

# Healthy Eating for Diabetes

Healthy eating is important for everyone, including young people with diabetes. The dietary guidelines for diabetes are the same as those recommended for everyone – so the whole family can eat the same healthy foods.

The Dietary Guidelines for Children and Adolescents recommend that young people:

- Enjoy a wide variety of nutritious foods
- Eat plenty of vegetables, legumes and fruits
- Eat plenty of cereals (including breads, rice, pasta and noodles), preferably wholegrain
- Include lean meat, fish, poultry and / or alternatives
- Include milk, yoghurt, cheese and / or alternatives - reduced fat varieties should be encouraged for older children and adolescents
- Choose water as a drink
- Limit saturated fat and moderate total fat intake
- Choose foods low in salt
- Consume only moderate amounts of sugar and foods/drinks containing added sugars

## Food & Diabetes

The right balance of foods from the different food groups is important for managing diabetes.

Food is made up of 3 main fuels:

- **Carbohydrate**
- **Protein**
- **Fat**

The proteins, fats and carbohydrates in food provide us with the fuel (energy) our body needs.

## Carbohydrate

Carbohydrates are one of the main sources of energy for the body. When we eat carbohydrates they are broken down into glucose in the blood stream which is then converted into energy for our body cells and muscles to use.

### *Foods high in carbohydrate include:*

- Breads and cereals – e.g. bread, breakfast cereals, rice, noodles, barley, rice porridge, tapioca



- Fruit – e.g. fresh, canned, dried, fruit juice



- Starchy vegetables – e.g. corn, potato, sweet potato



- Dairy products – milk, yoghurt, custard and soy drink



- Legumes – e.g., lentils, chickpeas, baked beans



- Snack foods – e.g. biscuits, crackers, muesli bars, fruit bars



- Sugars – e.g. sucrose, glucose & food/drinks with added sugars

**All carbohydrate foods breakdown to glucose in the blood stream** and provide an important source of energy. The right balance of carbohydrate foods is important for managing diabetes.

## Protein

Proteins are important for growth and development, repair of body tissue and can be used as a source of energy by the body. Protein does not affect blood glucose levels.

### *Foods high in protein include...*

- Meat, chicken, fish and seafood
- Eggs
- Legumes\* e.g. baked beans, lentils, chickpeas
- Milk\* or soy drink\*
- Cheese
- Nuts
- Meat substitutes e.g. tofu, tempeh

*\*These foods are high in protein and also contain carbohydrate.*



Protein foods can also be high in saturated fat so it is important to choose lower fat options such as lean meats and low fat dairy foods.

## Fat

Fats are an essential part of a healthy diet and are important for normal growth and development.

***There are different types of fats in food including –***

- Polyunsaturated
- Monounsaturated
- Saturated
- Trans fats

Polyunsaturated fats and monounsaturated fats are found in vegetable oils and margarines such as canola, peanut, sunflower and sesame, as well as nuts, seeds and fish. These fats are the healthiest choices.



Saturated fats are found in animal foods such as fatty meats, butter, full-fat dairy products as well as coconut milk, coconut cream, palm oil and many snack and takeaway foods. Trans fats are found in foods such as solid cooking fats, pastries, snack foods and takeaways. Saturated fats and trans fats can raise blood cholesterol levels and should be limited.



Although dietary fat won't directly affect blood glucose levels, a low saturated fat diet is recommended for long term good health and to reduce the risk of diabetes complications. All fats are high in kilojoules and too much of any type of fat can lead to weight gain. To reduce the amount of saturated fat in your child's diet, try the following suggestions:

- Use reduced fat milk from age 2 years onwards
- Choose low fat yoghurt, ice cream, custard, reduced fat cheese and light coconut milk
- Limit high fat packaged foods such as crisps, chocolates and biscuits
- Encourage healthy snacks based on fruit, breads, cereals, low fat dairy foods and vegetables
- Use small amounts of healthy poly or monounsaturated oils and limit deep frying
- Try to limit takeaway foods to less than once a week
- Encourage healthy school canteen choices
- Use lean cuts of meat, trim meat of any excess fat and remove skin from chicken
- Use low fat cooking methods such as grilling, non-stick frying, microwaving, BBQ or steaming
- Include 1-2 fish meals each week
- Use margarine (e.g. Canola, Sunflower) instead of butter

## Other foods

Foods such as green vegetables, salad vegetables, carrots, onion, eggplant, cauliflower, pumpkin and strawberries won't have any effect on blood glucose levels. These foods contain plenty of vitamins, minerals and fibre and are good for health. Try to encourage your child to eat plenty of vegetables.



