KEY TIPS ON HYDRATION HYDRATION AND PHYSICAL ACTIVITY



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During prolonged physical activity, body water losses are primarily caused by sweat, although urine and respiratory fluid losses also have an important contribution¹.



Physical work performance is usually decreased when dehydration exceeds about 1-2% of body weight²:

- Prolonged exercise in the heat with dehydration corresponding to a loss of only 1% of body weight increases body temperature, which is a consequence of both reduced sweating and reduced skin blood flow induced by dehydration².
- A body water loss equivalent to more than about 2% of body mass induced by exercise in the heat has been shown to impair performance in a wide variety of tests of both physical and mental performance³.

REPLENISHING LIQUIDS

In general, it is necessary to drink during exercise only when sweat losses are high enough to affect performance or when exercise has begun in a dehydrated state. During exercise, drinking should occur regularly, but the frequency of drinking and the amount consumed will depend on many factors, including:

- intensity and duration of exercise
- weather conditions
- physical characteristics of the individual: body weight and sweating characteristics.

Fluids consumed during exercise can play a number of roles, including making one feel more comfortable, replacing a body fluid deficit, and providing a means to consume other ingredients.



WHEN IT IS HELPFUL TO DRINK DURING EXERCISE

- It is seldom necessary to drink during **exercise that lasts less than about 40 minutes** or when intensity is low, provided that the hydration status was optimal at the start. Plain water or any non-alcoholic beverage is perfectly adequate in these situations if something is needed.
- When the exercise lasts longer than about 30-40 minutes, sports drinks may be better than water². One key benefit is that they can reduce the sensation of effort, making exercise seem easier. Therefore, the individual will be more likely to enjoy the exercise program and more likely to stick with it.

In order to ensure an appropriate amount of water, it is important to take into account that of the total water consumed, about:



However, this may vary greatly depending on the diet that an individual chooses^{4,5}

- 1. Casa DJ, Clarkson PM, Roberts WO. American College of Sports Medicine Roundtable on Hydration and Physical Activity: Consensus Statements Current Sports Medicine Reports 2005, 4:115–127.
- 2. Fuji N, Honda Y, Hayashi K, Kondo N, Nishiyasu T. Effect of hypohydration on hypertermic hyperpnea and cutaneous vasodilation during exercise in men. J Appl Physiol 2008;105(5):1509-18.
- 3. Cheuvront SN, Carter R, Sawka M. Fluid balance and endurance exercise performance. Curr Sports Med Rep 2003;2:202-8.
- 4. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA); Scientific Opinion on Dietary reference values for water. EFSA Journal 2010; 8(3):1459. Available online: www.efsa.europa.eu/en/efsajournal/pub/1459.htm.

5. Manz F, Johner SA, Wentz A, Boeing H, Remer T. Water balance throughout the adult lifespan in a German population. Br J Nutr 2011;1-9 [Epub ahead of print].