

Healthy Eating for Diabetes

Patient Information Leaflet

What is diabetes?

Diabetes is a condition in which too much glucose (sugar) builds up in the blood. Normally the pancreas (a gland behind the stomach) produces a hormone called insulin to control the level of glucose in the blood. In diabetes the body is unable to use the insulin or does not produce enough to keep the glucose level within a normal range. This means that when you have diabetes the level of glucose in the blood rises. Possible complications associated with diabetes such as poor circulation, blindness and increased risk of coronary heart disease are preventable with good management of diabetes.

How to treat diabetes

There is no cure for diabetes but it can be controlled effectively by following a healthy diet, being active and taking any medicines that your doctor may prescribe for you.

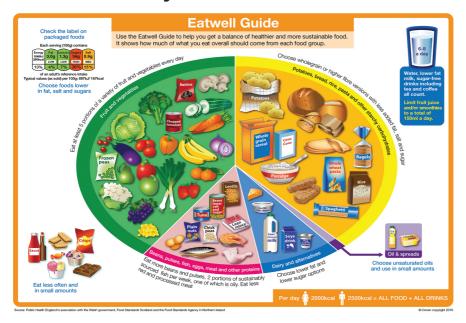
Eating for health with diabetes

A balanced diet is important for health, along with being physically active.

A regular eating pattern is recommended, between 2-4 meals a day, ideally spread evenly throughout the day.

A healthy diet consists of: Protein Vegetables, salad and fruit Wholegrain and starchy carbohydrates Milk, dairy and alternatives Healthy fat

What is a healthy diet?



Protein

Aim to have 3 portions of protein every day. Protein is important for growth and repair of muscles and wound healing.

1 portion is:

60-90g cooked meat/poultry (beef, lamb, pork, chicken, turkey) and oily fish (salmon, mackerel)

140g white fish (cod, haddock)

2 eggs

4 tablespoon pulses (lentils) / beans (kidney beans, 200g or $\frac{1}{2}$ tin baked beans)

30g nuts

Vegetables, Salads and Fruit

An important source of fibre which makes you feel fuller for longer, low in calories and bursting with vitamins. Aim to eat 5 portions of vegetables or salad, along with a portion of fruit.

Example: Aim to eat 5 portions of vegetables, salad or fruit (maximum 3 portions of fruit daily)

1 portion is:

3 heaped tablespoons of vegetables
Cereal bowl size of salad
Medium size fruit/ tennis ball size (apple, pear, orange)

2 small fruits (satsuma, plum, kiwi)

80g or small handful grapes or cherries

1 tablespoon dried fruit (raisins, sultanas) / 1 date

Vegetables can be fresh, frozen or tinned in water.

Make up half of your plate with vegetables or salad.

Fruit is a carbohydrate, high in natural sugars so restrict to 1 portion with your meal and up to 3 portions a day.

Fruit can be fresh, frozen, dried or tinned in juice rather than syrup and remember large portions can affect your blood glucose.

- Make vegetables or salad a large part of your meals.
- Vegetables can be fresh, frozen or tinned in water.
- Fruit can be fresh, frozen, dried or tinned in juice.
- Fruits are high in natural sugars so it is important to spread the portions out throughout the day.



Carbohydrates

They are an important source of energy, fibre and B vitamins which provide energy

These foods convert to glucose which can directly impact your blood glucose levels. Aim to have 1, 2 or 3 portions per meal and remember that more than this could cause your blood glucose levels to rise too high.

1 portion size is:

1 medium slice of bread

3 tablespoons of breakfast cereal (25g) or 1 weetabix

2-3 tablespoons (40-50g) cooked rice / pasta / cous cous or noodles

2 potatoes (egg size) or ½ fist size jacket potato

½ chapatti /½ roti /½ pitta

Choose wholemeal / high fibre varieties such as:
Bread – wholemeal, wholegrain or granary
Breakfast cereal – Weetabix, porridge, shredded wheat
Rice – whole grain, basmati
Beans or pulses – lentils, peas, beans – use in soups and stews
or salads

Fats

Aim for up to 1 portion per meal.

1 portion is:

- 2 teaspoons of spread / butter / oil.
- 2 teaspoons of mayonnaise.
- 1 tablespoon cream.

Reducing your fat intake can help to control your weight, blood glucose and cholesterol levels (cholesterol is a type of fat in the blood). It can also help to reduce your risk of coronary heart disease.

