

# Dietary advice for the management of diabetes during pregnancy

Information and advice for patients with diabetes who are pregnant

## Nutrition and Dietetics

### Diabetes in pregnancy

It is very important to maintain your blood glucose levels within the target ranges to avoid weight and health problems for you and your baby at birth and beyond.

### How to keep blood glucose levels within the target ranges

When foods containing carbohydrates are eaten they are broken down into glucose (sugar). This glucose then enters the blood stream causing your blood glucose levels to rise. Reducing the amount of carbohydrate in the diet and changing the types of carbohydrates you eat, will help to control blood glucose levels.

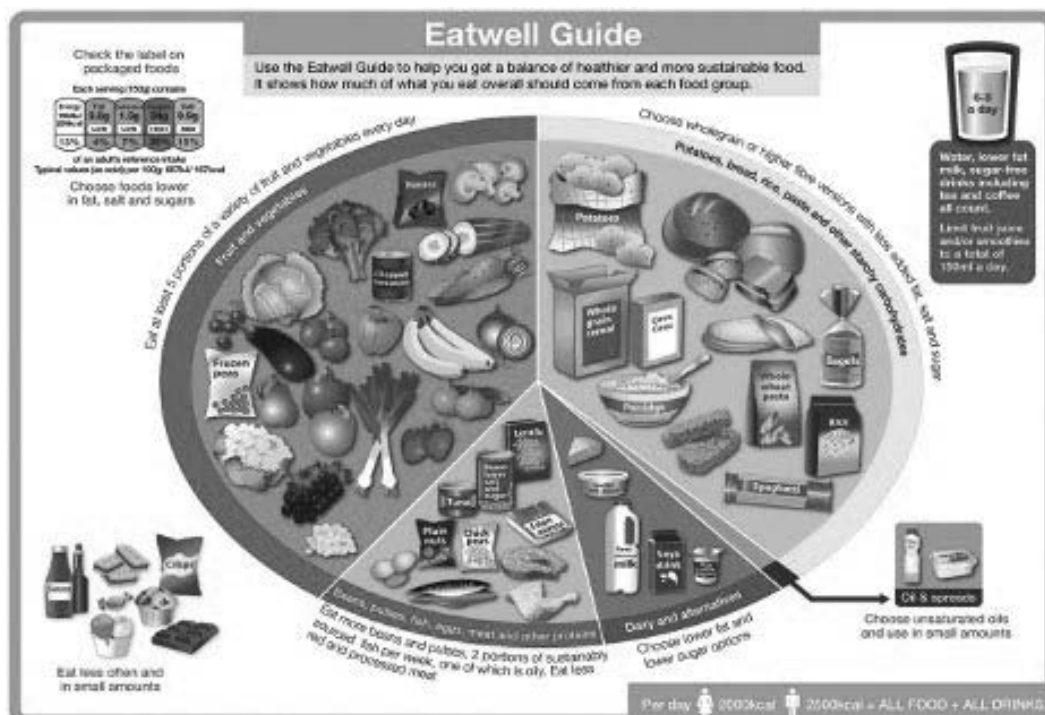
### Blood glucose target ranges in pregnancy

Fasting: 4 - 5.3mmol/l.

One hour after meals: 4 - 7.8mmol/l.

### Dietary advice

The dietary advice during pregnancy is based on the healthy eating principles of the Eatwell Guide.



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### Carbohydrates

Carbohydrates can be divided into the following groups:

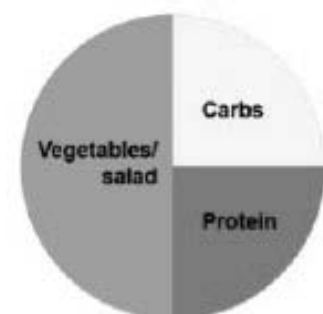
Carbohydrates		
Starchy carbohydrates	Foods containing sugar	
	Naturally occurring sugars	Added sugars
Foods made from flour - Bread / rolls/crackers - Chapatti /naan /roti - Wraps/ flatbreads - Pasta - Coatings ie. breaded or battered foods Rice Potatoes Breakfast cereals Oats/ oatmeal/ porridge Yam Fufu Plantain Eba / Garu Quinoa	Fruit Milk and yoghurt	Sweets Biscuits Chocolate Sugary/ fizzy /energy drinks Cakes / pastries Desserts / puddings Jam/ Marmalade Syrups/ Honey Ice-cream

### Recommended portions of starchy carbohydrates

If having a starchy carbohydrate at meal time, limit the portion size to a 1/4 or a 1/3 of your plate

Suggested portion sizes:

