

## Department of Nutrition and Dietetics

# Healthy Eating with Diabetes

## This leaflet is for people with diabetes

### What is diabetes?

Diabetes is a common condition in which the amount of glucose (sugar) in the blood is too high. This is because the body's method of changing glucose into energy is not working as it should.

We obtain glucose from the food that we eat, either from sugary foods or from the digestion of starchy foods such as bread or potatoes. The liver can also make glucose from other foods.

Normally, a hormone called insulin carefully controls the amount of glucose in our blood. Insulin is made by a gland called the pancreas. It helps the glucose to enter the cells where it is used as fuel by the body.

If somebody has diabetes, the glucose in their body is not turned into energy, either because there is not enough insulin in their body, or because the insulin that the body produces is not working properly. People with uncontrolled diabetes may feel tired, lose weight, pass large amounts of urine and become thirsty due to their blood glucose being too high.

- **Type 1 diabetes** is treated by a healthy diet and injections of insulin.
- **Type 2 diabetes** is treated by a healthy diet or by a combination of a healthy diet and tablets. Sometimes people with Type 2 diabetes also have insulin injections.

The healthy diet for people with diabetes is the healthy balanced diet recommended for everyone, which means:-

- Eating regular meals and including starchy carbohydrate at each meal
  - Not skipping meals and spreading your three meals evenly throughout the day can help regulate your blood sugar levels
  - Starchy foods (Bread, chapatti, rice, pasta, breakfast cereals, potatoes, sweet potatoes and yam) at each meal will help stabilise blood sugar control
- Limiting how much sugar and sugary foods are eaten
- Reducing fat in the diet, especially saturated fats, due to increased risk of heart disease
- Avoiding adding salt when cooking or at the table

- Eating 5 or more portions of fruit and vegetables a day
- Losing weight if you are overweight and aiming to maintain a healthy weight

## Sugar & Sugary Foods

Reducing the amount of sugar and sugary foods in your diet can help to reduce daily blood sugar levels and long term diabetes control.

<b>Foods high in sugar (reduce in diet)</b>	<b>Replace with these alternatives</b>
Sugar, glucose, fructose, powdered sweeteners containing sugar eg. Sucron & Halfspoon	Artificial sweeteners such as saccharin, Sweetex, Canderel, Hermesetas, Splenda and supermarket own brands
Jam, marmalade, honey, syrup, treacle, lemon curd	Low sugar jam or marmalade, fruit spread
Squash and fizzy drinks containing sugar, e.g. Lucozade, Ribena, Cola	Sugar-free squash, or diet fizzy drinks, water, soda water, mineral water, slimline mixers, Ribena Really Light
Drinking chocolate, malted milk drinks	Tea, coffee, cocoa, low calorie drinks such as Options or Highlights drinks
Sweets, chocolates, toffees, mints, sugar-free sweets containing isomalt, Indian sweets such as burfi, jalebi, gulabjaman, halva, penda	Fresh fruit, sugar free mints or sugar-free chewing gum
Tinned fruit in syrup, jelly, instant whips, yoghurts and puddings sweetened with sugar	Fresh fruit, tinned fruit in natural juice, puddings sweetened with artificial sweeteners, sugar-free jelly, sugar-free instant whip, low-sugar rice pudding, diet or light yoghurt, small portion of ice cream
Sweetened condensed milk	Low fat evaporated milk
Fancy cakes, chocolate biscuits, jam or cream filled biscuits	Scones, currant buns (teacakes), crumpets, Plain biscuits - <b>these foods are low in sugar but are high in calories</b>

## Diabetic Foods

Don't be tempted to buy diabetic foods. They are expensive, can still affect your blood sugar levels and often have a laxative effect. They also contain just as much fat and as many calories as non diabetic foods. Occasional small portions of the ordinary product would be a better choice.

## Fats

Reducing saturated fat in the diet can help to reduce blood cholesterol levels and control weight. High cholesterol levels are associated with an increased risk of heart disease.

Replace saturated fats with unsaturated fats. Monounsaturated fat is much better for the heart. Although it is important to remember that these fats are still **high in calories** therefore are only required in small amounts.

**Sources of Saturated Fats:-** lard, butter, dripping, ghee, palm oil, coconut oil, full fat dairy foods, red meat, skin on meat, Saturated fats are also often used to make biscuits, cakes, crisps.

**Sources of Monounsaturated:-** olive oil or olive oil based spreads, rapeseed oil

**Sources of Polyunsaturated Fats:-** sunflower oil, walnut oil, oily fish i.e. salmon, trout, herring, pilchards, sardines, fresh tuna.

