

Advanced insulin management

Counting carbohydrates

A nutrition resource for living well with diabetes

When you have diabetes, keeping your blood glucose within a healthy range will help you feel your best today and in the future. Carbohydrate counting, or 'carb counting', is a meal-planning tool (not a diet) that helps you understand how your food choices affect your blood glucose level.

The best part about carbohydrate counting is that it is flexible, allowing you to eat a variety of foods - you plan your carbohydrate intake based on what your pre-meal sugar is and your intake or insulin dose can be adjusted.

Carbohydrate counting is most useful for people who take multiple daily injections of insulin and want more flexibility and variety in their food choices, or those who use an insulin pump.



What foods contain carbohydrates?

With carbohydrate counting you must take a bolus of insulin for the carbohydrates you eat. To determine how much insulin to take for any given meal or snack, you need to count the carbohydrates in that meal.

Foods containing carbohydrates include:

- > some vegetables and salad items
- > bread and cereal products, including crackers, croissants, tacos, flat breads, crumpets, muffins, porridge, pasta, spaghetti and rice
- > legumes and lentils, such as soup peas, baked beans, kidney beans, chickpeas and hommus
- > fruits (canned, dried or fresh) and fruit juices
- > milk and milk products, such as custard, yoghurt, ice-cream, powdered milks, and evaporated and condensed milks
- > sugars and foods containing sugar, such as packaged desserts, frozen yoghurt and sorbets
- > hidden carbohydrates, such as crumbed or battered meat or fish, pastry, some tofu products, frozen meals, sausages, cheese with fruit, milo, canned soups, sandwich spreads, sauces and dressings, cookies, chocolates and lollies, crisps, nuts and seeds, alcohol, regular softdrinks, regular cordials, coffee, tea and dips
- > takeaway foods, such as fish and chips, sushi, deep fried foods, fast foods.

There are also many other types of foods that contain carbohydrates, so don't forget to check the foods that you eat, and make a note of the foods you eat regularly.



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Label reading

The good news is that all of the information you need is usually contained within the food packaging. If you eat fresh food, such as fruit and vegetables, that do not come pre-packaged, you can usually find the carbohydrate information via a simple online search or in books.

Example

High bran Weet-bix

	Per serve (2 biscuits, 40g)	Per 100g
Energy	584 kJ	1460 kJ
Protein	4.6g	11.5g
Total fat	2.0g	5.0g
Saturated fat	1.3g	3.3g
Carbohydrate	22.4g	55.9g
Sugars	3.6g	9.1g
Dietary fibre	7.3g	18.3g
Sodium	162mg	232mg

Calculating the carbohydrate content of any recipe involves five simple steps.

1. Find the serving size.
2. Find the Total carbohydrate in one serving. (Sugars are included in this number, so you do not need to count them separately.)
3. Compare the serving size listed to your portion.
4. Calculate the amount of carbohydrate in your portion.
5. Multiply or divide the number of serves you have to get the amount of carbohydrates in grams.

Using carbohydrate factors and weighing food in grams

Most food packets and books will now tell you how much carbohydrate is in 100g of product.

Example

If there is 55.9g of carbohydrate per 100g of product, weigh the amount of product you have and multiply by 0.6 (0.559) to get the amount of carbohydrate in the portion size you eat.

Where do I get information on carbohydrate counting?

Some essential tools when counting carbohydrates include measuring cups and spoons, food scales, food package labels and carbohydrate counting books.

Good sources of information are:

- > *The Fat, Fibre and Carbohydrate Counter – The essential guide to healthy eating* (Murdoch Books)
- > *The traffic light guide to food: carbohydrate counter, 2009*, Diabetes Education Centre, Royal North Shore Hospital, St Leonards, NSW
- > Allan Borushek's *Pocket Calorie, Fat and Carbohydrate Counter*.
- > *The Traffic Light Guide to food, 2005 edition*, Diabetes Education Centre, Royal North Shore Hospital, NSW
- > *The New Glucose Revolution – people with diabetes* (pocket guide)
- > The Calorie King website: www.calorieking.com.au

For more information

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Royal Adelaide Hospital, North Terrace, Adelaide SA 5000
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The Queen Elizabeth Hospital, Diabetes Centre, Woodville Rd, Woodville South SA 5011
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