

food choices for people with diabetes

Healthy eating, along with regular physical activity, can help you to manage your blood glucose levels, reduce your blood fats (cholesterol and triglycerides) and maintain a healthy weight. Refer to the *Physical Activity and Type 2 Diabetes* information sheet for more about how to be active every day.

What should I eat?

To help manage your diabetes, your meals need to be:

- > An appropriate size – not too large.
- > Regular and spread evenly throughout the day.
- > Lower in fat, particularly saturated fat.
- > Based on high fibre carbohydrate foods such as wholegrain breads and cereals, dried beans, lentils, starchy vegetables and fruits.

On the following pages, we give information about different types of foods and their effect on our health:

Fats	page 2
Carbohydrates	page 3
Sugar/Alternative sweeteners	page 5
Protein	page 5
Alcohol	page 6

A typical one day meal plan:

Breakfast	page 7
Light meal	page 7
Main meal	page 7
Between meal snacks (if required)	page 8



Supporting the education programs of
Diabetes Australia State and Territory Organisations

Healthy eating for people with diabetes is no different to that which is recommended for everyone. There is no need to prepare separate meals or buy special foods, so relax and enjoy healthy eating along with the whole family!



food choices

Fat

Fats have the highest energy (kilojoule or calorie) content of all foods. Eating too much fat may make you gain weight which in the long run may make it more difficult to manage your blood glucose levels. On the other hand small amounts of healthier fats add flavour to your food, may improve your health and reduce your risk of heart disease. Therefore, the type of fat you eat is important, as well as the amount.

Saturated fat

It is important to limit saturated fat because it raises your LDL-C ('bad' cholesterol) levels. Saturated fat is found in animal foods like fatty meat, milk, butter and cheese. Vegetable fats that are saturated include palm oil (found in solid cooking fats, snack foods or convenience foods) and coconut products such as copha, coconut milk or cream.

To reduce saturated fat:

- > Choose reduced or low fat milk, yoghurt, ice cream and custard.
- > Choose lean meat and trim any fat off before cooking.
- > Remove the skin from chicken (where possible, before cooking).
- > Avoid using butter, lard, dripping, cream, sour cream, copha, coconut milk, coconut cream and hard cooking margarines.
- > Limit the amount of cheese you eat and try reduced fat and low fat varieties.
- > Limit pastries, cakes, puddings, chocolate and cream biscuits to special occasions.
- > Limit pre-packaged biscuits, savoury packet snacks, cakes, frozen and convenience meals.
- > Limit the use of processed deli meats (devon/polony/fritz/luncheon meat, chicken loaf, salami etc) and sausages.
- > Avoid fried take away foods such as chips, fried chicken and battered fish. Choose BBQ chicken (without the skin) and grilled fish instead.
- > Avoid pies, sausage rolls and pasties.
- > Avoid creamy sauces or dressings. Choose sauces based on tomato or other low fat ingredients and low fat dressings made from small amounts of polyunsaturated or monounsaturated fats (eg: sunflower, grapeseed, olive or canola oils). Some sauces and dressings can be high in salt, even if they are low fat. Choose low-salt varieties or make them yourself without any added salt.
- > Limit creamy style soups.

Polyunsaturated and monounsaturated fat

Some fat is important for good health. Use a variety of polyunsaturated and monounsaturated types to achieve a good balance.

Polyunsaturated fats include

- Polyunsaturated margarines (check the label for the word 'polyunsaturated').
- Sunflower, safflower, soybean, corn, cottonseed, grapeseed and sesame oils.
- The fat found in oily fish such as herring, mackerel, sardine, salmon and tuna.

Monounsaturated fats include

- Canola, olive or Sunola® margarines.
- Canola and olive oil.
- Avocado.

Seeds, nuts, nut spreads and peanut oil contain a combination of polyunsaturated and monounsaturated fat.

