

# Exertional Heat Illness

## ✓ Risk Factors:

- Dehydration - Overall we do a good job at keeping hydrated, don't stop reinforcing hydration.
  - Electrolyte imbalance - Sustained consumption of >1-2 quarts/hour of water may cause this, so include Gatorade in the liquid replacement.
  - Poor acclimation - Putting a crew used to 80's for temps in an environment of 100's for temps puts them at increased risk unless they have been in the area not doing physically stressing work for a week first.
  - Poor conditioning - Fitness and training are important, as we all know.
  - Heat retaining clothes - Can't really change this.
  - Hot weather, sun, low wind, and high humidity - Can't really change this either.
  - Sleep deprived - Yes, sleep is important. (P.S. So are showers!)
  - Heroic effort, 'never give up', 'warrior' mentality - Yes, this is a desired trait in our firefighters, but knowing when to cut back is also important.
  - High altitude - Can't do much about this as well.
  - Medications, herbs, supplements, energy drinks - Know what you are taking medication-wise and ask your doctor if there is an issue with heat. Energy drinks, yes, your Monster, 5 Hour Energy, etc., can cause a problem with your response to heat. It can raise your heart rate before starting work, as well as change your physiologic response to the heat - blood vessels don't respond appropriately, may not sweat as much as normal, and it may raise your base body temperature.
  - Prior heat exhaustion/stroke, sickle cell trait, certain muscle disorders - These medical conditions predispose you to heat illness and possibly death from the heat illness.
- ✓ Be cognizant about the people around you, know your crew. Watch for subtle signs: a little wobbly and no one else is, not responding as fast as normal, having to say/yell something twice, glass-eyed or distant look, just doesn't look right.
- ✓ On these hot days, try to find a way somewhere in the middle of the shift to take some time, 20-30 minutes, to do another task that isn't as intense, that you can find a little shade, cool off a bit, let your bodies rest and recoup a little. Hopefully this might deter a few heat illness problems.

-Jennifer Symonds, D.O., USFS