- ✓ Four tablespoons of cooked rice/ pasta/couscous
- ✓ Four egg-sized new potatoes
- ✓ One medium wrap/ chapatti/pitta/flatbread
- ✓ Half of a fist-sized portion of fufu/plantain
- ✓ Two slices of boiled yam
- ✓ Two medium slices of bread



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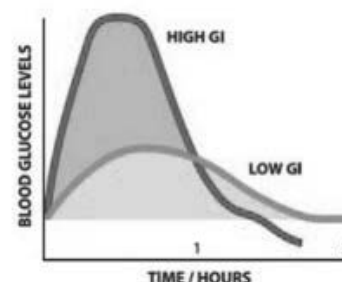
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### Glycaemic index

Choosing low glycaemic index (GI) foods can help to control blood glucose levels as these foods are digested more slowly.

See "Food Swaps" sections for ways to swap low-fibre high GI foods for high fibre low GI foods.



### Food Swaps

Instead of	Choose
<b>Added sugars</b>	
Adding sugar (any type) to tea, coffee or hot drinks	Artificial sweeteners in tablet, liquid or granulated form e.g. Stevia, Truvia, Splena, Canderel, Sweetex, Hermesetas
Chocolate, sweets or sugary puddings	Sugar free whips or sugar free jelly
Cakes, biscuits or pastries	Semi-sweet biscuits, rice cakes or crispbreads
Jam, marmalade, lemon curd, honey, maple or golden syrup	Reduced sugar varieties of jams or marmalades
Drinking chocolate	Low calorie instant drinks
Fizzy drinks, fruit juice, energy drinks, Ordinary squash or low sugar /light drinks	Water, skimmed or semi-skimmed milk, tea, coffee, low calorie, sugar-free, diet and/or slim line variety of fizzy drinks or sugar-free squash
<b>Natural occurring sugars</b>	
Tropical (eg. banana, mango, pineapple) or dried fruit	Berries, cherries, an apple, a satsuma, a pear or a plum
Tinned fruit in syrup or light syrup	Tinned fruit in natural juice (drained) or water
Sweetened dairy free milk	Unsweetened dairy free milk
Fruit flavoured or chocolate flavoured yoghurt	Plain, natural or Greek yoghurt

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Instead of	Choose
<b>Starchy carbohydrates</b>	
Granola, Cornflakes, Rice Krispies, Crunchy Nut Cornflakes or other high sugar breakfast cereals	Weetabix, Bran flakes, All Bran, Shredded Wheat or no added sugar muesli/granola
Quick cook oats	Jumbo oats
White bread	Multigrain, wholegrain, wholemeal or rye
Chapati or roti made with white flour	Chapati or roti made with gram flour or wholemeal flour
White pitta	Brown pitta
Chips or mashed potato	Wholemeal pasta, baked plantain or sweet potato
White rice	Brown or basmati rice
Crisps (produced from potatoes, which is a starchy carbohydrate)	Hummus and vegetable sticks, plain nuts, unsweetened popcorn, two wholegrain crackers with meat/cheese/peanut butter or two oatcakes with cheese/peanut butter

## Steps to keep blood glucose levels within target range

### Eat regular meals

- You do not need to 'eat for two' even if you are expecting twins or triplets. Aim to have 3 small meals (and 2-3 snacks if needed) and avoid skipping meals

### Avoid foods and drinks high in sugar

- This includes cakes, biscuits, sweets, honey or fizzy drinks etc. (see "Food Swaps" section)

### Reduce portions of carbohydrates

- You can include 1 type of starchy carbohydrate at each meal (e.g. bread, chapati, roti, cereal, rice and potatoes) but avoid large portions
- Choose high fibre, low glycaemic index (low GI) carbohydrate. (see "Food Swaps" section)

### Add protein to each meal

- Food high in protein includes meat, poultry, fish, eggs, tofu, nuts, seeds, peas, lentils or beans etc.

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- Including foods high in protein with a meal can help to reduce the post-meal rise in blood glucose levels

### Increase intake of vegetables

- Including vegetables and salad within a meal can help to reduce the post-meal rise in blood glucose levels

### Limit intake of fruit

- Fruits contain natural sugars which impact blood glucose levels
- Limit fruit intake to 2-3 'handful-size' portions daily
- Eat fruit between meals, not with meals
- Avoid fruit juice and fruit smoothies due to high sugar content which can cause a rapid rise in blood glucose levels

