fresh fruit
- Tinned fruit in natural juice with single cream or one scoop of ice cream

Healthy snacks:

- A piece of fresh fruit
- A pot of diet/ low calorie yogurt or fromage frais
- A slice of wholemeal/wholegrain toast
- A small bowl of high fibre breakfast cereal
- 1-2 pieces High fibre biscuits/ crackers/ oat cakes/crisp bread/plain biscuits
- Small cubes of low fat cheese (try edam/ cottage cheese)
- Vegetable sticks with low fat hummus
- A glass of semi skimmed milk or low calories chocolate drinks
- A handful of unsalted nuts or roasted beans
- Boiled egg.

8. Foods to avoid or to be careful with

Food borne illness can be harmful and may cause miscarriages, still births or acute illness. Take extra care with the following foods

Avoid	Be careful with
Raw and partially cooked meats, raw chicken, eggs and shellfish	Handling raw meats and poultry. Store raw meat separately from cooked foods
Soft ripened cheeses (example: brie,	

camembert, goats cheeses), Soft blue veined cheeses. All unpasteurised dairy products	
Pate, liver and liver products	
Shark, marlin, swordfish	Limit canned tuna to four medium cans per week. Keep oily fish (example: salmon, fresh tuna, sardines, mackerel) to maximum two servings per week
Limit or avoid alcohol intake. (It is best to avoid alcohol throughout pregnancy)	
	Have no more than 200mg caffeine daily. Take care with coffee, tea, cola, high energy drinks and chocolate. No more than two mugs of coffee or three cups of tea daily.

9. Food labelling

When reading food labels, always look at the ‘**per 100g**’ of food column. Try and choose as many foods in the ‘low’ category as possible. You should try not to eat too much of foods in the ‘high’ category.

The table below shows how high, medium and low levels of fat, saturated fat, sugar and salt in foods.

All measures as 100g/ml

	High	Medium	Low
Fat	More than 17.5g	3.1g-17.5g	3g or less
(Fat) saturates	More than 5g	1.6g-5g	1.5g or less
Sugars	More than 22.5g	5.1g-22.5g	5g or less
Salt	More than 1.5g	0.31-g1.5g	0.3g or less

Some foods have traffic light labelling on their packaging. The colours on the label show you whether the amount of fat, sugar or salt in the food is high, medium or low. Try and choose green or amber for healthier option.



Example of traffic light labelling for a half pizza:

SERVES 2 - HALF PIZZA PROVIDES				
CALS	SUGAR	FAT	SATFAT	SALT
495	9.0g	18.3g	9.2g	2.00g
25%	10%	26%	46%	33%
OF YOUR GUIDELINE DAILY AMOUNT				



Important things to remember:

Healthy eating is highly recommended during pregnancy and after you have your baby.

Further resources:

You may find further useful gestational diabetes information from the below websites:

www.nhs.uk

www.bda.uk.com

www.diabetes.org.uk

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Languages/ Alternative Formats

Please ask if you require this information in other languages, large print or audio format. Please contact: 01895 279973

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