- Avoid frying. Use other cooking methods instead, such as grilling, baking, steaming, poaching, microwaving or casseroling.
- Grill or cook meat in the oven on a rack so that some of the fat can drip away.
- Cook without adding oil if you can. If you need to add some oil use a small amount of Cold Pressed Rapeseed Oil or Extra Virgin Olive Oil
- To control amounts of oil used, rather than pouring from a bottle always measure oil using a spoon or use a spray or a pastry brush to spread it thinly.
- Spread butter or margarine very thinly. Try to use a low fat spread, preferably olive oil based.
- Use salad dressing sparingly. Choose an olive oil based dressing.



Reduce Saturated Fats

- Eat less tinned and processed meat products (e.g. sausages, burgers, corned beef, salami, pepperoni and patè) which are high in saturated fat.
- Choose lean meats. Trim any visible fat off the meat and remove skin from poultry before cooking.
- Try using less meat and more beans, lentils, peas and other vegetables in casseroles, stews, curries and sauces.
- Choose tomato or vegetable based sauces rather than creamy or cheese sauces.
- Use low-fat dairy products such as semi-skimmed or skimmed milk, low fat cheese (Edam, cottage cheese, Quark, low fat mozzarella, low fat ricotta), if you want to reduce calories.
- Nuts are suitable if you are using them to replace meat in a vegetarian dish. However, it is best to choose unsalted varieties in moderation.
- Reduce the consumption of high fat foods e.g. chips, pies, pastries, take-away food, crisps, biscuits, chocolate and cakes.

Tip

Choose low fat, healthier options but be aware that some foods labelled 'low fat' may still contain high amounts of saturated fat.

Types of Fats:

Monounsaturated Fats	Polyunsaturated Fats	Saturated Fats			
Olive oil	Sunflower oil	Butter			
Rapeseed oil	Sesame seed oil	Cheese			
Some vegetable oils	Soya bean oil	Meat fat			
Groundnut/Peanut oil	Walnut oil	Milk			
Almond, Hazelnut	Oily fish	Cream			
Avocado	Other nuts & seeds	Coconut oil			
		Palm oil			
Trans Fats					
Hydrogenated fat in:					
Processed foods					
Take-aways					

If you eat too much saturated or trans fat it can increase the amount of cholesterol in your body and increase your risk of heart disease.

Saturated fat is mainly from animal sources e.g. butter, cheese, meat fat, milk and cream. It can also be found in coconut and palm oil. Many processed foods are high in saturated and trans fats.

Try to limit saturated fat. Use unsaturated fats, preferably monounsaturated fats instead.

Some ways to choose healthier fats

- Eat less red meat and have more poultry and fish which has less saturated fat. Aim for 2 portions of fish a week, a white fish (cod, haddock or tinned tuna) and an oily fish such as salmon or mackerel.
- Oily fish are good for your heart and include salmon, mackerel, trout, fresh tuna steaks, herring, pilchards, kippers and sardines. If tinned try to choose fish tinned in spring water or tomato sauce. If tinned, in oil or brine pour away the excess.
- Use healthy fats for cooking and spreading monounsaturated based oils and spreads e.g. rapeseed oil, low fat olive spread.

Cut down on sugar and sugary foods

Sugar and sugary foods can directly affect your blood glucose levels, it is therefore important to limit these foods in your diet.

Foods high in sugar	Low sugar or sugar free
Reduce these	Try these instead
Sugar, glucose, dextrose, sucrose, Fruit sugars (fructose), Maltodextrin	Artificial sweeteners (Nutrasweet, Spenda, Sweet'n Low) Natural sweeteners (Stevia, Truvia) Sugar alcohols (Xylitol, Sorbitol, Erythritol, Mannitol) Powdered sweeteners can be used in small quantities e.g. Canderel®, Hermesetas®

Squashes, fizzy drinks e.g. cola, lemonade, lucozade®	Water, No added sugar or sugar-free squashes, diet or slimline drinks	
Hot chocolate and malted drinks	Reduced sugar hot chocolate or malted drinks e.g. Options, Highlights, Cocoa	
	Plain breakfast cereals e.g. Weetabix, porridge oats, Shredded wheat	
Sweet puddings and desserts e.g. pies and tarts, trifle, jelly, cheesecake, sponge puddings, tinned puddings, ready-made custard and instant whips	Low sugar or sugar free varieties of puddings with an artificial sweetener e.g. reduced sugar tinned rice, custard, instant whip, sugar free jelly, natural or greek style yoghurt or homemade puddings using sweeteners	
Jam, marmalade, honey, lemon curd, syrup, treacle	Thin scraping of ordinary jam or marmalade	
Sweets, chocolate, toffees,	Sugar free sweets or chewing gum	
Fancy cakes, pastries	Tea cakes, crumpets, malt loaf, pancakes, scones or plain sponge	
Chocolate or cream filled biscuits, shortbread	Plain biscuits e.g. wholemeal and bran biscuits, Rich Tea, Digestives, Garibaldi, crackers, oatcakes, rice cakes, cracker bread, rye bread or crisp bread	
Tinned fruit in syrup, fruit stewed with sugar	Fresh fruit, tinned fruit in natural juice, fruit stewed without sugar (add an artificial sweetener to taste	

Milk & Dairy

Aim to have some milk and dairy every day, with meals. To ensure you have enough calcium in your diet, try to include 3 portions daily.

