Research Insights

Insights from articles.

what athletes or sport practicing people experience related to hydration.

Insights Overview

Insights into hydration and athletes

Athletes might not accurately perceive their level of thirst, especially during exercise. This can lead to voluntary dehydration where athletes do not consume enough fluids to match their losses. "During exercise, athletes may not accurately perceive their level of thirst". Additionally, "thirst is not a reliable indicator of hydration status". "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active".

A combination of first-morning urine color or urine specific gravity, thirst sensation, and body mass provides the best estimate of hydration status in an athlete. "For the best estimate of hydration status in an athlete, 3 simultaneous measures are recommended: first morning urine color (or USG), thirst sensation, and body mass" . "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active".

Sodium intake before exercise is beneficial. Consuming sodium before exercise can help "expand vascular fluid volumes". "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active". It can also be helpful during activity as it "may help to delay decreases in blood sodium". "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active"

Hypohydration can reduce heat tolerance and negatively impact cardiovascular function, increasing the risk of heat exhaustion and heat stroke. "Additionally, hypohydration reduces heat tolerance and the time to exhaustion during exercise; the latter also occurs at lower core temperatures.29 Furthermore, hypohydration is an etiologic factor in the onset of heat exhaustion and exertional heat stroke due to impairments in thermoregulation and cardiovascular compromise.65". "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active"

Replacing fluids lost during exercise is key for recovery and overall well-being. "Rapidly replacing fluids after exercise restores euhydration, improves recovery, reduces hypohydration symptoms, and decreases postexercise fatigue". "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active".

Symptoms of dehydration and exercise-associated hyponatremia (EAH) can overlap, making it difficult to differentiate the conditions. "A potential difficulty in recognizing hydration abnormalities is that the signs and symptoms of hypohydration may overlap those of EAH (Table 1)". "National Athletic Trainers' Association Position Statement: Fluid Replacement for the Physically Active".

The ideal amount of water intake varies from person to person. While there is no determined amount of water that people should consume daily, "The Institute of Medicine has declared an estimated ideal volume of water that people should consumed daily". "The Effects of Hydration on Athletic Performance". This estimation suggests "Male adults above the age of 18 should consume about 4 litres. Females above the age of 18 should drink about 3 litres of water". "The Effects of Hydration on Athletic Performance".

Exercise performance is impaired when an individual is dehydrated by as little as 2% of body weight. "Exercise performance is impaired when an individual is dehydrated by as little as 2% of body weight." "Dehydration and its effects on performance"

Drinking fluids will help to prevent a decrease in physical performance. "Restoring fluids maintains normal muscle function, helps prevent a decrease in physical performance and reduces the risk of heat stress (1)." "The Effects of Hydration on Athletic Performance"