Ideas for enjoying healthy fats:

-
- > Stir-fry meat and vegetables in a little canola oil (or oil spray) with garlic or chilli.
-
- > Dress a salad or steamed vegetables with a little olive oil and lemon juice or vinegar.
-
- > Sprinkle sesame seeds on steamed vegetables.
-
- > Use linseed bread and spread with a little canola margarine.
-
- > Snack on a handful of unsalted nuts, or add some to a stir-fry or salad.
-
- > Spread avocado on sandwiches and toast, or add to a salad.
-
- > Eat more fish (at least twice a week) because it contains a special type of fat (omega 3) that is good for your heart.
-
- > Do more dry roasting, grilling, microwaving and stir-frying in a non-stick pan.
-
- > Avoid deep fried, battered and crumbed foods.
-

Carbohydrate

Carbohydrate foods are the best energy source for your body. When they are digested they break down to form glucose in the bloodstream. If you eat regular meals and spread your carbohydrate foods evenly throughout the day, you will help maintain your energy levels without causing large rises in your blood glucose levels.

If you take insulin or diabetes tablets, you may need to eat between-meal snacks. Discuss this with your Accredited Practising Dietitian (APD) or Credentialed Diabetes Educator (CDE).

All carbohydrate foods are digested to produce glucose. The amount of carbohydrate you eat will affect how high your blood glucose levels rise after a meal. Too large a serve can mean too large a rise.

food choices

Although all carbohydrate foods break down into glucose, they do so at different rates – some slow, some fast. The Glycemic Index or GI is a way of describing how a carbohydrate containing food affects blood glucose levels. The GI of foods will also affect your blood glucose response.

The best combination is to eat moderate amounts of carbohydrate and include high fibre foods that also have a low GI. Your dietitian (APD) can give you an idea of how much you need to eat.

The foods listed below are high in carbohydrate and are healthy choices. Those in bold have a lower GI:

- > Bread or bread rolls – especially wholegrain and wholemeal varieties such as **Burgen® Breads**, 9-grain Multigrain®, **PerforMAX®**.
- > High fibre breakfast cereals such as rolled oats, **All-Bran®**, **Guardian®** or untoasted muesli.
- > **Pasta**, rice (**Basmati**, **Moolgiri** or **Doongara**) and other grains such as **barley**, **bulgur** and couscous.
- > **Legumes – baked beans, kidney beans, chick peas, lentils, 3 bean mix.**
- > Fruit – all types such as **apples, oranges, peaches, bananas**, melons. Fruit is a good source of fibre; try to eat the whole fruit rather than drinking the juice. Include at least 2–3 serves of fruit a day.
- > Milk products or dairy alternatives – choose low fat varieties of **milk, soy drink** (calcium fortified), **custard** and **yoghurt**. Include 2–3 serves a day.
- > Vegetables that contain a significant amount of carbohydrate – potatoes, **orange sweet potato, yams, corn**. Other vegetables (such as salad vegetables, green vegetables, and orange vegetables) are generally low in carbohydrate and therefore have little effect on your blood glucose levels. Include at least five serves of vegetables each day.
- > You also need to consider a food's other nutritional qualities such as fat, added sugar and salt content. While some high fat foods and many sugary foods have a low GI, such as chocolate, ice-cream and toasted muesli, they are still not suitable for everyday eating.
- > Some occasional foods (such as dry or sweet biscuits, chocolate or chips) and sugary foods (such as jam, honey or sugar) are also carbohydrate foods. These should be eaten in small amounts.

Sugar

A healthy eating plan for diabetes can include some sugar. However, it is still important to consider the nutritional value of the foods you eat. In general, foods with added sugars should be consumed sparingly (manufacturers sometimes use fruit juice or other sources of sugar to avoid using table sugar). In particular, high energy foods such as sweets, lollies and standard soft drinks should not be consumed.

Some sugar may also be used in cooking and many recipes can be modified to use less than the amount stated or substituted with an alternative sweetener. Select recipes that are low in fat (particularly saturated fat) and contain some fibre.

