

DON'T BECOME A HEAT INJURY CASUALTY!

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RECOGNIZE SIGNS AND SYMPTOMS OF HEAT STRESS:

Heat stress may be encountered wherever heat is a factor. By definition, heat stress is the combination of air temperature, thermal radiation, humidity, airflow and workload, which may adversely affect our body's ability to regulate temperature. Problems arise when the body is not able to dissipate extra heat generated internally. The most common types of heat related disorders include heat rash, heat cramps, heat exhaustion and heat stroke. The first two disorders may cause deterioration of mental alertness and physical performance. Heat exhaustion and heat stroke, being the more serious of heat disorders, may incapacitate or result in a person's death. By the time you start experiencing symptoms, you are already dehydrated. **DON'T WAIT UNTIL YOU ARE THIRSTY!**

HEAT RASH - generally occurs under more mild conditions, such as when hiking on a warm afternoon. Your skin may have a splotchy red rash and you may feel fatigued. If you experience either of these symptoms, immediately seek a shaded area and drink plenty of water.

HEAT CRAMPS - are painful and uncontrollable contractions of the voluntary muscles such as your legs, arms or abdominal area. Cramps may occur during or following heavy work accompanied by profuse sweating. Replenishment of liquids and salts lost through sweating is extremely important to alleviate this condition.

HEAT EXHAUSTION - is a common heat-related disorder also caused by loss of body fluids and salts. Symptoms include profuse sweating, rapid pulse, dizziness and severe headache. In worse case situations, the victim may go into shock and lose consciousness. Prompt liquid and salt replenishment is essential for recovery.

HEAT STROKE - is a condition requiring immediate emergency action since the body's ability to regulate heat through sweating has failed. This condition, if untreated, may raise the body temperature to 108 degrees F resulting in brain damage or death. Symptoms of heat stroke include hot, dry and flushed skin with little or no perspiration, mental confusion, incoherent speech, convulsions and unconsciousness. It is essential that the person be promptly cooled. Spray or soak individual with cold water and try to move him/her away from the heat source.*

***Note: IF CONSCIOUS, GIVE FLUIDS AND SEEK IMMEDIATE MEDICAL ASSISTANCE!**

A WORD OF CAUTION REGARDING ENERGY ENHANCING SUPPLEMENTS:

There is mounting evidence that numerous power building/energy enhancing dietary supplements may be a contributing factor in heat related injuries. Although many of these products claim to increase energy and stimulate weight loss, some contain Ephedra (“Ma Huang”), a powerful stimulant that can adversely affect your central nervous system. Other potentially dangerous side effects associated with Ephedra may include increased blood pressure, irregular heartbeat and stroke. In addition, Ephedra, combined with cold remedies, alcohol or caffeine may seriously impair your body’s ability to dissipate heat during strenuous physical activity. It is equally important to remember that beverages or products containing caffeine and alcohol also act as diuretics (fluid loss) that can result in severe dehydration and increased susceptibility to heat stress.

REMEMBER

1. **Drink plenty of water.** During Norfolk, VA months of heat (June through September), active duty service members should ingest fluids throughout work and liberty hours. Individuals working outside or those spending significant time indoors in non-air conditioned spaces should consume large amounts of water, preferably at 10 – 20 minute intervals. When the Wet Bulb Globe Temperature (WBGT) index is above 80, minimum cool requirements can range from 8 – 10 quarts per person per day doing light work such as deskwork, to 13-19 quarts per person per day for heavy work. A quick and reliable test of adequate hydration is urine output. Individuals can assume they are adequately hydrated if their urine is clear to pale yellow and does not have a strong odor. Thirst is not a reliable indicator.
2. **Salt Intake.** Salt tablets should not be used. Adequate salt intake is achieved through a balanced diet.
3. **Avoid dietary/energy supplements containing Ephedra and caffeine.** These products impair your body’s ability to dissipate heat while exercising.
4. **Limit exposure time.** This may prevent overheating (especially during the hottest part of the day). Liberally apply sunscreen.
5. **Dress appropriately for the temperature.** Clothing should be light colored (to better reflect the sun’s rays), layered and loose fitting (especially around the neck, arms, waist and lower legs). This permits air circulation, quicker evaporation, and ultimately aids in the cooling process. Uniforms should not be heavily starched since starch blocks the pores in the fabric and may restrict air circulation.

By following these basic rules, you will significantly reduce your risk in becoming a heat casualty. If you have any questions, please contact the U.S. Naval Medical Center, Portsmouth, Preventive Medicine Department at 953.5211 or your primary care manager. Have safe and enjoyable summer!