



ST VINCENT'S  
HEALTH AUSTRALIA

# Carbohydrate Counting Workshop

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Diabetes Service

UNDER THE STEWARDSHIP OF MARY AIKENHEAD MINISTRIES

ADEA NSW ACT State Conference 2019

# Workshop outline

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1:00 – 1:30pm – Overview of carbohydrate counting in diabetes management

1:30 – 2:45pm – Practical learning stations (~25 minutes each):

- Eating out
- Real food measurement
- Recipe calculation

2:45 – 3:00pm – Re-adjourn as a group, questions and summary

# Carbohydrate 101

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- Human populations have thrived on diets with widely varying carbohydrate *quantities*.
- Carbohydrate *quality* has a major influence on risk for numerous chronic diseases.
- Carbohydrate is the primary macronutrient that upon eating, breaks down into glucose. This glucose is then absorbed into the bloodstream.
- Glucose transport from bloodstream to cells requires insulin.
- To establish the correct dose of insulin required, you need to first work out how much carbohydrate is in your food.
- Carbohydrate counting refers to the process of calculating the amount of carbohydrate in the meals and snacks that you consume.



# FOOD

Alcohol

7 cal / gram

Free Foods

~ 0 cal / gram

Carbohydrate

4 cal / gram

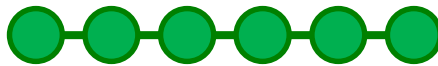
Protein

4 cal / gram

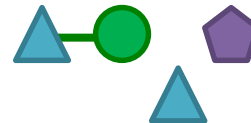
Fat

9 cal / gram

Starch

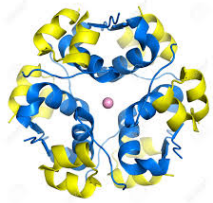


Sugar



Saturated

Unsaturated



INSULIN

to move it into cells



GLUCOSE

in the blood



# CARBOHYDRATE

Carbohydrate foods include:

## Starches:

Grains: wheat (pasta, noodles, couscous), rice, quinoa, buckwheat, barley, oats

Starchy vegetables: potato, sweet potato, corn, (peas, pumpkin, carrot, beetroot)

Legumes and lentils

Flour: bread, pastry, biscuits, cakes etc.

Cereal products

## Sugars:

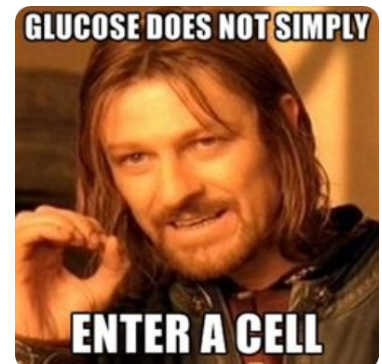
Fruit and fruit juice

Milk, yoghurt, dairy desserts

All forms of “sugar”: white, brown, honey, syrups, jam etc.

Added sugars: soft drink, lollies, chocolate etc.

End point of all of these  
foods: GLUCOSE



# How much carbohydrate is my food?

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1. Does this food contain carbohydrate?

Yes

2. What amount of food am I going to consume?

2 slices of bread

3. What amount of carbohydrate is in a known amount of this food?

1 slice of bread = 17 g carb

4. How does this compare to my portion?

Double it  
= 34 g carb



# How much carbohydrate is my food?

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1. Does this food contain carbohydrate?

Yes

2. What amount of food am I going to consume?

1 bowl = 1 ¼ cups = 196 g

3. What amount of carbohydrate is in a known amount of this food?

100 g = 36 g carb

4. How does this compare to my portion?

**C ÷ R x M**

- **C** Carb amount in reference quantity
- **R** Divided by reference quantity
- **M** Multiplied by quantity of my serve

36 ÷ 100 x 196  
= 70 g carb



# How much carbohydrate is my food?

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1. Does this food contain carbohydrate?

