

# Hydration

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The value of water as our most important nutrient should not be underestimated. During exercise our muscles produce heat, too much body heat reduces our exercise capacity and as core body temperature increases so too does our blood flow to the skin as the body tries to cool itself by sweating. As body temperature rises oxygen demand increases due to blood distribution therefore reducing exercise intensity and capacity.

During exercise, especially in the heat of summer, sweat output can often exceed water intake, leading to dehydration. Dehydration can decrease athletic performance, increase the risk of injury, decrease aerobic and anaerobic capacities and cause undue fatigue. Therefore it is essential to maintain adequate fluid levels.

As a player, coach or manager it is important to have a fluid replacement plan in place, particularly through the pre-season months of January and February, this will optimize a player's level of hydration before, during and after competition and training. Rehydration is a major part of the recovery process of both trainings and games.

**Pre-hydration (super hydration):** Consume 500-600ml of water two hours before the game.

**Hydration:** Consume 250-500ml during warm-up and consume 150-300ml at a time during breaks.

**Re-hydration:** Consume 1-2 litres after the game.

Water is sufficient to replace the fluids lost during exercise, although water alone cannot replace the minerals lost during exercise and sweating. When we sweat we release electrolytes (potassium, sodium, calcium), therefore it is often (not always) advisable to consume a suitable electrolyte replacement before strenuous exercise. It is advised to only consume sports drinks when completing 60 minutes or more of exercise. There are several suitable sports drinks on the market. A sports drink will contain simple sugars, electrolytes and water. The carbohydrates contained in sports drinks are designed to aid in performance but do not play a direct role in hydration. The additional electrolytes along with the water content are the determining factors in hydration. Players should always avoid caffeinated and energy drinks before, during and after exercise.

The well prepared athlete will have a hydration plan that will ensure they include plenty of water and electrolytes for the intensity and duration of the exercise undertaken.

Measuring body weight both before and after exercise can provide an indication of sufficient hydration. Weight loss indicates a need for increased hydration and weight gain is a sign of over consumption of fluid.