Alternative sweeteners

While it is no longer necessary to always use alternative sweeteners instead of sugar, artificially sweetened products are suitable alternatives for foods and drinks that are high in added sugars, such as cordials and soft drinks.

Alternative sweeteners based on aspartame (951)*, sucralose (955)*, cyclamate (952)*, saccharin (954)* or acesulphame K (950)* are all suitable for people with diabetes. They don't provide kilojoules, won't affect blood glucose levels and are found in many low joule products. These have all been approved for use in Australia by Food Standards Australia New Zealand. However it is important to remember that many foods that use alternative sweeteners (such as soft drinks) are not everyday foods so should still be consumed in small amounts.

Protein

Most protein foods do not directly affect your blood glucose levels. They include lean meat, poultry without the skin, seafood, eggs (not fried), unsalted nuts and soy products such as tofu and legumes (dried beans and lentils). Legumes are also a carbohydrate food so will affect your blood glucose levels.

Protein foods do provide important nutrients for good health. However most Australians already eat enough protein and do not need to eat more.

Other foods, condiments and drinks

You can use these foods to add flavour and variety to your meals:

-
- > Herbs, spices, garlic, chilli, lemon juice, vinegar and other seasonings.
-
- > Products labelled 'low joule' eg: low joule/diet soft drinks, low joule jelly.
-
- > Water, soda water, plain mineral water, tea, coffee, herbal tea.
-

* This number may appear on the ingredient list in place of the name.

food choices

Alcohol

If you enjoy alcohol, it is generally acceptable to have one standard drink a day if you are a woman and two standard drinks a day if you are a man* and aim to have alcohol-free days each week. However, if you need to lose weight, you may need to limit your alcohol intake further. It's best to drink alcohol with a meal or some carbohydrate containing food.

One standard drink is equal to:

-
- > 100mL wine
 - > 285mL regular beer
 - > 30mL spirits
 - > 60mL fortified wine
 - > 425mL low-alcohol beer (less than 3% alcohol)
-

It is important to remember:

-
- > That all alcoholic drinks are high in kilojoules and can contribute to weight gain.
 - > That low alcohol or 'lite' beers contain less alcohol than regular beers so a standard drink size is larger.
 - > People with diabetes do not need to have diet or low carbohydrate beers. These beers may be lower in carbohydrate but they are not necessarily lower in alcohol.
 - > When mixing drinks use low joule/diet mixers such as diet cola, diet ginger ale, diet tonic water.
 - > That drinking a lot of alcohol can cause hypoglycaemia if you are taking insulin or certain diabetes tablets.
 - > To discuss alcohol with your doctor or dietitian and refer to the *Alcohol and Diabetes* information sheet.
-

Weight management

Being overweight, especially around your waistline, makes it more difficult to manage your diabetes and increases your risk of heart disease.

A small weight loss (5–10% of body weight) can make a big difference to your health but if you need to lose more weight and can, you should certainly do so. Measuring your waistline is a great way of checking your progress rather than weighing yourself regularly. In general, if you are of Caucasian origin, women should aim for a waist circumference less than 80 cm and men should aim for less than 94 cm. Appropriate measurements for other ethnic groups can be checked with your doctor.

* NHMRC, Dietary Guidelines for Australian Adults (2003).

If you are carrying excess weight around the middle, try to lose some of it by:

- Reducing your portion sizes and following a diet plan lower in kilojoules and total fat (particularly saturated fat). A dietitian (APD) can help you with specific advice on adjusting your food intake to help with weight loss.
- Doing regular physical activity such as walking, dancing, riding a bike or swimming.
- Seeking advice from your doctor, dietitian (APD), diabetes educator (CDE) or State or Territory Diabetes Organisation.

An example of a typical meal plan for one day

Choose foods you like and which satisfy you and remember to include carbohydrate foods in each meal or snack to help manage your blood glucose levels. Carbohydrate-containing foods are highlighted in italics in the menu below.

Breakfast – for example...

