Health Tips: Hydrating For the Heat

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Attention to the following principles will help individuals avoid heat stroke and heat exhaustion.

"Prehydrate"

The process of **prehydration** involves starting to drink enough fluids, and eating a balanced meal, several hours before participating in an activity in excessive heat.

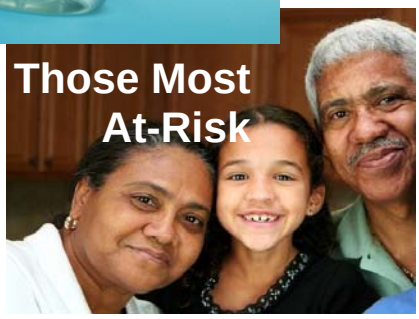
Individuals must replace fluid lost through sweating to prevent dehydration while participating in any outside activity during excessive heat.

How Much Water You Need

There is not a "one size fits all" amount of fluid a person should consume when exposed to prolonged excessive heat. The goal of fluid replacement is to prevent excessive dehydration (loss of greater than 2% of body weight from water) and to maintain a normal body weight.

On average, **a healthy individual participating in increased physical activity and or exercise in excessive heat and humidity should consume one-half to one liter (approximately 16 ounces to 32 ounces) of a conventional sports drink each hour** to provide enough carbohydrates to sustain energy and enough fluid replacement to prevent dehydration. **Check your weight before and after completing work or an exercise activity in excessive heat and/or humidity to replace fluid losses.** For each one pound of weight lost due to sweating in excessive heat, a healthy person should consume between 450ml to 675ml of fluid (1.5 liter per kilogram of body weight) to replace their fluid losses to return to a normal state of hydration. **Sports beverages should contain the following electrolytes: 20-30 meq/L sodium, 2-5 meq/L potassium and 5-8% carbohydrates[1].**

Limit alcohol consumption, as it can act as a diuretic (increase urination), causing increased fluid loss. This may increase the potential for a person to both become dehydrated and increase their risk for experiencing a heat-related illness.



Prepubescent children and adults over the age of 65 are both at an increased risk of experiencing a heat-related illness. Prepubescent children have a lower sweating rate than adults and adults over the age of 65 years old, are less likely to drink when they are becoming dehydrated. Both groups are therefore more susceptible to becoming dehydrated. This decreased ability to cool the body off by sweating in prepubescent children, and a decreased ability know when its time to drink to replace fluid losses in adults over the age of 65, place both groups at risk of heat related illnesses.

Web Links to More Information on This Topic

Local Weather Update: http://www.weather.com/weather/today/Washington+DC+USDC0001
Maryland Watches, Warnings and Advisories: http://www.weather.gov/alerts-beta/md.php?x=1
Heat Stress in the Elderly: http://emergency.cdc.gov/disasters/extremeheat/elderlyheat.asp
Occupational Heat Stress: Extreme Heat Prevention Guide: http://emergency.cdc.gov/disasters/extremeheat/heat_guide.asp
Heat Wave Safety Checklist: http://www.redcross.org/www-files/Documents/pdf/Preparedness/checklists/HeatWave.pdf
Excessive Heat Events Guidebook: http://epa.gov/heatisland/about/pdf/EHEguide_final.pdf

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[1] The American College of Sports Medicine.