
HEAT STRESS

MASHA Resources

- Heat Stress Safety Meeting Topic (Members: \$25.00; Non-members \$75.00)

The MASHA Safety Meeting Topic on heat stress is a self-contained training package that contains an information package, a leader's guide and participant's manual.

To purchase, or for further information, please contact Jean Chadbourn at: (705) 474-7233 ext. 279 or jeanchadbourn@masha.on.ca

Internet Resources

Centers for Disease Control (CDC)

- CDC National Center for Environmental Health: Extreme Heat
<http://www.cdc.gov/nceh/hsb/extremeheat/>

This CDC site provides a resource list of FAQs, links and tips for avoiding heat stress.

CCOHS

- Extreme Hot or Cold Temperature Conditions
http://www.ccohs.ca/oshanswers/phys_agents/hot_cold.html
- Hot Environments: Control Measures
http://www.ccohs.ca/oshanswers/phys_agents/heat_control.html
- Hot Environments: Health Effects
http://www.ccohs.ca/oshanswers/phys_agents/heat_health.html
- Humidex Rating and Work
http://www.ccohs.ca/oshanswers/phys_agents/humidex.html
- Thermal Comfort for Office Work
http://www.ccohs.ca/oshanswers/phys_agents/thermal_comfort.html
- Maximum Temperature Limit for Working
http://www.ccohs.ca/oshanswers/phys_agents/max_temp.html

All of the above refer to resources located in the "OSH Answers" portion of the CCOHS website. Each topic is arranged into a frequently-asked question format that addresses specific workplace concerns.

HSE (Health and Safety Executive—UK)

- Research Subject: Hot Conditions
http://www.hse.gov.uk/research/subject/h/hot_conditions.htm

Currently provides access to reports on hot conditions in the mining industry, and the development of a heat stress assessment methodology (for UK industry).

IAPA

- Heat Stress Fastfact
<http://www.iapa.ca/pdf/FreeDownloads2-heatstress.pdf>

“This Fastfacts document explains heat stress and how to control it. It includes a chart of heat related conditions and their signs and symptoms, cause, treatment and prevention.”

MSHA

- Heat Stress: What to Do
<http://www.msha.gov/s%26hinfo/heatstress/heatstresshp.htm>

This site is currently under development, but it does provide a jump point to those publications (e.g., MSHA safety manual, *HolmesSafety Association Bulletin* articles) that focus on heat stress.

- NIOSH Heat Stress Health Topic
<http://www.cdc.gov/niosh/topics/heatstress/>

This site provides access to NIOSH resources (NIOSHTIC-2 database, downloadable publications) pertaining to heat stress, along with a directory of external sites that provide additional support.

- Ontario Ministry of Labour—Heat Stress Guidelines
http://www.gov.on.ca/LAB/english/hs/guidelines/gl_heat.html

The MOL guideline on heat stress is “intended to assist employers, workers and other workplace parties in understanding heat stress, and in developing and implementing policies to prevent heat-related illness in the workplace.”

- OSHA Health and Safety Topic: Heat Stress
<http://www.osha.gov/SLTC/heatstress/>

Information provided on the OSHA health and safety topic page is organized based on the recognition, evaluation, control, and compliance actions involving heat stress.

- Work Safe Alberta: Working in the Heat
<http://www3.gov.ab.ca/hre/whs/publications/pdf/mg022.pdf>

This bulletin describes the factors that may affect a worker's ability to work in the heat and how to avoid heat stress.

Journals

Bancroft, Kris. 2003. Combating occupational heat stress: getting past the basics. *Occupational Health & Safety* 72 (7): 118-121.

As the title suggests, this article discusses the fundamental issues of occupational heat stress prevention, including temperature and humidity information, acclimatization, and diet.

Brake, D.J., and G.P. Bates. 2002. Deep body core temperatures in industrial workers under thermal stress. *Journal of Occupational and Environmental Medicine* 44 (2): 125-135.

A programme to continuously measure body core temperatures in 36 workers working in a hot underground mine was conducted.

Bumbarger, S. 2000. Reducing the hazards of high heat. *Occupational Health & Safety* 69 (5): 44-50.

Looks at the possible hazards of high-heat environments and the use of protective barrier suits (PBS).

Copeland, Julie. 2003. Be cool: proper attire helps prevent heat stress. *Professional Safety* 48 (3): 72-74.

Reports on the preparedness of workers in outdoor professions to prevent heat-related illnesses during summer in the U.S.

DeVaul, Randy. 2003. Heat stress precautions. *Occupational Health & Safety* 72 (5): 86-88.

This paper discusses the signs and symptoms of heat-related injuries and illnesses among workers, and explains how heat stress occurs.

Donoghue, A.M., and G.P. Bates. 2000. The risk of heat exhaustion at a deep underground metalliferous mine in relation to body-mass index and predicted VO₂ max. *Occupational Medicine* 50 (4): 259-263.

Investigates the risk of heat exhaustion at a deep underground metalliferous mine in relation to body-mass index (BMI) and predicted maximal oxygen uptake (VO₂ max) of miners, using case-control methodology.

Donoghue, A.M., and G.P. Bates. 2000. The risk of heat exhaustion at a deep underground metalliferous mine in relation to surface temperatures. *Occupational Medicine* 50 (5): 334-336.

Donoghue and Bates provide an analysis pertaining to the risk of heat exhaustion at an underground mine while monitoring thermal conditions occurring at the surface at the same time. The purpose of this study was to evaluate whether surface temperature data could be used to warn miners going underground about this risk.

Elliott, Fred. 2001. When the mercury soars. *Occupational Health & Safety* 70 (7): 94-96.

Advice on dealing with and preventing heat stress in workplaces is provided.

Hunt, Stacey. 2000. Beating the heat: the serious and sometimes life-threatening effects of working in hot conditions can be easily overcome. *Accident Prevention* 47 (3): 23-25.

Outlines the contributing factors that are associated with heat stress and what steps can be taken to prevent it from happening.

Krispin, K. 2000. As summer sizzles. *Safety & Health* 162 (1): 52-55.

Explores ways to educate employees so that they can work effectively and safely in hot temperatures.

Martin, M. 2001. Heat stress one-on-one. *Occupational Hazards* 63 (5): 71-74.

This paper explores the hazards associated with working at high temperatures and describes an acclimatization process used to minimize heat disorders.

Sarkis, K. 2000. Beating the heat. *Occupational Hazards* 62 (5): 79-80.

Sarkis looks at the problems pertaining to heat stress management at the workplace, the various medical conditions that can arise, and the ways to prevent heat stress from occurring.

Webster, Dan. 2004. Heat stress not a problem until someone dies? *Occupational Health & Safety* 73 (3): 50-54.

This article raises the issue of employers and employees reaching a compromise between productivity and heat stress prevention. Specifically uses the case of football/professional sports as an example.