

Key Insights on Hydration for Athletes

1

Hydration Maintains Optimal Body Temperature

“Sweating is the body’s primary way of maintaining optimal body temperature. Consuming liquids replenishes the fluids lost during exercise and helps prevent a decrease in physical performance and reduces the risk of heat stress.”

— "The Effects of Hydration on Athletic Performance"

2

2% Body Mass Loss Causes Performance Decline

“A loss of sweat equal to 2% of body weight causes a noticeable decrease of physical and mental performance. Losses of 5% or more of body weight during physical activities may decrease the capacity for work by roughly 30%.”

— "The Effects of Hydration on Athletic Performance"

3

Dehydration Impairs Aerobic Capacity

“Even in cool laboratory conditions, maximal aerobic power decreases by about 5% when persons experience fluid losses equivalent to 3% of body mass or more.”

— "Dehydration and its effects on performance"

4

Urine Color as a Diagnostic Tool for Hydration

“A urine color of 5 or greater identified body mass loss $\geq 2\%$ with 88.9% sensitivity and 84.8% specificity. Under the conditions of acute dehydration, urine color assessment can be a valid, practical, inexpensive tool for assessing hydration status.”

— "Accuracy of Urine Color to Detect Equal to or Greater Than 2% Body Mass Loss in Men"

5

Hydration Supports Cardiovascular Function

“Maintaining hydration status with minimal variation (+1% to -1%) allows the body to optimally thermoregulate and maintain cardiovascular function.”

— "Fluid Replacement for the Physically Active"