

Beat the Heat: Preventing Heat Related Disorders

This Fast Fact is intended to help employees working in hot environments. It will also help OH&S professionals recognize and manage risk factors associated with heat-related disorders.

Currently, the Ontario Occupational Health and Safety Act and related regulations do not specifically outline any control methods with regards to managing heat exposure. However, sections 25(2) (h) and 27(2) (c) state that employers and supervisors must take “reasonable precaution” to protect their employees. Additionally, sections 21(1)(c) and 21(3) of the Health Care and Residential Facilities regulation state that “...an enclosed workplace shall be maintained at a temperature that is not likely to cause physical stress due to heat” and that the employer must put into place measures and procedures to ensure that a worker not be exposed to heat stress conditions that are likely to endanger or injure the worker.

Who is at greatest risk?

- Laundry staff
- Dietary staff
- Facilities staff (such as maintenance, housekeeping, and groundskeepers)
- Any staff working with clients/patients/residents outdoors
- Any staff working in warm or non air-conditioned environments

What is Heat Stress?

Heat stress is the combined heat load to which an employee may be exposed from a number of sources such as:

- High temperature and humidity
- Direct sun or radiant heat sources
- Limited air movement
- Physical exertion
- Poor physical condition
- Certain medications
- Workplace clothing requirements
- Inadequate acclimatization to hot environments

Mild or moderate heat stress may cause discomfort and affect employee performance and safety. However, it is not typically harmful to health. As heat stress levels increase to the human tolerance limit, the risk of heat-related disorders will also increase. Heat related-disorders include heat exhaustion, heat stroke, heat cramps and heat rash.

Prevention Measures

Control Measure	Indoor Environment	Outdoor Environment
Engineering	<ul style="list-style-type: none"> • Control the heat at the source through insulation of high heat producing equipment • Ventilation, localized air conditioning units, or large fans • Decrease the humidity by either air conditioning or installing dehumidification devices • Decrease the physical demands of work tasks via implementing mechanical assistance (e.g. dollies, moveable tray lines, spring loaded carts) • Install blinds, draperies, or shades on windows to reduce direct sunlight 	<ul style="list-style-type: none"> • Provide shade with umbrellas, covered patios, or gazebos

Control Measure	Indoor Environment	Outdoor Environment
<p><i>Administrative</i></p>	<ul style="list-style-type: none"> • Develop hot environment policies and procedures to protect employees • Assign additional employees and/or reduce the pace of work, if possible • Encourage employees to take frequent, short rest breaks away from the hot environment (in air conditioned environments if possible) • Provide cool drinking water and encourage employees to drink one cup of fluid every 20 minutes (even if they do not feel thirsty) • Educate employees on the signs and symptoms of heat related disorders • First aid trained employees should be educated to recognize and treat potentially heat related disorders • Employees should be encouraged to report any signs and symptoms immediately to their supervisor • Pregnant employees or employees with a medical condition should consult with their treating practitioner about working in hot environments • Employers should investigate all employee heat related incidents 	<ul style="list-style-type: none"> • Develop hot environment/weather policies and procedures to protect employees (consider using regional weather advisories such as smog alerts, Humidex and heat health alert systems to assess and manage employee job demands) • Encourage employees to take frequent, short rest breaks away from the hot environment such as shaded areas or air conditioned environments • Provide cool drinking water and encourage employees to drink one cup of fluid every 20 minutes (even if they do not feel thirsty) • Schedule labour intensive activities during cooler hours • Assign additional employees and/or reduce the pace of work, if possible • Limit exposure during peak UV radiation hours between 10 a.m. and 4 p.m. • Avoid direct sunlight • Educate employees on the signs and symptoms of heat related disorders • First aid trained employees should be educated to recognize and treat potentially heat related disorders • Employees should be encouraged to report any signs and symptoms of heat stress immediately to their supervisor • Pregnant employees or employees with a medical condition should consult with their treating practitioner about working in hot environments • Employers should investigate all employee heat related incidents
<p><i>Personal Protective Equipment</i></p>	<ul style="list-style-type: none"> • Encourage workers to wear light, loose fitting, breathable clothing (i.e. non-synthetic fibers) to allow for sweat to evaporate and air movement 	<ul style="list-style-type: none"> • Encourage workers to wear light, loose fitting, breathable clothing (i.e. non-synthetic fibers) to allow for sweat to evaporate and air movement • Encourage workers to wear light coloured clothing • Encourage employees to wear sunscreen of SPF 15 or greater according to the application directions on the bottle • Encourage employees to wear wide brimmed hats • Encourage employees to wear sunglasses that are both UVA and UVB absorbent

Please see Fast Fact FHEAE 147, *Beat the Heat: Identifying and Treating Heat Related Disorders* for more information.



The information contained in Fast Facts is correct at the time of publication.

The **Fast Facts** series is copyrighted by the Ontario Safety Association for Community Healthcare (OSACH). Individual Fast Facts can be copied freely provided appropriate credit is given to OSACH.

For more information, please contact:

Ontario Safety Association for Community & Healthcare

4950 Yonge Street, Suite 1505, Toronto, Ontario Canada M2N 6K1

Tel. (416) 250-7444 • Toll Free 1-877-250-7444 • Fax (416) 250-7484 • Web Site: www.osach.ca

FHEAE148 • Rev. 06/06 • ISBN 1-894878-31-0