

Hydration for Athletes

C O A C H E S T O O L K I T

Important points

- An athlete needs to be properly hydrated if they expect their body to perform at the highest level.
- After exercise, the goal is to replenish any fluid deficit and electrolyte loss from sweating.
- Dehydration can impair physical and mental performance during exercise and pose serious health risks.

Importance of Water

- As the internal temperature in the body rises during exercise, blood flow to the skin increases which transfers heat away from the body's inner core to the skin's outer surface.
- Water that contains internal heat generated from activity is brought to the skin's exterior surface and released through "sweat."
- With sweat, there are critical components of sweat required by the body to keep performing well that are lost: water, and electrolytes such as sodium chloride (salt).

Replacing what is lost

- Maintain hydration by consuming no more than 8 oz. every 15 to 20 minutes during exercise.
- Keep in mind that it's better to consume smaller amounts of fluid more frequently than to drink large amounts less often.
- After exercise, the goal is to replenish any fluid deficit and electrolyte loss from sweating. Current recommendations from the American College of Sports Medicine suggest drinking 23 fl. oz. for every pound of weight lost during exercise.
- Consume the fluid gradually between the time you finish exercise and 2 to 4 hours before the next workout.

Options for rehydration

- Water is still the most popular sports drink.
- Research in performance nutrition and exercise physiology has shown that when electrolytes are added to a sports drink, rehydration improves significantly.
- Further research proves that when a sports drink contains a combination of sodium and carbohydrate there is further improvement in rehydration.
- In other words, sodium and carbohydrates work together to activate an additional transport system to allow more water to be absorbed into the body.
 - **Water:** It contains just that...water.
 - For low-to-moderate intensity activities in mild conditions
 - Less than an hour in length
 - **Water and electrolyte solutions:** Beverages that contain only water, electrolytes, and no or low calories.

- Go much further than water-only to effectively replenish what is lost in sweat
- Electrolytes are key to facilitating effective hydration
- Examples: no-cal Propel Zero, and the latest low-cal offerings from Gatorade (G2-Low Cal) or GU Brew
- If you exercise in hot conditions, these are a good start

- **Water, electrolyte, and carbohydrate solutions:** typically contain carbohydrate in the form of sugars, they generally taste better to encourage continued hydration.
 - Your workout or competition is prolonged, in hot conditions, or continuous
 - Most effective solution to rehydrate and maintain performance
 - Examples: Gatorade or Accelerade

How much to drink

- The "Rule of 2%":
 - Working athletes can lose 1 to 4 lbs of body weight through sweat each hour.
 - If the loss exceeds 2% of beginning body weight, it impairs performance.
 - If you weigh 200 lbs at the start of exercise and apply the 2% rule, your "hydration zone" is between 200 and 196 lbs.
 - $200 \text{ lbs} \times 0.02 = 4 \text{ lbs}$
 - $200 \text{ lbs} - 4 \text{ lbs} = 196 \text{ lbs}$
 - If your weight is less than 196 after exercise, this is evidence you've exceeded 2% body weight loss during exercise.
 - To remedy this, you'll need to increase your fluid consumption during next workout to stay within your zone.
 - Continually exercising below your zone will compromise your ability to physically perform your best, mentally make good decisions, and think clearly when it counts.



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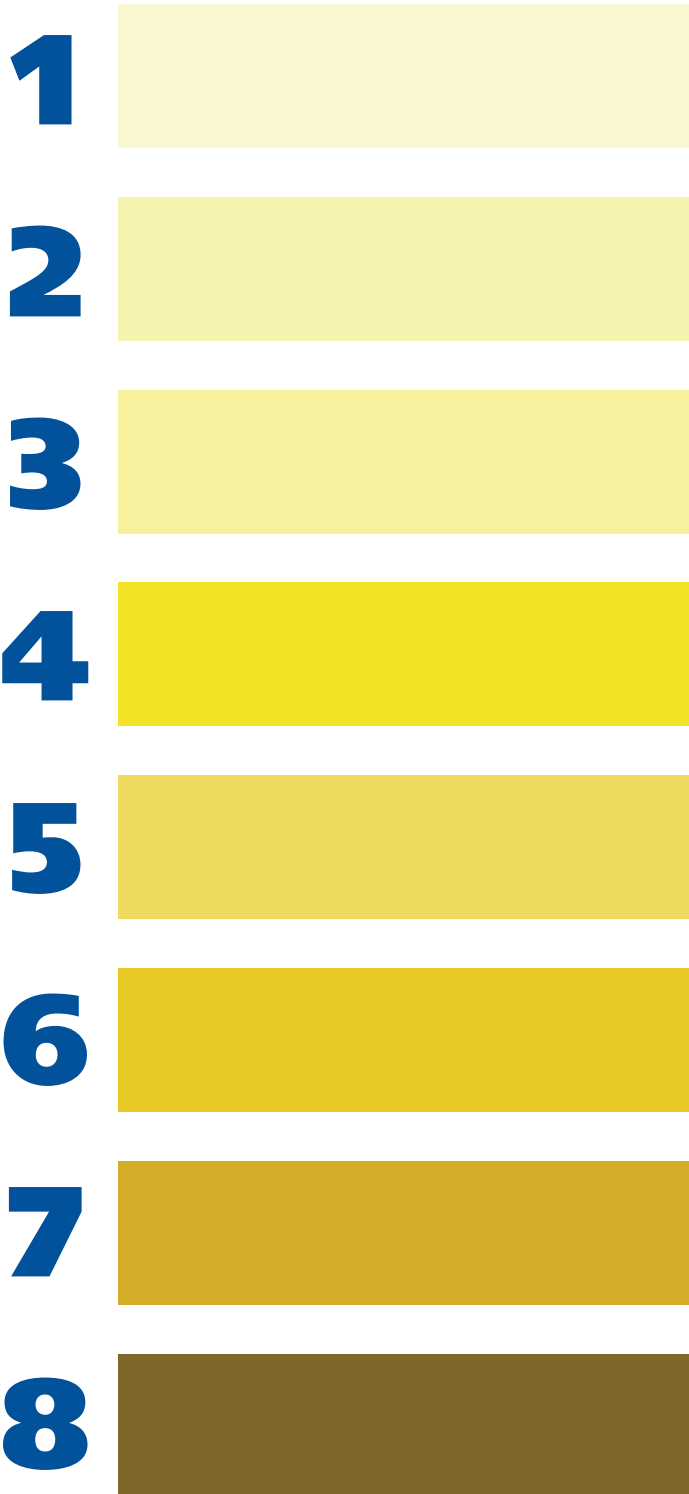
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Hydration Chart



The Urine Color Chart shown here will assess your hydration status (level of dehydration) in extreme environments. To use this chart, match the color of your urine sample to a color on the chart. If your urine sample matches #1, #2 or #3 on the chart you are well hydrated. If your urine color is #7 or darker you are dehydrated and should consume fluids.