Here are some ideas to help:

- Grill, poach, boil, steam or casserole instead of frying.
- Choose a spread labelled 'low in saturates' rather than butter. Low-fat spreads are lower in calories but should still be used sparingly.
- Avoid fatty types of meat, e.g. belly pork, chopped ham and pork, pate, sausages, burgers.
- Cut all visible fat from meat and remove skin from chicken.
- Try to use lower fat cheeses such as reduced fat cheddar type cheese, cottage cheese, edam or low-fat soft cheese.
- Use skimmed or semi-skimmed milk in place of whole milk.
- Cut down on high-fat foods such as crisps, chips, roast potatoes, fish in batter, pastry, nuts, cream, coconut milk, salad dressing and mayonnaise. (Try fat-free dressing or mayonnaise as an alternative).
- Eat protein foods at main meals only. These are suggested portion sizes:
  - **90 -120g (3-4oz)** Lean meat or chicken
  - **120 -150 g (4-5oz)** Fish - Try to eat oily fish 2-4 times a week
  - **240g (8oz)** Beans / Pulses
  - **30g (1oz)** Hard cheese - try reduced fat hard cheese
  - **120g (4oz)** Cottage cheese
  - **3 – 4** Eggs per week

**Remember.....**

- Frequency: How often are you having fat?
- Amount: Are you eating too much fat?
- Type of fat: Are you eating the right types of fat?

**Salt**

Most of us eat more salt than we need. A high salt intake can raise blood pressure.

- Try to avoid using salt in cooking or adding salt at the table.
- Flavour foods with alternatives to salt e.g. black pepper, herbs, spices, vinegar, lemon juice, mustard, horse-radish sauce, or mint sauce.
- Processed foods such as cheese, bacon, smoked fish, crisps, salted nuts, stock cubes (very low salt stock cubes can be a good alternative) Oxo, Bovril, Marmite, 'Ready meals' and soup are all high in salt. Try to have them less often.
- Salt substitutes will not help you lose the taste for salt and are not normally recommended.

**Alcohol**

Alcohol may be taken in moderation if allowed by your GP.

**What are the recommended safe levels of alcohol?**

**Per day:** Up to **3 units** for men                      Men and women should aim to have  
                   Up to **2 units** for women                      at least 1 or 2 alcohol free days a week

**Alcohol- what's a unit?**

The Office for National Statistics have produced the following information about alcohol units:

1 unit	1.5 units	2 units	3 units	9 units	30 units
 Normal beer half pint (284ml) 4%	 Small glass of wine (125ml) 12.5%	 Strong beer half pint (284ml) 6.5%	 Strong beer large bottle/can (440ml) 6.5%	 Bottle of wine (750ml) 12.5%	 Bottle of spirits (750ml) 40%
 Single spirit shot (25ml) 40%	 Alcopops bottle (275ml) 5%	 Normal beer large bottle/can (440ml) 4.5%	 Large glass of wine (250ml) 12.5%	<p>Government advises alcohol consumption should not regularly exceed:</p>   <p>Men 3-4 units daily</p> <p>Women: 2-3 units daily</p>	
		 Medium glass of wine (175ml) 12.5%			

SOURCE: Office for National Statistics

### Remember.....

- Use sugar free mixers e.g. diet coke, diet lemonade, soda water, slimline tonic
- Choose ordinary beers and lagers rather than low-sugar beers such as Pils which are high in alcohol, high in calories and more expensive so are best avoided
- Avoid sweet drinks e.g. dessert wine, sherry, liqueurs, port, cider, Baileys
- Alcoholic drinks can be very high in calories so try to limit your intake if you are trying to lose weight

### If you are on insulin injections:

- **Never** drink on an empty stomach. You should always have something to eat before drinking
- **Do not** count the carbohydrate in alcoholic drinks
- **Always** have something starchy to eat whilst drinking alcohol or shortly afterwards e.g. crisps / sandwich. **Occasionally**, if you have drunk over the recommended amounts a late night meal on the way home may be useful i.e. burger, chips, curry & rice.
- **Always** have a starchy snack before going to bed even if your blood sugars appear normal or raised, to prevent hypos occurring during the night.
- **Always** carry glucose or sugar with you and diabetic identification, and explain the symptoms and treatment of a hypo to a friend.

## Weight Control

Weight control is an important part of good diabetes control. If you are overweight losing weight will help to improve your diabetes. Following the advice in this diet sheet about reducing fat, sugar and cutting back on alcohol will help to initiate weight loss.

It is still important to have regular meals and to reduce your weight slowly by gradually reducing your portion sizes and snacks.

Physical activity can also help to improve diabetes control and is an important part of weight loss. Activities such as walking, swimming, cycling, gardening and house work can all help to reduce weight.

