

CNF LESSON LEARNED

Date of Incident: November 16, 2009

Subject: HEAT RELATED INCIDENT

Incident: On November 16, 2009, a firefighter went down with a heat related injury and was transported to a local hospital for medical evaluation. The following timeline related to the incident was gathered from the injured firefighter:

0630-0645	-Breakfast of Kashi Protein cereal w/ Soy Milk, Juice, Light Yogurt, water
0800-1000	-Normal Admin duties, water, Gatorade
1030-1130	-Weight Training (Upper Back, Biceps, Shoulders)
1130	-Fire Dispatch
1140 - 1600	-Initial Attack Hose lay (very steep terrain, soft dirt, and poor traction) (Hydrated continuously, small cramps starting to happen in legs and arms)
1600-1620	-Tied hose lay into top of ridge, sent for more hose and hand tools, as well as additional drinking water for crews (On way down hill, upper thigh cramps started to the point where he could barely walk; made it down on his own power without help)
1620-1630	-Rehab at engines (drank more water, Gatorades, 1/2 power bar, rested)
1630-1640	-Started back uphill, made it 30 yards from Engines at bottom and experienced extreme full body cramping with intense pain, could barely walk
1640	-Notified Supervisor of condition and paramedics were alerted, decision was made to transport to Hospital
1700	-Hospital blood tests showed poor filtration already occurring in Kidneys (starting to fail) and extremely high levels of muscle enzymes in blood stream which also threw off electrolyte balance

The firefighter was informed by his doctor that his condition was in no way related to fluid intake. It came about from an extreme level of overexertion and lack of calories, which lead to what the doctor diagnosed as Rhabdomyolysis. The firefighter ended up spending two nights at the local hospital for evaluation of his condition.

Firefighter Lesson Learned: “I think we need to stay away from and be clear about this not being a hydration issue, as that seems to be what everyone automatically assumes as the culprit on any fire line injury. It's important to point out that caloric intake and dieting are also major considerations when we think about fire line health.”

Lessons Learned:

- Educate firefighters on the importance of maintaining a good diet. See “Eating for Health and Performance: The Wildland Firefighter” link below.
- Keep firefighters informed of hydration recommendations (1 qt/hr) for arduous work. See “Eating for Health and Performance: The Wildland Firefighter” link below.
- Educate firefighters on the risks of Heat Stress and what they should do to minimize those risks. See “Heat Stress” link below.

****Eating for Health and Performance: The Wildland Firefighter**** (MTDC Brochure)

<http://fsweb.mtdc.wo.fs.fed.us/pubs/pdfpubs/pdf06512833/pdf06512833dpi72.pdf>

****Heat Stress**** (MTDC Brochure)

<http://fsweb.mtdc.wo.fs.fed.us/pubs/pdfpubs/pdf98512841/pdf98512841dpi300.pdf>