

## IMPORTANT MESSAGE FROM YOUR FRIENDS – STAY SAFE IN THE HEAT!

Friends of the Tonto scales back project work during summer months, when hot conditions can make working outdoors hazardous. Of course, some of you continue to recreate through the summer, and probably most of you are well aware of precautions necessary to stay safe when it's extremely hot. But we thought it wouldn't hurt to put some information out for you. The following is taken from the USDA Health and Safety Handbook. It is intended for workers, but it also applies to anyone recreating on the Forest, or anywhere it's hot, for that matter.

Please take a few minutes to look over this information, and stay safe and healthy!

### USDA HEALTH AND SAFETY CODE HANDBOOK FSH 6709.11

Individual differences in heat tolerance are related to drugs and medication, fatigue, fitness, hydration, and illness.

Heat stress occurs when the body's core temperature rises beyond safe limits. Sweat evaporation is the body's main line of defense against heat. As sweat evaporates, it cools the body. When water lost by sweating is not replaced, the body's heat controls break down, and body temperature climbs dangerously. Exposure to physical exertion, especially in high heat and high humidity conditions, can contribute greatly to heat-related emergencies.

Employees and Supervisors should observe the following:

1. Fit workers adjust or acclimate to work in the heat much faster than unfit employees. Be especially mindful to acclimate employees to changing conditions the first two to three days.
2. Schedule the hardest work during the cooler hours of the day. Set a moderate work pace. As the temperature increases, stop for frequent rest periods of at least 15 minutes. Relax in cool locations where possible.
3. Always have an adequate water supply available and ensure that employees are getting their needed liquids.
4. To prevent dehydration, employees should observe the following:
  - a. Drink eight to 16 ounces (200 to 400 milliliters) of water before work.
  - b. Take frequent drinks during each hour of work (one quart or one liter per hour).
  - c. Continue replacing fluids throughout the evening.

- d. Limit caffeine drinks, such as coffee, energy drinks, or sodas.
  - e. Avoid alcoholic drinks.
5. Provide well-planned meals and healthy snacks, which are vital to maintain work capacity and to avoid heat disorders through adequate replacement of water, salt, and potassium. Carbohydrate/electrolyte beverages can help maintain energy and work output during long periods without food or snacks. Include potassium-rich foods, such as bananas and citrus fruits. High-protein foods (such as meat) increase metabolic heat production and water loss and are not recommended.
6. Prevent sunburn by wearing lightweight, light-colored loose clothing, which allows air to circulate and sweat to evaporate and offers protection from direct sun. Bare skin absorbs the sun's radiant heat and raises body temperature.
7. During periods of continued extreme temperatures (90 °F/32 °C or above), ensure that Supervisors monitor employees and that employees watch each other for signs of heat-stress disorders, including heat cramps, heat exhaustion, and heatstroke.
- a. Heat cramps are muscle spasms that result from heavy sweating during physical exertion where the body loses significant amounts of water and salt; they are identified by muscle pains and cramps in the abdomen, arms, and calves. Heat cramps are generally caused by inadequate consumption of fluids or electrolytes during exertion. To prevent heat cramps, one may drink electrolyte solutions during exercise or strenuous work or eat potassium-rich foods like bananas and apples. When heat cramps occur, the affected person should avoid strenuous work and exercise for several hours to allow for recovery.
  - b. Heat exhaustion is characterized by heavy sweating, rapid pulse, fatigue, weakness, and collapse as a result of the body becoming overheated. The skin becomes pale, cool, and clammy and is accompanied by nausea, dizziness, a throbbing headache, breathing problems, and diarrhea. Without prompt treatment, heat exhaustion can lead to heatstroke. Recommended actions include moving to a cool shady place or air conditioned room or vehicle; lying on your back with your feet raised above heart level; drinking cool fluids such as water or sports drinks; and loosening your clothing. If possible, take a cool shower, soak in a cool bath, or put towels soaked in cool water on the skin. If there is no improvement within one hour, quickly seek medical attention.
  - c. Heatstroke is a medical emergency that requires immediate medical treatment. Heatstroke is caused by the body overheating, usually as a result of prolonged exercise or physical exertion in high temperatures. Heatstroke can occur if the body temperature rises to 104°F or higher. Symptoms are confusion, a high body temperature, hot (often dry) skin, a rapid pulse, convulsions, loss of consciousness, and coma. Lack of sweating is one sign of imminent heatstroke. Cool the body down

quickly. Administer fluids and transport the victim to a medical facility as quickly as possible. Untreated heatstroke may damage the brain, heart, kidneys, and muscles. As treatment is delayed, the risk of serious complications, including death, are increased.