

# RATIONAL HEALTH

## HYDRATION

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### A guideline to adequate hydration

#### Overview

- Hydration is more than just drinking plain water. Electrolytes are minerals critical to proper functioning of the nervous system and muscle performance. Electrolytes are lost in urine and sweat. Sodium and potassium are the main minerals that need replenishment especially in hot weather and when exercising. Small amounts of calcium and magnesium are also lost in sweat.
- Sodium losses are influenced by sweat rate, sodium concentration of sweat, exercise duration, exercise intensity and how hot the environment is. Some people are heavy sweaters or can have a high concentration of sodium in their sweat. Dehydration as measured by a reduction of 2% or more of bodyweight, will lead to significant reduction in exercise and mental performance.
- The natural thirst mechanism ensures that most people, most of the time will drink sufficient water to fuel their bodies. More attention is required to ensure adequate hydration when we exercise, especially in hot weather.
- Many people tend to under-hydrate during exercise and compensate by drinking large amounts of liquid after completion of exercise. In many cases, this happens later in the afternoon and early evening. The result is getting up to urinate more than two times during sleep.
- Drinking plain water is sufficient for days when the weather is cooler, and exercise is low in intensity. Hydrating with electrolytes is recommended to replace lost minerals and prevent hyponatremia.
- Sodium and potassium increase the absorption of water and help to maintain fluid balance.

#### Signs of dehydration

- Headache
- Thirst
- Dry mouth, lips and tongue
- Very dark morning urine
- Light-headedness, particularly when standing up
- Increased heart rate and low blood pressure
- Confusion, lack of concentration
- Reduced performance
- Muscle cramps



## Tips for adequate hydration

1. On waking, drink a glass of water with a pinch of salt
2. Drink to thirst for short duration exercise and in cooler conditions
3. Drinking plain water will provide sufficient hydration on no-exercise days
4. Make an effort to drink more water in the first half of the day.
5. If night-time urination is a problem, stop drinking liquid 3-4 hours before bed.
  - ½ cup of electrolytes 15 minutes before bed
6. Before exercise drink ½ -1 cup of water with 2 pinches of salt.
7. Hydration during exercise:
  - Bodyweight in kilograms x 2 = mL of water every 15 minutes
  - For example: 80kg x 2 = 160mL / 15min
8. Endurance events require targeted and individual hydration and energy plans. Seek professional guidance
9. All liquids count towards hydration: plain water, electrolytes, milk, juice, coffee and tea
10. A good electrolyte has a 5:1 ratio of sodium to potassium
  - For example: 1000mg sodium: 200mg potassium
  - Add a pinch of table salt to increase the sodium content

## Electrolyte Products

1. Home-made electrolyte mix:
  - ¼ tsp Lite Salt (source of potassium or use 1/8-1/4 tsp potassium citrate)
  - ¾ tsp (table) salt
  - 600-1000mL water
  - Flavour: Berocca or lemon cordial concentrate
2. Precision Hydration PH1000 and PH1500
  - <https://www.precisionhydration.com/au/en/products/>
3. LMNT
  - <https://drinklmnt.com/>
4. Voost Sport Fast Hydration

At Rational Health I strive to recommend good quality products. Sometimes this may require a specific practitioner only brand. While these are my recommendations, you are of course free to source your own supplements. If this is the case, please be aware that the expected outcome may differ. We will of course work with you to make sure convenience and cost suit your individual situation.