- 3/4 cup of high fibre *breakfast cereal* with *low fat milk* OR
- 2 slices of *bread* or *toast*, preferably *wholegrain*, *wholemeal* or *high fibre white* with thinly spread margarine, peanut butter, jam, Vegemite® or try with *baked beans*, grilled tomato, or sardines **PLUS**
- 1 piece of *fruit*.
- Tea, coffee or water.

Light meal – for example...

- 1 sandwich made with 2 slices of *bread*, or 1 *bread roll* or 4 dry *biscuits* – preferably *wholegrain* or *wholemeal* – with thinly spread margarine.
- Salad vegetables.
- A small serve of lean meat, skinless poultry, seafood, egg, fat reduced cheese or a more generous serve of legumes (such as *beans* or *lentils*).
- 1 piece of *fruit*.
- Water, tea or coffee.

Main meal – for example...

- 1 *bread roll* or 2 slices of *bread* (preferably *wholegrain* or *wholemeal*) OR 1 cup of cooked *pasta* or *rice* OR 2 medium *potatoes* or 1 cup *sweet potato* or *corn*.
- Other vegetables (include freely).
- A small serve of lean meat, skinless poultry, seafood, egg, fat reduced cheese or a more generous serve of legumes (such as *beans* or *lentils*).
- 1 piece of *fruit* OR small amount of low fat *yoghurt* or *custard*.
- Water, tea or coffee.

You can eat your main meal at lunch or dinner, whichever you prefer.

food choices

Between-meal snacks

People with diabetes on certain types of tablets or insulin may require one snack between each meal and for supper. However, most people aiming to control their body weight may not need a snack between every meal. To find out what is best for you, discuss this with your dietitian or diabetes educator. Good snack ideas include 1 piece of *fruit*, 1 slice of *wholegrain bread*, 1 slice of *fruit bread*, 2 high fibre *crispbreads*, 1 tub of low fat *yoghurt* or 1 cup of low fat *milk*.

Your State or Territory Diabetes Organisation recommends that everyone with diabetes visit a dietitian (APD) for personal advice.

For more information

The example menu plan on page 7 is a guide only. For more personalised information, an Accredited Practising Dietitian will help.

To find an APD in your area, contact:

- The Dietitians Association of Australia on 1800 812 942 or www.daa.asn.au
- Your State or Territory Diabetes Organisation on 1300 136 588 or go to their website as listed below.
- Dietitians are based in many local hospitals, diabetes centres and community health centres and are also listed in the telephone directory.

Remember – good food and regular activity will help to keep you healthy!



Supporting the education programs of
Diabetes Australia State and Territory Organisations

Would you like to join Australia's leading diabetes organisation?

- > Dietary services
- > Free magazines
- > Children's services
- > Educational literature
- > Product discounts
- > Support groups

For more information phone **1300 136 588** or visit your State/Territory Organisation's website:

ACT	www.diabetes-act.com.au	NSW	www.diabetesnsw.com.au
NT	www.healthylivingnt.org.au	QLD	www.diabetesqld.org.au
SA	www.diabetessa.com.au	TAS	www.diabetestas.com.au
VIC	www.diabetesvic.org.au	WA	www.diabeteswa.com.au

The design, content and production of this diabetes information sheet has been undertaken by the eight State and Territory member organisations of Diabetes Australia Ltd listed below, with the support of an unconditional grant from Alphapharm.

- > Diabetes Australia – NSW
- > Diabetes Australia – Queensland
- > Diabetes ACT
- > Diabetes SA
- > Diabetes Australia – Victoria
- > Diabetes Australia – Tasmania
- > Diabetes WA
- > Healthy Living NT

The original medical and educational content of this information sheet has been reviewed by the Health Care and Education Committee of Diabetes Australia Ltd. Photocopying this publication in its original form is permitted for educational purposes only. Reproduction in any other form by third parties is prohibited. For any matters relating to this information sheet, please contact National Publications at dapubs@tpg.com.au or phone 02 9527 1951.