



Today's discussion is from the
First Aid / Health Category.

HYDRATION

Dehydration is the result of the body trying to regulate its temperature naturally through sweating. Studies conducted on wildland firefighters indicate that during fire suppression activities firefighters need to drink a minimum of 1 quart of fluid each hour of work.

- Maintaining body fluids is essential for sweating. You must hydrate before, during, and after work.
- Before work you should take extra fluids to prepare for the heat. Drink 1 or 2 cups of water, juice, or a sport drink before work.
- While working drink at least 1 quart of fluid per hour. Drink as much as you can during the lunch break. Water is your greatest need during work in the heat.
- Hyponatremia (abnormally low concentration of sodium in the blood) as a result of excessive water intake a potentially life-threatening complication. Hyponatremia can be prevented when rehydration is enhanced by fluids containing sodium and potassium, or when foods with these electrolytes are consumed along with the fluid.
- After work it is important to continue drinking to replace fluid losses. Thirst always underestimates fluid needs, so you should drink more than you think you need.
- Unacclimatized workers lose more salt in the heat so they need to pay particular attention to salt replacement. Don't overdo salt intake; too much salt impairs temperature regulation. Excessive salt can cause stomach distress, fatigue, and other problems.
- You can assess your hydration by observing the volume, color, and concentration of your urine. Low volumes of dark, concentrated urine, or painful urination indicate a serious need for rehydration. Other signs of dehydration include a rapid heart rate, weakness, excessive fatigue, and dizziness.
- Rapid loss of several pounds of body weight is a certain sign of dehydration. Rehydrate before returning to work; continuing to work in a dehydrated state can lead to serious consequences, including heat stroke, muscle breakdown, and kidney failure.

References:

-[Interagency Standards for Fire and Fire Aviation Operations](#)

-[Fitness and Work Capacity--Second Edition](#)

- [Wildland Firefighter Health and Safety: Recommendations of the April 1999 Conference, Death from Hyponatremia as a Result of Acute Water Intoxication in an Army Basic Trainee, T. Garigan and D. Ristedt](#)

Have an idea? Have feedback? Share it.

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