

Fuel your training for performance and recovery



The field of nutrition can often be very confusing with lots of conflicting advice. We all know the basic dos and don'ts like, eat plenty of fruit and vegetables and don't eat eight bars of chocolate for breakfast. However, as an athlete, how can your nutrition choices look after your general well-being and also boost your performance in events and training?

The first step is to ensure you eat a 'healthy balanced diet'. To get the best out of your body you need to eat the right foods in the right quantities and, most importantly, do not restrict or deprive your body of key food groups.

Nutrition Basics

Macronutrients	
Carbohydrates	Fuel the body—maintains blood glucose levels during exercise and replaces muscle glycogen
Proteins	Important for muscle repair and recovery—highly active people will need to slightly increase their protein intake
Fats	Essential fats are important for general health and well-being. Fats are needed for the absorption of vitamins A D E K
Micronutrients	
Vitamins Minerals	Although needed in smaller amounts, vitamins and minerals are vital for structure and function. They are also necessary to 'unlock' the energy contained in the macronutrients

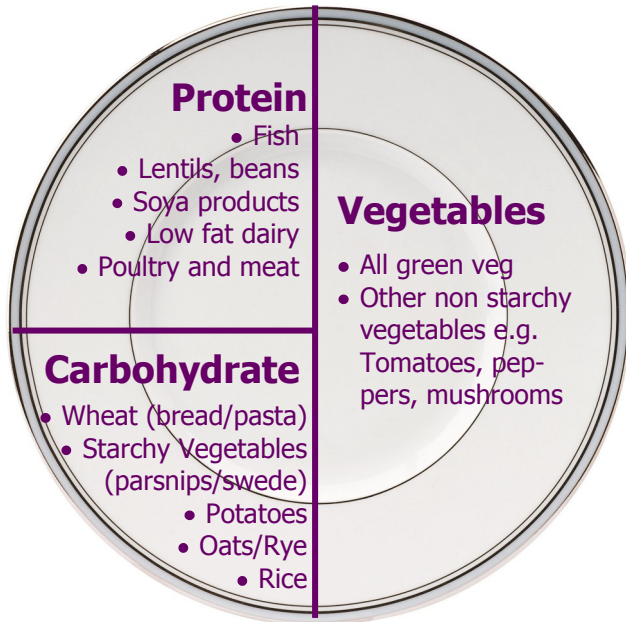
Macronutrients

Low GL carbohydrates release their sugars more slowly, therefore making it easier to balance your blood sugar levels. High GL carbohydrates quickly raise blood sugar levels and, as an athlete, you need to know when to use high GL carbohydrates to get the best performance and recovery during events and training.

Carbohydrates			
Starches, Pulses, Grains	Non Starchy Veg	Fruit	Sugar
<ul style="list-style-type: none"> E.g. bread, pasta, rice, potatoes, parsnips Choose wholegrain unrefined options e.g. brown rice, whole grain pasta and bread 	<ul style="list-style-type: none"> E.g. green veg, salad, onions, peppers, mushrooms, tomatoes 3 servings a day Choose as wider variety of colours as possible 	<ul style="list-style-type: none"> Choose lower GL fruits such as berries 2 servings a day Contain vitamins and minerals Contain antioxidants Be aware some fruits are very high in sugar e.g. banana, mango, dried fruits 	<ul style="list-style-type: none"> E.g. biscuits, cakes, confectionery, soft drinks Avoid excessive sugar, higher than 15g per 100g (FSA) Contains no vitamins or minerals Adversely affects insulin response

Fats	Protein	Salt
<ul style="list-style-type: none"> Choose mono-unsaturated and polyunsaturated fatty acids, such as fish, nuts, seeds, and vegetable oils Low fat dairy options Avoid saturated fats (animal fats) and trans fats 	<ul style="list-style-type: none"> Choose lean meat and poultry Choose fish, nuts, seeds, eggs, beans and pulses as alternatives to meat and poultry If you are vegetarian, combine plant based proteins to ensure you receive the full spectrum of essential amino acids 	<ul style="list-style-type: none"> Adults should have no more than 6g of salt a day Avoid adding sugar or salt to food (or use low sodium salt) Avoid salty or sugary snacks

A Balanced Plate



Snacks

- Eat a small mid morning and mid afternoon snack to keep your blood sugar levels stable throughout the day

Snack Ideas

A piece of fruit and 5 brazil nuts	Celery with peanut butter	Boiled egg with oatcakes
Yoghurt and strawberries	Cottage cheese with apple	Watermelon, feta cheese and mint

- Mix protein with carbohydrate to slow down the release of sugars - add a spoonful of seeds

Fuel your training

Once you have cracked the basics, you'll need to think about how you are going to specifically fuel your training. This can be quite subjective and will depend on you as a person, so play around with different foods and timings to find out what suits you best.

Pre Training Meal	Pre Training Snack	During Training	Post Training Snack	Post Training Meal
<p>2-4 hour before Low GL carbohydrates to maximise blood glucose levels.</p> <ul style="list-style-type: none"> • Porridge/muesli • Wholegrain pasta with tomato sauce • Jacket potato with beans • Beans/egg on toast • Chicken sandwich 	<p>30 mins before Higher sugar carbohydrate. Familiar foods which you know are well tolerated by your body</p> <ul style="list-style-type: none"> • Banana • Cereal bar • Fruit yoghurt • Smoothie • Sports gel 	<p>If your training session or race is more than 1 hour High GL Carbohydrates to top up depleting glycogen levels. Practise in training prior to a race.</p> <ul style="list-style-type: none"> • Gels* • Jelly Babies • Sports drink 	<p>Within 20 mins You need to start replenishing glycogen stores as soon as you can. Use high GL carbohydrate with protein.</p> <ul style="list-style-type: none"> • Protein/carb shake • Energy bar • Smoothie • Yoghurt and fruit • Nuts and dried fruit 	<p>Within 2 hours Mixed meal providing carbohydrates, fat and protein to replenish stores and aid recovery</p> <ul style="list-style-type: none"> • Wholegrain pasta with tomato sauce • Grilled fish and veg • Lasagne with salad • Homemade chicken and veg curry with brown rice

* If taking gels during a race, take one about every half hour from the start of the race. Caffeine gels should be used in the later part of the race. Gels do vary considerably so do try different ones to find the brand that suits you.

Hydration

Keep yourself generally hydrated all the time by drinking small amounts regularly throughout the day and hydrate particularly well in the days leading up to an event. During the event drink to thirst and always rehydrate after a training session.

Isotonic drinks contain similar concentrations of salt and sugar as the human body, therefore are easily absorbed by the body, replenishing fluids and the sodium, potassium, calcium and magnesium that you lose through sweating. This will also aid your recovery. They do not however, deliver enough energy for more sustained exercise.

Hyponatremia

Hyponatremia is also called 'water intoxication'. This can occur as a result of drinking too much plain water leading to a low concentration of sodium in your blood. When doing sustained exercise, rehydrate using drinks that contain electrolytes and increase your salt intake.