Choose low fat options if you are managing your weight.

1 Portion is:



200mls ($\frac{1}{3}$ pint) milk

80g (3oz) cream cheese or cheese spread

1 small pot (200g) of cottage cheese

30g (1oz) small match-box sized piece of cheese

1 small pot of yoghurt (125g) or 1 small 150g (5oz) pot of fromage frais

These can all be useful as a dessert.

Salt

Eating too much salt can raise your blood pressure.

It is recommended that we have less than 6g of salt per day.

A lot of the salt in our diet comes from ready made, processed foods.

Try to reduce the level of salt in your diet by:

- Using fewer tinned, pre-packaged and convenience foods, especially ready meals, soups, sauces, crisps and cured meats.
- Try not to add salt at the table, taste your food first.
- Try to use herbs and spices to flavour foods e.g. mint, pepper, parsley, garlic (not garlic salt).
- Using only a finger pinch of salt in cooking, if needed.
- Limit the use of stock cubes, Marmite, yeast extract and soy sauce.
- Avoiding all salt substitutes e.g. Lo-salt, Ruthmol, So-low.
- Remember that other types of salt e.g. rock salt and sea salt are no different to other salts and have no health benefits.

Tip

Foods may initially taste bland but within 2-3 weeks, taste receptors in the mouth become more sensitive to salt and detect flavours more easily when you start using herbs and spices.



Meal Ideas

Breakfast

- Porridge, Shredded Wheat, Weetabix, with milk, nuts, seeds, yoghurt and blueberries
- Poached, boiled or scrambled egg on granary, wholemeal or multigrain toast

Lunch or Light Meals

- Vegetable or pulse based soups e.g. lentils, peas, carrot and butter beans served with a bread roll.
- Tinned fish (drained), baked beans or spaghetti on toast.
- Jacket potato with tuna, baked beans, cottage cheese, chilli con carne or prawns, served with salad.
- Granary or wholemeal sandwich, toastie, pitta bread or roll filled with one of the following:
 - lean meat, salad and pickle
 - low fat cream cheese, lettuce and tomato
 - tuna, salmon, prawn or crab meat with cucumber tomato and lettuce
 - egg and cress
 - _ chicken or turkey with salad and mayonnaise
 - prawns and low fat soft cheese or avocado
 - low fat cheese with spring onions and/or tomato
 - nut butter and tomato

Main Courses

- Spaghetti Bolognese served with a salad or vegetables.
- Shepherds pie or cottage pie with vegetables.
- Lean roast or grilled meats with potatoes (boiled, mashed or jacket), vegetables and a small serving of gravy.
- Chilli con carne or lentil, tomato or vegetable based curry with basmati rice and salad or green leafy vegetables.
- Stir-fried vegetables, chicken, turkey or pork, a few tablespoons of cooking sauce served with basmati rice or noodles.
- Pasta with a tomato based sauce, vegetables and grilled lean bacon or chicken.
- Stew or casserole made with lean meat, potatoes, pulses with lots of vegetables.
- Fish poached, oven baked or grilled with potatoes and vegetables.
- Omelette boiled or jacket potato and salad.
- Grilled fish or fish fingers with mushy peas and low fat oven chips.



Reading Food Labels

Checking how much fat, salt and sugar there are in foods can help you to make healthier choices.

The table below is a guide to healthier choices when looking at the amounts of these per 100g.

All measures per 100g	Low – a healthier choice	Medium – ok most of the time	High – just occasionally
Sugars	5g or less	5.1-15g	More than 15g
Fat	3g or less	3.1-20g	More than 20g
Saturated fat	1.5g or less	1.6-5g	More than 5g
Salt	0.30g or less	0.31-1.5g	More than 1.5g

Ingredients are listed with the biggest ingredient first. Try to choose foods with less salt, sugar and unhealthy fats.

The following may appear on labels when sugar has been added:

Sugar

Sucrose

Glucose

Fructose

Dextrose

Molasses

Syrup

Maltodextrin (glucose polymer)

Inverted syrup

Glucose-fructose syrup

Invert glucose-fructose syrup

Honey

Alcohol

There is generally no reason why people with diabetes should not drink alcohol, unless otherwise advised by your doctors.

