

Carbohydrate counting: a Tongan quick guide

What are carbohydrate foods?

Carbohydrate foods, or carbs, are a source of fuel and nutrients for your body.

Carbs are:

- » **Sugars**, such as the natural sugar in fruit and milk or the added sugar in soft drinks and many packaged foods.
- » **Starches**, including grains such as wheat, rye, barley, oats, rice and other grains, foods made from these grains such as breads, pasta and breakfast cereals, starchy vegetables such as corn and potatoes; and dried beans, lentils, and peas.

Why is the amount of carbohydrate you eat important?

Once in the stomach, carbs get broken down into glucose, which raises your blood glucose levels. Therefore:

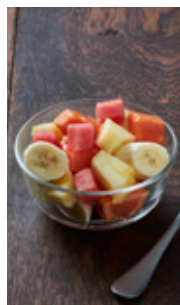
- » Eating or drinking large amounts at one time can lead to high blood glucose levels.
- » Eating too little, or skipping a meal can lead to low blood glucose levels, known as hypoglycaemia (a hypo). This can occur if you are on insulin or certain other diabetes medications.

How to count carbohydrates

Counting carbs is simply keeping track of the amount you eat in your meals, snacks, and drinks across the day.

An exchange, has around 15 grams of carbs.

1 exchange
=
15 grams of carbohydrate



How much should you eat?

This depends on your age, gender, weight and activity levels.

As a general guide:

	Carbohydrate grams (g) at main meals	Exchanges
Women	30g - 45g	2-3
Men	45g - 60g	3-4

Do you need to eat snacks?

Most people who need to take insulin or other glucose-lowering medications do not need snacks through the day or before bed to prevent a hypo. However, for some people a snack may be recommended. Please talk to your diabetes health professional about whether this applies to you.

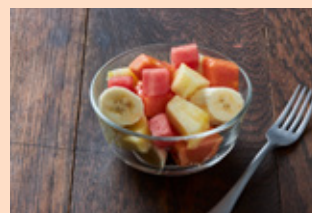
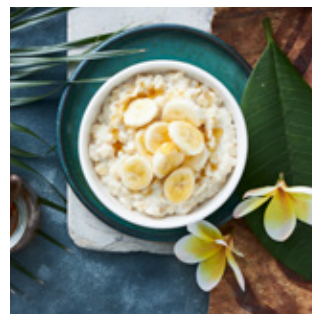
If you wish to include snacks in your meal plans, please talk to your dietitian about how to best do this.

For adults requiring a carb snack, a general guide is to aim for 1–2 carb exchanges per snack (15–30g of carbs).




Sample meal plans

Here are two examples of what carb counting looks like. Each meal has three (3) exchanges and each snack has one (1). The carb foods are in **bold**.

Meal	Food	Carbohydrate Exchanges
Breakfast	Porridge made with $\frac{1}{3}$ cup raw rolled oats , 1 cup low-fat milk , and 1 small banana	3
	OR 2 weetbix with $\frac{2}{3}$ cup low-fat milk , and 1 small banana	
	OR 2 boiled eggs with 2 slices of multigrain bread with spinach and tomato. Coffee or tea made with a cup of low-fat milk (250ml) (with less than 2 teaspoons sugar or honey)	
Snack	$\frac{3}{4}$ cup fruit salad	1
Lunch	Ika mata made with a hand-sized piece of raw fish (115g) (chopped), (use a little light coconut cream) and add 1 cup of vegetables (tomato, capsicum, cucumber and spring onion), $1\frac{1}{2}$ cups diced, boiled taro and $\frac{1}{2}$ cup green beans	3
	OR for something quick and easy, try canned fish (in spring water) and salad sandwich on 2 slices of multigrain bread and a coffee or tea made with 250ml low-fat milk (with less than 2 teaspoons sugar or honey)	











Sample meal plans – continued

Meal	Food	Carbohydrate Exchanges
Snack	<p>½ cup canned peaches (in juice) and 1/4 cup low-fat custard with a small handful of unsalted nuts (30g)</p> 	1
Evening meal	<p>Chop suey made with 1 cup cooked vermicelli noodles, palm-sized lean beef (100g) (chopped), 2 cups of vegetables (peas, carrot, capsicum, onion, garlic, salad)</p> <p>OR</p> <p>Roast dinner made with palm-sized piece of chicken (without skin) (100g), 1 cup sweet potato, 1 small potato and 2 cups of vegetables (pumpkin, onion, carrot, snake or green beans, pele, spinach)</p> 	3
Snack	<p>1 glass of milk (250ml)</p> <p>OR</p> <p>½ small tub of low-fat yoghurt (125g) with ½ cup papaya</p> 	1

Carbohydrate exchanges

Here are exchanges of foods that have around **15 grams of carbohydrate**. Use as a general guide only.






