

## Fuel for the body and the brain

### Why do I need carbohydrate?

Carbohydrates are circulated as glucose in the blood which is the most easily accessible and preferred fuel source for the body and brain to function, especially during exercise for muscle contraction and the central nervous system. Carbohydrates have a limited storage as glycogen in the muscles and liver; this can be tapped into when immediate supplies of blood glucose are exhausted; when both are low, performance can decline.

An **inadequate** amount of carbohydrate in the diet can cause **fatigue, lethargy and decreased performance** – low levels can make you lose focus and concentration in training when it's needed the most to keep pushing yourself.

**Carbohydrate is the BEST fuel source for maximum energy**

### Nutritious Carbohydrate Sources

All carbohydrates will break down to circulate in the body as glucose. The type of carbohydrate eaten can influence how quickly this glucose is available in the system. When choosing carbohydrate foods try to select nutritious, nutrient rich carbohydrates for maximum health, vitality and energy.

Less nutritious carbohydrates don't offer too much more than glucose and are absorbed quite quickly. These foods may have their place at times around activity, however as part of an everyday diet they should be eaten in smaller quantities.

<b>MORE Nutritious Carbohydrates</b>	<b>LESS Nutritious Carbohydrates</b>
Bread and Bread rolls – all types	Soft drink
Pasta / Rice / Noodles	Cordial
Fruit – fresh/dried/ tinned	Lollies
Cereal / some muesli bars	Sugar
Low fat milk and Low fat yoghurt	Jams
Starchy vegetables like potato, sweet potato, corn, dried peas /beans	Sweet sauces and syrups
Grainy crackers and crisp bread	Biscuits

### How much carbohydrate do I need?

The total amount of carbohydrate you require depends on your body weight, activity level; training and body composition goals. Below demonstrates how amounts required can change depending on activity, they are approximate daily amounts to calculate how much carbohydrate to aim for in consideration of both activity levels and body weight.

<b>Activity level*</b>	<b>Activity description</b>	<b>gram carb/kg body weight/day</b>
Light	< 1hr/day	3 – 4
Light – moderate	1 hr/day	4 – 5
Moderate	1-2 hr/day	5 – 6
Moderate – Heavy	2-4 hr/day	6.5 – 7
Heavy	4-5 hr/day	7.5 - 8.5
Carb loading/extreme	> 5 hr/day	8.5 – 10

\*Activity levels refer to the intensity as well as the duration of the activity. The time refers to the amount of time you are physically active during training, not the amount of time training. Both are important to consider to modify carbohydrate intake during periods of high and low intensity training.