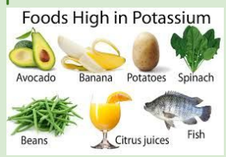
Micronutrients and Hydration

In addition to macronutrients there are other vital parts to a balanced diet.

Vitamins

Vitamin	Function and Benefit for Sport	Source
vitamin A:	Maintains normal eyesight so the benefit to a sportsman is an increased ability to use hand-eye coordination and positional awareness when performing.	liver, mackerel and milk products
vitamin B1:	Converts food into energy to produce energy for exercise so the benefit to a sportsman is an increased ability to convert food into energy for exercise by metabolising the macronutrients such as fats and carbohydrates for energy throughout exercise.	rice, bran, pork, beef, peas, beans, soya beans
vitamin C:	maintains an effective immune system to prevent illness so the benefit to a sportsman is an increased ability to be able to train and compete on a regular basis.	most fresh fruit and vegetables
vitamin D:	to keep bones, teeth and muscles healthy the benefit to a sportsman is an increased bone strength for higher intensity work and reduced injury risk.	oily fish, red meat, liver, egg yolks, fortified foods

Minerals

Mineral	Function and Benefit for Sport	Source
Potassium	Regulates fluid levels to ensure the performer is hydrated during exercise. When added to drinks helps maintain fluid and electrolyte balance levels during exercise, which helps the performer to regulate their body temperature	bananas, yoghurt, sunflower seeds, potatoes 
Iron	Increases the body's oxygen-carrying capacity to enhance aerobic performance, by promoting the growth of red blood cells which are vital for the delivery of oxygen to working muscles. This will allow the performer to be able to work more efficiently over long periods of time when work is a moderate or low intensity.	liver, lean meat, eggs, kidney beans, spinach
Calcium	Provides increased bone strength, which can reduce the risk of injury in contact activities	milk and dairy products, whole grains, green vegetables.

Hydration

Fluid intake is a further vital part of the diet. Wate, in particular is

When playing sport it takes on an even higher importance to maintain body functions and chemical reactions.

The daily recommended (RDI) amount of fluid is 2 litres.

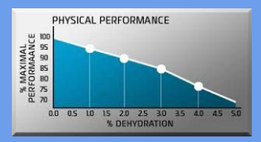
When you play sport your body creates heat so this amount increases to replace fluid loss through sweating.

If you do not drink enough fluid you become DEHYDRATED **this is " a harmful reduction in the amount of fluid in the body".**

During sport participation you need to increase fluid uptake, **an additional one litre of fluid per hour of exercise** participation, in response to hot conditions to avoid dehydration. This is why you will see distance runners pick up drinks as they run their race.

Negatives of poor hydration:

Poor fluid choices lead to dehydration, which is when the blood plasma volume reduces (gets thicker) and reduces the body's ability to sweat.



Poor concentration - This could include making a bad pass or poor tackle because you are not as alert and have poor concentration.

Benefits of hydration for sport and activity:

Maintaining a normal body temperature (37 degrees) through sweating so that participants do not overheat when training or competing

Lubrication for the joints so they can move more freely during sport and activity

Blood plasma is thinner so it can work effectively and transport oxygen and nutrients to the muscles during sport and activity.