Bread and bread products

			
1 regular slice bread or fruit bread (35g)	1/2 bread roll (35g)	1/2 English muffin (40g)	1/2 wholegrain wrap (35g)
			
2-4 multigrain plain crispbreads, medium sized (25g)	1 crumpet – round shape (40g)	1/3 Turkish bread roll (40g)	1 small roti/chapati (about 15cm in diameter) (40g)
<ul style="list-style-type: none"> • 1/2 pita 'pocket' bread (35g) • 1/4 bagel (30g) • 1/4 large thin wholemeal Lebanese bread (26cm diameter) • 1/4 large pita bread (30g) • 1/2 regular size thin Lebanese bread (20cm diameter) 			

Breakfast cereals








				
1/3 cup raw rolled oats (30g)	1/4 cup natural muesli (30g)	1 1/2 wheat biscuit type cereal (25g)	1/2 cup flake type cereal with dried fruit (25g)	1/2 cup porridge (oats cooked with water) (130g)

Rice/pasta/grains/flour

				
1/2 cup cooked pasta (50g) or quinoa (95g)	1/3 cup cooked noodles (rice/egg/soba) (55g)	1/4 cup cooked rice* (50g)	2 tablespoons flour or corn flour (20g)	1/3 cup cooked vermicelli (55g)
<ul style="list-style-type: none"> • 1/4 cup semolina cooked in water (60g) • 1/2 roll sushi general (50g) • 1 1/2 tablespoons raw polenta (25g) 				



* One exchange of cooked rice can range from 1/4 to 1/3 cup depending on the type of rice and the way it is cooked and packed.

Starchy vegetables











			
1 small potato (100g) or 1/2 cup mashed	1/2 cup corn kernels (90g) or 1 medium cob (170g)	1/2 cup taro, diced and boiled (65g)	3/4 cup yam diced and boiled (120g)
			
1/3 cup cassava, boiled (50g)	1/2 medium green banana, boiled (75g)	1/2 cup orange sweet potato or kumara, raw (100g)	

- 1 1/2 tablespoons tapioca (Sago) (20g)

Legumes







	
1/2 cup cooked or canned bean mix (95g), chickpeas (85g), kidney beans (95g), cannellini beans (130g), or baked beans (140g)	3/4 cup cooked or canned lentils (140g)

Fruit

				
1 small or 1/2 large banana (130g)	1/2 small mango (100g)	1 1/2 cups diced rockmelon or watermelon or honeydew (250g)	1/2 medium pomegranate (120g)	2 medium mandarins (150g)
				
2 kiwifruits (170g)	1 cup diced pineapple (190g) or papaya (250g)	1 medium orange (160g) apple (150g) or pear (150g)	1/2 cup grapes (100g)	10 lychees (100g)

- 3 large apricots (170g)
- 4 guavas (360g)
- 1/2 cup sliced jackfruit (90g)
- 1 large peach or nectarine (200g)
- 3 medium star fruits (155g) or fresh figs (150g)
- 1/4 medium custard apple (100g)
- 1 medium apple or pear (150g), or orange (160g)
- 1 cup peaches, canned in juice, drained
- 1/4 cup durian (60g)
- 1 cup or 20 cherries (150g)
- 4 pitted dates (20g)
- 6 pieces dried apple (21g)
- 8 dried apricot halves (30g)
- 6 prunes (50g)
- 1 1/2 tablespoons or 20 sultanas (25g)
- 1 large grapefruit (300g)

Milk/milk products and alternatives






					
1 cup low- or full-fat milk or soy milk or buttermilk (250ml)	250g low- or full-fat natural yoghurt	100g low- or full-fat fruit yoghurt	1/2 cup low-fat custard	1/3 cup powdered skim milk (35g)	1/2 cup evaporated skim milk (135g)

Other/ miscellaneous food



3 cups air-popped corn (25g)

Occasional foods

				
1 tablespoon jam (20g)	3 teaspoons honey (20g)	3 teaspoons sugar (15g)	1 cup plain potato chips (25g)	4 squares milk chocolate (25g)

- 3 tablespoons or 1/4 cup tomato sauce (65g)
- 1/2 cup koko samoa (125ml)
- 1/2 keke panikeke (25g)
- 1/4 cup coconut tapioca porridge (vaisalo) (65g)
- 1/4 cup cocoa rice (60g)

- 1 small piece of cake, unfilled, without icing (30g)
- 2 tablespoons or 7 teaspoons chocolate drinking powder (25g)
- 2 plain sweet biscuits/fruit slice biscuits (20g)
- 6 plain crispbreads, small squares/rounds (20g)

- 10 rice crackers (20g)
- 1 1/2 thick or 3 thin rice or corn cakes (20g)
- 2 breakfast biscuits (20g)
- 1 medium scoop of plain vanilla ice-cream (70g)

Find a dietitian

If you have any questions, ask your dietitian. To find one, go to dietitiansaustralia.org.au or contact Dietitians Australia. Call **1800 812 942** or email info@dietitiansaustralia.org.au

Carbohydrate counting is a tool to better manage your diabetes.

The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.