### Ensure regular intake of milk and dairy or fortified non-dairy milk alternative

- Cow's milk contains natural sugar (lactose) which impact blood glucose levels, but also contains calcium and protein which are very important in the diet
- Aim to have 2 to 3 portions of dairy per day
- A portion equates to a small matchbox size of hard cheese, 1/3 pint or 200mls of milk and 125g pot of yoghurt (see "Food Swaps" section for suitable yoghurt options)

## Additional dietary and lifestyle advice in pregnancy

### Fish

- Limit tuna intake to 2 steaks or 4 medium cans per week
- Limit intake of oily fish (salmon, trout, mackerel or herring) to 2 portions of oily fish per week

### Drinks

- Aim to have 6-8 cups of sugar free fluid per day
- Suitable drinks include, water, tea, coffee, sugar free squash/cordial

### Caffeine

Limit caffeine intake to 200mg per day

- 1 mug of instant coffee= 100mg
- 1 mug of filter coffee= 140mg
- 1 mug of tea (green tea can have the same amount of caffeine as regular tea)= 75mg
- 1 can of cola = 40mg

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### Herbal teas

- If you drink herbal tea, limit intake to 4 cups per day

### Alcohol

- Drinking alcohol in pregnancy can cause harm to your baby. If you are pregnant the safest approach is to not drink alcohol.

### Vitamin supplements

- Women with diabetes who are planning a pregnancy or are pregnant should take folic acid (5 mg/day) until 12 weeks of gestation
- If your diet is low in vitamin D, take a supplement containing 10mcg per day (400 IU). Check the supplement is safe for use in pregnancy with your GP or pharmacist.
- Healthy Start vitamins (one per day) contain 10mcg of vitamin D. For more information about Healthy Start vitamins, please go to: <https://www.healthystart.nhs.uk/getting-vitamins/>

### Exercise in pregnancy

- Physical activity lowers blood glucose levels
- If you do not usually exercise, start with 15 minutes of walking 3 times a week and gradually increased to 30 minutes of walking daily
- For more information on Exercise in Pregnancy please go to: <https://www.nhs.uk/pregnancy/keeping-well/exercise/>

### Food safety and hygiene advice

- ✓ Wash all fruit, vegetables and salad with cold water to remove all traces of soil
- ✓ Clean all surfaces and cooking utensils
- ✓ Wash your hands before cooking or preparing food and after handling raw food, including meat and chicken
- ✓ Ensure your fridge is 5°C or below
- ✓ Store raw and cooked food separately in your fridge
- ✓ Use a separate knife and chopping board when preparing raw meat or chicken
- ✓ Ensure takeaways and ready meals are heated thoroughly and piping hot
- ✓ Cook chicken, burgers, sausages and whole cuts of meat thoroughly
- ✓ Cool cooked leftover food quickly at room temperature and then place in the fridge within one to two hours

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- ✓ Defrost food in the fridge, not at room temperature
- ✓ Do not eat foods after it's "use by" date

## Foods to avoid in pregnancy

- ✗ Unpasteurised milk or cream and foods made from unpasteurised milk or cream
- ✗ Soft cheeses including Brie, Camembert, Chèvre, Danish blue, Gorgonzola and Roquefort
- ✗ Raw or undercooked meat and chicken (avoid meat or chicken that has traces of pink or blood)
- ✗ Liver and liver products
- ✗ All types of pâté, including vegetarian pâté
- ✗ Raw or partially cooked hen eggs that are not British Lion
- ✗ Swordfish, marlin, shark, raw shellfish
- ✗ Cod liver oil or any supplement containing vitamin A (choose a vitamin supplement safe for use in pregnancy)

## Sources used for the information in this leaflet

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Diabetes UK. (2022). *Your guide to gestational diabetes*. [Online] Available at: <https://shop.diabetes.org.uk/products/gestational-diabetes-guide> (Accessed 7th June 2023)

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National Health Service. (2019). *Gestational diabetes: treatment*. [Online]. Available at: <https://www.nhs.uk/conditions/gestational-diabetes/treatment/> (Accessed 7th June 2023).

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## Further information

### National Health Service

Pregnancy information

<https://www.nhs.uk/pregnancy/>

### National Health Service

Gestational diabetes

<https://www.nhs.uk/conditions/gestational-diabetes/>

### Diabetes.co.uk

Gestational diabetes

<https://www.diabetes.co.uk/gestational-Diabetes.html>

### Better health, start for life

Healthy eating

<https://www.nhs.uk/start4life/pregnancy/healthy-eating-pregnancy/>

### Food standards agency

<https://www.food.gov.uk/>

(All websites accessed June 2023).



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Incorporating City, Sandwell and Rowley Regis Hospitals

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ML6731

Issue Date: February 2024

Review Date: February 2027