

July 2008

Penn State EOC Challenge

Medical Dangers Facing the Hikers

The medical dangers to the hikers drives the response time. It is conceivable that the hikers could have fallen or have crossed through a mountain stream, causing their body temperature to drop rapidly in a short period of time, less than a few hours¹. This would be a case of 'acute hypothermia'. It is also conceivable that they would be exposed to extended duration cold weather over the long night, given them a case a 'chronic hypothermia'.

The current weather conditions indicate the hikers could have been exposed to temperatures around 40 Degrees, F for almost 12 hours at a time. Extended durations of temperatures below 50 F could be dangerous, even if they were able to stay dry. Per CC Austin, "Hypothermia is a serious, life threatening condition which occurs when the body loses heat faster than it can be generated." ² This condition can lead to fatigue, poor judgment, irrationality, and poor coordination, which might expose the hikers to other physical risks in the steep terrain.

At core body temperatures below 95 F, the body lessens its capability to generate heat.³ Below 86 F, the body assumes the temperature of the surrounding environment. The hikers may have had experienced these conditions several times since they were lost two days ago. In addition, As such, with the hikers out for several days, they need to be found as soon as possible.

¹ Wilderness Medicine: Beyond First Aid, William W. Forgey, 1999, Gobe Pequot Press, ISBN:076270490X

² Hypothermia Kills, Mobility Forum, November/December 2003, Bill Neitzke,

³ "Excerpts from Hypothermia", <http://www.emedicine.com/med/byname/hypothermia.htm>, emedicine.com.