It is important to stick to sensible limits of less than 14 units for men and women per week.

spread over the week, with at least 2 alcohol free days.

As a general guide:

1 pint of ordinary strength beer, lager or cider = 2 Units

1 pint of strong strength beer, lager or cider = 3 Units

1 pub measure of spirits = 1 Unit

175ml glass of wine = $1\frac{3}{4}$ -2 $\frac{1}{2}$ Units (depending on alcohol content)

1 bottle of alcopop = 1½ Units

Drinks can vary in alcohol content. See individual drinks labels for unit guidance.

Alcohol and Diabetes:

- Alcohol can lower blood glucose levels, extending up to 16 hours afterwards drinking. Blood glucose levels need regular monitoring.
- Alcohol can increase blood glucose at first, depending on the drink.
- Alcohol is high in calories, so reducing intake can be a good way to promote weight loss.

General advice to consider:

- Do not drink on an empty stomach.
- Limit drinks with a high sugar content e.g. sweet sherry, cider, liquors, cocktails, tinned cocktails, alcopops and stout.
- Always have a carbohydrate snack or meal during and after significant amounts of alcohol consumption.
- Use lower calorie or sugar free mixers.
- There is no benefit to drinking low carbohydrate beers and ciders as they have a higher alcohol content
- And alcohol free beers can have a high sugar content.

Illness

Any illness such as a cold, flu or infection can upset your diabetes control.

It is important that you continue to take your diabetes treatment when you are ill. **Never stop** taking your insulin or tablets as your blood glucose levels can rise, even when you are not eating properly.

If you start to feel ill and are unable to eat normally, make sure that you drink plenty of fluids and have some sugary drinks or easy to manage foods e.g. soup, yoghurt, orange juice. Stock up on these for when needed.

If you live alone let someone know that you are feeling unwell.

Monitor your blood glucose levels more frequently.

If you are unable to control your diabetes or have any concerns you should contact your Doctor or Diabetes Specialist Nurse.

Managing your weight

Being overweight is a risk factor to developing secondary complications and so it is important to be at an ideal weight for your height.

Your body will also not be able to use insulin as well as it should, which means your diabetes control may not be as good as it could be.

Weight loss can also help to improve your cholesterol levels, blood pressure and quality of life.

Remember small changes can make a long lasting difference.

Useful weight management strategies:

- Planning is key to successful and permanent weight loss:
 - Write a shopping list and stick to it.
 - Plan meals for each day or week.
 - Replace high sugar/ high fat snacks with healthy snacks e.g. fresh fruit, yoghurt, chopped salad or vegetables etc.
- Distractions take up a new hobby e.g. DIY, gardening, or go for a walk.
- Eat slowly and mindfully.
- Eat smaller portions.
- Drink a glass of water or reduced sugar drink before or after your meal.
- Ask your Dietitian or Nurse about a lifestyle and weight management programme that you may be eligible for.

Tip

Remember, a lapse is not a collapse! If you break your plans, look at ways you can return to your weight management and start again.

Get Moving!

Daily physical activity is needed to help achieve and sustain weight loss. It also has many other health benefits such as helping in loss of body fat, improving blood glucose and cholesterol levels. In addition it increases muscle tone and mental well being.

Try to limit sedentary activities e.g. watching TV, playing computer games.

Increase gentle physical activities e.g. increase steps per day, gardening, use the stairs more.

Aim for at least 30 minutes moderate physical activity on 5 days of the week. 'Moderate' means breathing more deeply, feeling your heart beat a little faster and feeling warmer e.g. walking, housework.

Try taking up an active hobby e.g. swimming, dancing or playing a sport.

Exercise in a chair can also be useful.

The key thing is to find something that you enjoy and make it a part of your lifestyle.



Goals	
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Useful Contacts

Diabetes Specialist Dietitian Arrowe Park Hospital 0151 678 5111 Ext 2114

Diabetes Specialist Nurse Arrowe Park Hospital 0151 678 5111 Ext 2484/2486/7536 Clatterbridge Hospital 0151 482 7772

Diabetes UK 10 Parkway, London, NW1 7AA 0207 424 1000 www.diabetes.org.uk

Diabetes UK North West 01925 653281 n.west@diabetes.org.uk

Community Dietitians 0151 604 7271

This leaflet is available in large print, Braille and on tape. Please contact 0151 604 7289 if calling from outside the Hospital and x2761 if calling from inside the Hospital.



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