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What is carbohydrate?

The foods that you eat contain a mixture of nutrients including carbohydrate, fat, protein, vitamins, minerals, fibre and water. Foods that contain carbohydrate have the greatest effect on blood glucose levels.

Carbohydrates are found in many foods such as:

- Bread, cereal and grains
- Fruits and some vegetables (including potatoes, sweet potatoes, legumes, corn)
- Dairy products (including yoghurt, milk and milk alternatives such as Soy milk)
- Sugary foods (including cakes and sweets)
- Many packaged and prepared foods

What is carbohydrate counting?

Carbohydrate counting is a method of calculating the amount of carbohydrate in the meals and snacks that you consume

Carbohydrate counting is commonly done in two ways:

- 1. Carbohydrate counting in grams:** This method is particularly useful particularly useful:
 - For people with type 1 diabetes
 - For people with type 2 diabetes using multiple daily injections (MDI) also known as basal/bolus therapy)
 - For people using insulin pump therapy
 - For people using a bolus advisor blood glucose meter
- 2. Carbohydrate counting in exchanges:** 15 grams of carbohydrates are equal to one exchange. This is often useful:
 - For women with gestational diabetes (diabetes diagnosed during pregnancy)
 - For people who want to consume carbohydrates to match their medication action profile ie people who are prescribed insulin or on some diabetes medications (including sulphonureas)
 - For people who may benefit from spreading their carbohydrate foods evenly across the day
 - To assist in the prevention of hypoglycaemia

What are the benefits of carbohydrate counting?

Carbohydrate counting enables:

- Flexibility with food choices and meal planning
- Accurate insulin dosing for food
- Improved blood glucose control, especially after meals

Please note: carbohydrate counting is a skill required for safe use of continuous subcutaneous insulin pumps and bolus advisor blood glucose meters

- Insulin pumps rely on you accurately identifying and/or calculating the amount of carbohydrates in a meal/snack to deliver the correct amount of insulin when you eat.
- Bolus advisor meters rely on you accurately identifying and/or calculating the amount carbohydrate in the meal/snack to suggest an accurate dose of insulin for the food you are about to eat.

What do I need to carbohydrate count?

1. Motivation: Learning to count carbohydrates requires time and patience and involves:

- Keeping accurate and thorough records and testing your blood glucose more frequently
- Weighing and measuring foods – not guessing!
- Patience, perseverance and support – hang in there and once you have mastered it, the rewards will be liberating. We are here to help you.

2. Equipment:

- Kitchen scales and measuring cups/spoons
- Notebook and calculator
- A carbohydrate food content reference (eg reference books, smart phone/ tablet applications, personalised lists, reference sheets)

How do I learn more about carbohydrate counting?

Carbohydrate counting education may be completed at RMH by attending a carbohydrate counting group. This group is conducted by our diabetes dietitian. Individual carbohydrate counting appointments can also be arranged in some circumstances.

Carbohydrate counting education can also be completed with a private dietitian. We can provide you with a list of private dietitians upon request.

On average, people generally require 2-3 sessions with a dietitian and plenty of practice at home to learn how to accurately and consistently count carbohydrates.

What Dietitians will teach you:

- The role of carbohydrates in diabetes
- Identifying carbohydrates
- Reading from labels
- Calculating from recipes
- Calculating carbohydrate from a given weight of food
- Eating out
- Ways of creating an individual record of foods

Please note - for people commencing insulin pump therapy or use of a bolus advisor blood glucose meter:

You are unable to proceed to the next stage of your pump/ meter training until we receive a letter of competency from the dietitian regarding your carbohydrate counting skill.

If you have previously completed the DAFNE (Dose Adjustment For Normal Eating) course we still require written confirmation of your carbohydrate counting competence from a dietitian. This is because the pump calculator requires you enter the carbohydrate in grams, as opposed to using Carbohydrate Portion (CPs) as taught in DAFNE.

Recommended Carbohydrate Counting Resources:

1. Books:

- a. Fat, Fibre and Carbohydrate Counter (Murdoch Books) \$12.95
- b. The Traffic Light Guide to Food –Carbohydrate Counter \$15.95

These books can be purchased from:

**Diabetes Australia Victoria,
570 Elizabeth St
Melbourne, 3000.**

- c. Allan Borushek's Pocket calorie, Fat & Carbohydrate Counter – from newsagencies

2. Online resources

www.calorieking.com.au

3. Smart phone/tablet Apps

There are many smart phone applications available to assist with counting carbohydrates. You need to be cautious in ensuring you download/purchase only Australian based applications. Many food nutrient profiles vary from country to country, and the names of common foods can also vary.

- **Calorie King (free)** Australian data base of more than 22,000 foods (iPhone and Android)
- **Traffic Light Guide to Food (cost associated)**
- **Easy Diet Diary (free)** Lists in exchanges and grams (iPhone)

Contact

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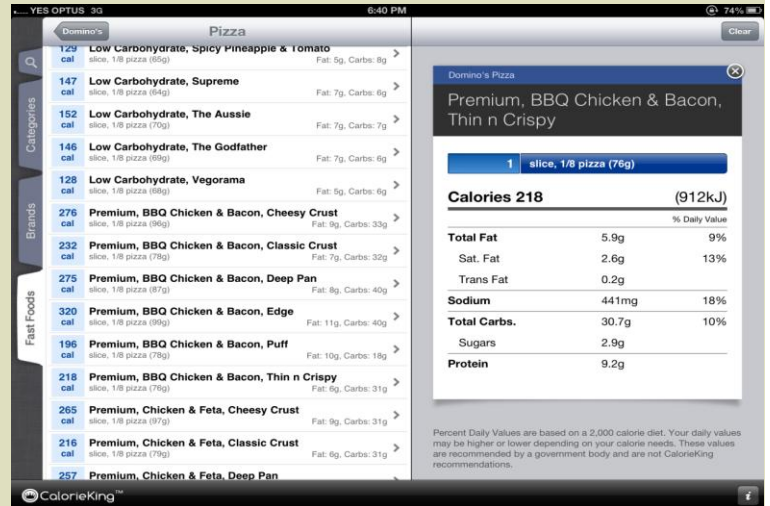
Practitioner / Patient notes

App

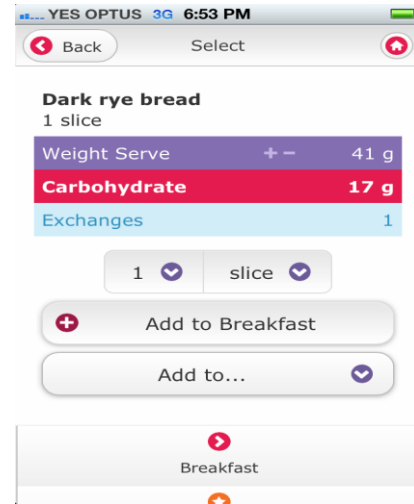
Calorie King (free)

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Example

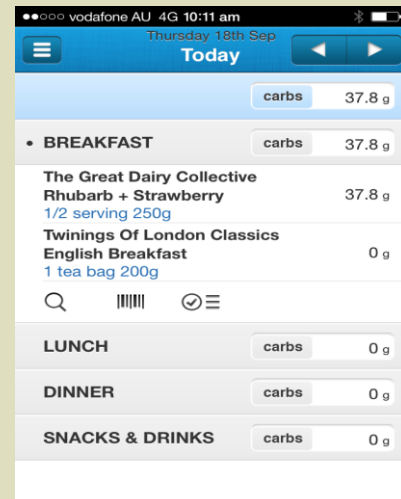


Traffic Light Guide to Food (cost associated)



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