

DEHYDRATION

To drink or not to drink?



Dehydration is a major risk associated with prolonged, strenuous, outdoor activities which can include professional and recreational water sports. The risk is compounded in hot weather, and if not managed appropriately can have major consequences.

What is Dehydration?

Dehydration is simply loss of body fluid, primarily through sweating. Our bodies contain, on average, 60% water, 40% of which is stored in muscle. As little as a 2% decrease in body fluid can result in dehydration which will have a detrimental effect on sport performance.

In an exercise situation profuse sweating and rapid expiration can cause dehydration.

Excessive sweating does not only cause fluid loss but also a decrease in the level of electrolytes, mainly sodium and potassium. Sodium is essential for fluid retention and potassium is responsible for nerve and muscle function. If the levels of either or both become sub-optimal the body is unable to function efficiently and problems can occur, ranging from muscle cramping to, confusion and in extreme cases, heart and kidney failure and even death.

Signs of Dehydration:

- Dry mouth
- Thirst
- Headache



- Lethargy
- Dizziness
- Confusion
- Fainting
- Reduced urine output
- Concentrated (dark colour) urine

Management of Dehydration:

The foremost treatment for dehydration is prevention.

On average our bodies require 2 - 2½ litres of fluid per day to maintain adequate hydration levels.

Sweating, increased activity and heat stress will cause fluid loss therefore fluid intake should equal or preferably exceed the amount lost.

An adequate intake of water will be sufficient to prevent dehydration in normal circumstances, however in hot weather, or during periods of increased physical activity where there is a danger of extreme dehydration occurring, water alone will be inappropriate. The body requires sodium in order to retain fluid so therefore a higher intake of fluids with the correct balance of electrolytes and carbohydrates, in the form of sugar, will be required.

It should be noted that fluids which are high in sugar are not ideal as these could potentially worsen the degree of dehydration, therefore fruit juices and some Sports and Energy drinks should be avoided if possible.

Alcohol and caffeine containing drinks are not ideal as these will only increase the level of dehydration because of their diuretic effect.

Thirst is one of the last manifestations of dehydration and as exercise blunts the thirst mechanism it is therefore essential to be conscious of the need to rehydrate during periods of physical activity.

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