It is always a good idea to check with your doctor or diabetes nurse before starting any new exercise regimen, especially if you are on insulin injections.

## Glycaemic Index

The Glycaemic Index (GI) is a scale that relates to the speed at which carbohydrate foods are absorbed. Low GI foods are absorbed into the blood stream slowly and high GI foods are absorbed quickly.

Being aware of healthy low GI foods can help improve diabetes control. Choosing more low GI foods means your blood sugar levels will rise more slowly, avoiding high blood sugar readings.

### Examples of low and high GI foods:

<b>Food Group</b>	<b>Low GI</b>	<b>High GI</b>
<b>Breakfast Cereals</b>	<b>Porridge All-Bran Muesli (no added salt/sugar) Special K</b>	<b>Cornflakes Rice Krispies</b>
<b>Bread</b>	<b>Granary - (high seed / grain content) Wholegrain Pitta Oatcakes</b>	<b>White Brown Wholemeal Bagels Crumpets</b>
<b>Pasta</b>	<b>All pasta made from durum wheat</b>	<b>Pasta not made from durum wheat</b>
<b>Potatoes</b>	<b>New potatoes Sweet potato</b>	<b>All other potatoes i.e. chips, mashed, boiled</b>
<b>Rice</b>	<b>Basmati or American long- grain rice</b>	<b>Other rice varieties</b>

## Getting a balanced diet.....

A healthy balanced diet can be achieved by eating the right proportions of foods in our diet.

### Fruit and vegetables

Eat a variety of different:-

**Fruits:** fresh  
           Tinned in juice  
           Stewed  
           Dried  
           Frozen  
           Fruit juice

**Vegetables:** fresh  
Frozen  
Salad vegetables

- Eat at least 5 servings of fruit and vegetables each day
- Try to have 3 or 4 pieces of fruit daily - this must be spread out through the day (Limit fruit juice to a small glass with meals)

### **Starchy foods (carbohydrates)**

**Bread and chapatti, other cereals, (such as rice, pasta and breakfast cereals) and potatoes**

- Try to use granary bread, basmati rice, pasta and high fibre breakfast cereals
- Have foods from this group at each meal
- Eat regular meals based on similar amounts of starchy foods each day
- This will help to control your blood glucose levels

### **Protein foods**

**Lean meat, poultry, fish, beans, eggs and alternatives** (see portions sizes in Fat section)

- Choose 2 portions each day
- Eat oily fish twice a week but not more than 4 times (i.e. salmon, trout, herring, pilchards, mackerel) Oily fish is rich in omega 3 fat which is linked to a reduced risk of heart disease

### **Milk and dairy foods**

**Milk, yoghurt, cheese**

Try and have 2-3 servings each day from this list:-

- 1/3 pint skimmed/semi skimmed milk
- 1 carton diet yoghurt
- 30g (1 oz) low fat cheese

### **Fatty and sugary foods**

**Fast foods, chocolate, sweets, puddings**

This does not mean you need to eat a sugar free diet. Small amounts of sugar can be used as an ingredient in foods and baking as part of a healthy diet.

Use sugar free squashes and diet fizzy drinks as sugary drinks will cause glucose levels to rise rapidly.

Use the suggested menu below to ensure you are eating a healthy balanced diet.

## Suggested menu

### Breakfast

Portion of fruit **or** small glass of fruit juice

**With** Porridge or cereal with low fat milk

**and/or** bread with suitable margarine / low-fat spread / reduced sugar jam

### Mid day meal

#### Choose food/s from each section:-

Choose a protein food:- meat / fish / egg / cheese / beans / pulses  
**(If more than one keep portion sizes small)**

Vegetables **or** salad

Choose a starchy food:-  
potatoes / rice / pasta / bread / couscous / yam / chapatti  
**(If more than one keep portion sizes small)**

Portion of fruit / diet or light yoghurt / low-sugar pudding

### Evening meal

#### Choose food/s from each section:-

Choose a protein food:- meat / fish / egg / cheese / beans / pulses  
**(If more than one keep portion sizes small)**

Vegetables **or** salad

Choose a starchy food:-  
potatoes / rice / pasta / bread / couscous / yam / chapatti  
**(If more than one keep portion sizes small)**

Portion of fruit / diet or light yoghurt / low-sugar pudding

## Your action plan

List below any changes you can make to improve your health:

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## Useful contacts

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### Local Diabetes Group

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**Diabetes UK Careline: 0845 120 2960**

**Website: Diabetes UK** <http://www.diabetes.org.uk>

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The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 6161 and we will do our best to meet your needs.

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