Nutrition knowledge

2. What amount of food am I going to consume?

Measurement: weight / spoonfuls / cups

3. What amount of carbohydrate is in a known amount of this food?

Carbohydrate reference guide

4. How does this compare to my portion?

Maths skills / calculator



# Carbohydrate Counting Reference

## Apps:



Control My Weight  
(Calorie King)  
iOS

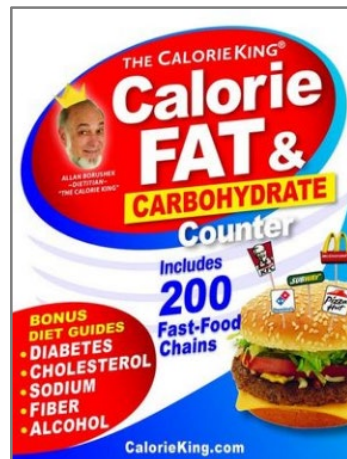
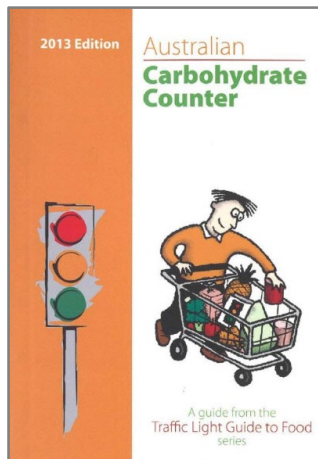


Australian Carb Counter  
(Traffic Light Guide)  
iOS  
Android



Carbs & Cals  
iOS  
Android

## Books:



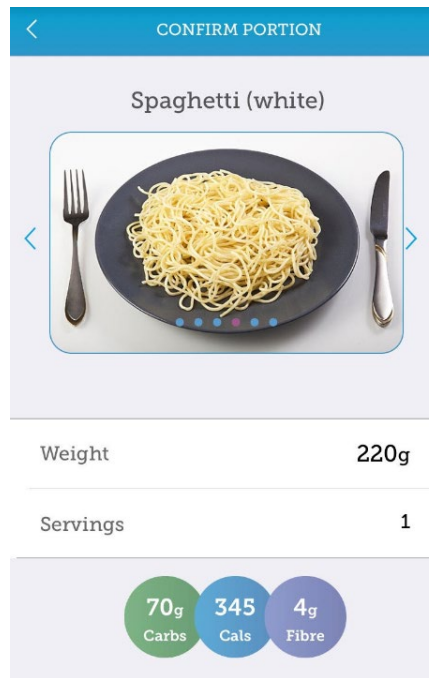
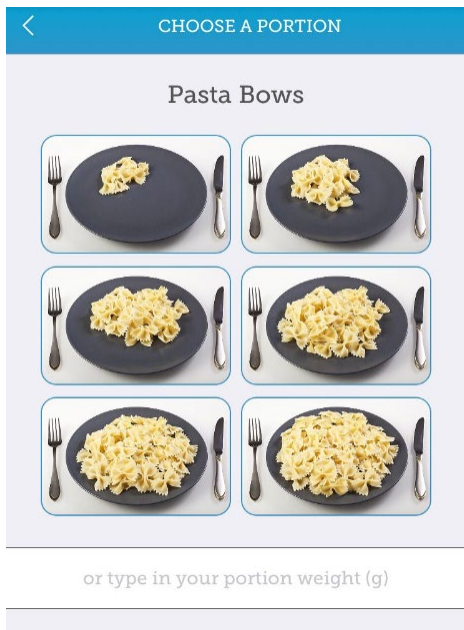
## Website: [www.calorieking.com.au](http://www.calorieking.com.au)



## Food labels:



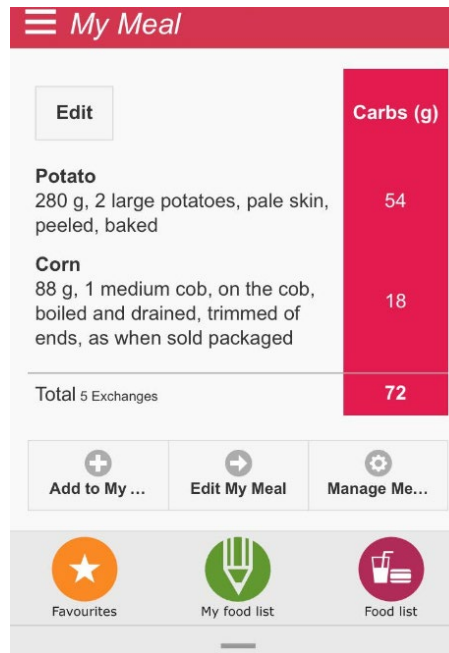
Carbs & Cals



Control My Weight



Australian Carb Counter



# Why carb count?

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- Carbohydrate counting enables:
  - Flexibility with food choices and timing of meals
  - Accurate insulin dosing for food
  - Optimised blood glucose levels, especially after meals
- Would this be easy? Every meal, every day?



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# Practical Learning Stations

UNDER THE STEWARDSHIP OF MARY AIKENHEAD MINISTRIES

Questions?

Comments?

Insights?