



Defense Health Agency (DHA) Clinical Communities Speaker Series

Resource List – September 2020

Military Health Care- Select Promising Practices

Models and Decision Aids for Prevention of Thermal Injuries in Extreme Environment

Cold weather injuries are of significant military concern because of their adverse impact on operations and the high financial costs of treatment and disability. [Update: Cold Weather Injuries, Active and Reserve Components, U.S. Armed Forces, July 2014–June 2019](#) addresses the occurrence of such injuries during the cold seasons from July 2014 through June 2019. The timing of the annual updates is intended to call attention to the recurring risks of such injuries as winter approaches in the Northern Hemisphere, where most members of the U.S. Armed Forces are assigned.

Heat injuries are a major problem worldwide. Among those affected, the military and athletes are most vulnerable to heat injuries. [Monitoring Heat Injuries in a Hazmat Environment](#) shed light on mechanisms that are helpful in mitigating heat injury. The article stresses the importance of careful monitoring of vital signs is an important factor in avoiding heat injuries, along with strict monitoring of mental status through orientation, simple task completion, thought processes, and cognitive ability over time combine to be a powerful deterrent to heat injury in an austere and dangerous working environment.

The National Institute for Occupational Safety and Health (NIOSH) has evaluated the scientific data on heat stress and hot environments and has updated the [Criteria for a Recommended Standard: Occupational Exposure to Hot Environments](#) [NIOSH 1986a]. This revision includes additional information about the physiological changes that result from heat stress; updated information from relevant studies, such as those on caffeine use; evidence to redefine heat stroke and associated symptoms; and updated information on physiological monitoring and personal protective equipment and clothing that can be used to control heat stress.



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References

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Brown, D.B., Smith, M.J., & Kirkland, J.B. (2016). Monitoring heat injuries in a hazmat environment. *Federal Practitioner*, 33(2), 24–29. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6368930/>

Department of Health and Human Services (DHHS), Centers for Disease Control and Prevention (CDC), and National Institute for Occupational Safety and Health (NIOSH). (2016). *Criteria for a recommended standard: Occupational exposure to heat and hot environments*.

<https://www.cdc.gov/niosh/docs/2016-106/pdfs/2016-106.pdf>