June 2022

Prevention Update

Safety Matters @Work
Workers Compensation Board of PEI

Heat Stress

Employers have a duty under section 12 of the *Occupational Health and Safety Act* to take every reasonable precaution to ensure the health and safety of persons at the workplace. Everyone has a right to a safe working environment, this includes establishing and implementing policies and procedures for hot environments.

Safety concerns should be brought to the attention of an immediate supervisor. If those concerns are not addressed to your satisfaction, they should be submitted to the Joint Occupational Health and Safety Committee or the Health and the Health and Safety Representative.

What is heat stress?

Heat stress is the buildup of heat in the body to the point where the body's thermostat has difficulty maintaining normal internal body temperature. It happens when high temperature combines with other factors such as:

- High humidity
- Hard physical workload
- Clothing
- Dehydration
- Physical condition

Heat Stress Symptoms

- **Heat rash:** Itchy red skin.
- **Heat cramps:** Painful muscle cramps.
- **Heat exhaustion:** Fatigue; headache; confusion; nausea or vomiting.
- **Heat stroke:** No sweating (hot, dry skin), high body temperature, confusion, or convulsions. Get immediate medical help.

What to do if a person is suffering from heat stress?

If you believe you or another person may be subject to heat stress at your work-place, seek a first aid attendant immediately and notify your supervisor.

www.wcb.pe.ca
902-368-5680
Toll-free in Atlantic Canada 1-800-237-5049

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How to Prevent Heat Stress

When workers are exposed to a hazard from heat, the employer must have a plan to prevent heat stress and over exposure. Be sure to consider employee training and education, determine how to assess the heat conditions in the workplace, and identify what heat stress controls will be implemented.

Assessing Workplace Conditions

Temperature alone is not the only determining factor when assessing heat conditions in the workplace. To effectively measure the risk of heat stress one must consider the following six factors.

- Air Temperature
- Humidity
- Air Movement
- Radiant Energy
- Physical Exertion
- Clothing

Scan for more on Sun Safety

It's important to note that achieving thermal comfort can be challenging due to variability between workers. Factors such as levels of physical fitness, clothing being worn, and level of hydration all contribute to how workers perceive their comfort level at work, even if they are doing the same work in the same environment.

Performing a proper assessment will provide the information necessary to determine what heat stress controls are required at the workplace. Guidance on these controls can be found in the *American Conference of Governmental Industrial Hygienists (ACGIH) -Threshold Limit Values (TLVs)* publication.

Heat Stress Controls

- **Eliminate or substitute the work task to avoid heat hazards**
- **Worker acclimatization**
  Gradually increase worker exposure time in hot environmental conditions over a 7-14 day period. New workers will need more time to acclimatize than workers who have already had some exposure.
- **Engineering controls**
  Air conditioning, mechanical ventilation, shaded work area, control the heat at source, etc.
- **Administrative controls**
  Re-assign the work-rest regimen, cool drinking water, schedule jobs to cooler time of the day, personal physiological monitoring, training in the signs and symptoms if heat stress and strain, etc.
- **Protective clothing**
  Water/ice-cooled insulated clothing, light summer clothing, light colored clothing, head covering, etc.

For more information visit the WCB website and check out ***Guide to Prevention of Heat Stress at Work*****.**

Adopted with permission from the Nova Scotia Department of Labour & Advanced Education

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