## Carbohydrates and Diabetes

Carbohydrates directly affect blood glucose levels and need to be balanced with activity levels and insulin dose. Achieving this balance can help keep blood glucose levels mostly within the normal range.

To get this balance right, it's important to think about the amount, type and timing of carbohydrate foods eaten over the day.

### Carbohydrate Exchanges

The right **amount** of carbohydrate is important for providing kids with the energy they need from day to day as well as for proper growth and development.

Carbohydrate exchanges are used to measure the **amount** of carbohydrate in different foods. One exchange (1E) of a carbohydrate food contains approximately 15 grams of carbohydrate.

Exchanges don't refer to the weight of the food, for example, a piece of bread can weigh 40 grams but only contain 15 grams of carbohydrate.

### Some examples of one carbohydrate exchange are:

- 1 slice of bread
- 1 whole orange
- 1/3 cup cooked rice
- 1/3 cup cooked noodles

All of these foods contain approximately 15 grams of carbohydrate and could be "exchanged" for one another, giving a similar amount of carbohydrate and therefore a similar amount of glucose entering the blood stream. Your dietitian can give you a list of carbohydrate exchanges.

You may need to measure foods to count carbohydrate exchanges, especially if your child is newly diagnosed with diabetes or when trying new foods.

### *How much carbohydrate does my child need?*

About half of your child's daily energy intake should come from carbohydrate foods. A dietitian can help you work out how much carbohydrate your child needs. This will depend on things such as appetite, stage of growth and development, weight, height and activity levels. All kids with diabetes should see a diabetes dietitian for individualised advice.

## Choosing Healthy Carbohydrates

The healthiest carbohydrate choices are low in fat and added sugars, and high in fibre. These include high fibre breads and cereals, fruit, starchy vegetables, noodles, pasta and rice, low fat milk and yoghurt, and legumes like lentils and kidney beans.



### What about sugar?

Despite what many people think, a small amount of sugar can be included as part of a healthy eating plan. We know that sugar in nutritious foods such as high fibre breakfast cereals, low fat custard and yoghurt shouldn't upset blood glucose levels if counted as part of your child's carbohydrate exchanges. Use only a small amount of sugar in cooking.

Foods which have sugar as a main ingredient such as soft drinks, lollies and sweets should be avoided (except in the case of treating low blood glucose levels (hypos)).

Diet or low joule soft drinks and cordials can be included occasionally, but water is the best everyday drink.

### Meal Times

Regular meals are important for managing diabetes. Meals should include carbohydrate foods spread out evenly over the day. 'Exchanges' can help balance carbohydrate foods over the day and ensure that insulin dose is matched with the food your child eats.



Depending on their insulin plan, appetite and activity levels some kids with diabetes may also need snacks between meals to prevent hypoglycaemia (a hypo) or low blood glucose levels.

Meals and snacks should be planned around your child's usual routine, such as school or day care so that they are eating at the same time as other kids.

**For more information on healthy eating and diabetes, talk to your dietitian or contact Diabetes Australia NSW on 1300 136 588.**

### Need an interpreter?

A free telephone interpreter service is available for people who may have difficulty in understanding or speaking English. This service is available through the Translating and Interpreting Service (TIS) of the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA).

TIS have access to professional interpreters in almost 2000 languages and dialects and can respond immediately to most requests.

### Accessing an interpreter:



1. Simply dial 131 450 for the Telephone Interpreting Service.

2. Explain the purpose for the call e.g. wanting to talk to an educator/dietitian at Diabetes Australia.

3. The operator will connect you to an interpreter in the required language and to a Diabetes Australia health professional for a three-way conversation.

This free service has been set up by Diabetes Australia and will be promoted with assistance from the Australian Government Department of Health and Ageing.