

Importance of fluids



Drinking adequate fluid before, during and after exercise is important to minimize dehydration and promote optimal performance.

Dehydration has many negative outcomes for athletes' health and performance. The consequences of dehydration can be fatal if not treated. **The first symptom of dehydration is usually thirst**; however thirst is a very poor indicator of dehydration. By the time you begin to experience thirst sensations you are usually at least **2% dehydrated**.

As dehydration progresses you may begin to feel nauseas, fatigued, and experience a lack concentration all of which are detrimental to sports performance. Fluid is a very important competition strategy, however there are many factors to consider when choosing the optimal fluids to maximize performance as well as prevent dehydration.

To prevent dehydration, athletes need to ensure they are adequately hydrated before, during and after training or competition. As thirst is a poor indicator of fluid needs, drinking opportunities should be maximized and fluids made readily available at training and competition. Athletes also need to ensure they match their sweat losses. A good way to determine the amount individual athlete sweats is to compare their body weights pre and post-training, for each 1Kg of weight lost; replace it with 1.5 litres of fluid.

General guidelines for fluid intake during sport are 500ml during the 30-60mins prior to exercise 200ml every 15 minutes during exercise 500-1000ml in the first 30 minutes following exercise

The most suitable choice of fluid replacement for athletes is dependent on:

- intensity and duration of exercise,
- fluid and energy requirements of the athlete.

Water is a suitable choice for most recreational athletes. As well as athletes who are restricting their caloric intake and for low-moderate intensity exercise lasting < 60minutes.

Sports drinks have a role in enhancing hydration, delaying fatigue and refuelling glycogen stores.

Sports drinks are formulated at the optimal concentration so after consumption they are quickly absorbed into the blood stream therefore improving performance by sparing muscle glycogen.

Consuming adequate fluids is often a challenge for athletes. Studies have demonstrated that fluid consumption in athletes is maximized if the fluids are flavoured, non-carbonated and served cool. Cordial, juice and soft drinks have a higher carbohydrate and lower sodium content than sports drinks; this slows gastric emptying and therefore delays the refuelling process. They can also cause gastro-intestinal upset during exercise because of the increased carbohydrate concentration as well as carbonation. Hence they are not a suitable replacement for sports drinks.

By drinking regularly during exercise athletes will benefit by preventing declines in concentration and skill level; promote energy preservation and therefore enabling longer and more intense exercise resulting in improved performance. Fluid replacement is an essential training and competition strategy that all athletes should take very seriously.

For more individualized information consult on of the Wakefield Sports Clinic's sports dietitian.



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