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Heat Stress

Awareness and Prevention

Working and exerting oneself during extreme temperatures can place stress on the body's cooling system. When heat is combined with other stresses such as humidity, hard physical work, loss of fluids, fatigue or some pre-existing medical conditions, it may lead to heat-related illness, disability and can be life-threatening.



This can happen to anybody – even the young and fit. In Ontario, heat stress is typically a concern during the summer. This is especially true early in the summer, when people are not acclimatized to the heat.

The following list is provided to assist with preventing a heat-related illness.

- Complete [Heat Stress Awareness training](#) online by registering in Mosaic and review the [RMM 408 Heat Stress Prevention Program](#)
- Recognize the signs and symptoms of heat stress
- Limit physical activity in extreme heat, particularly if humidex is at or above 35C
- Stay indoors in air-conditioned areas if possible
- Avoid direct sunlight if possible, work in shaded areas
- Drink water often, 1 cup every 20 minutes at a minimum
- Take more frequent breaks if needed
- Wear light coloured and loose-fitting clothing, hat and sunscreen
- Inform a supervisors if feeling unwell, e.g. light headed, nauseous
- Contact Security Services if medical attention is required
- Complete an Injury/Incident report if experiencing a heat-related illness.

Know the Signs and Symptoms

It is very important to recognize the signs and symptoms of heat-related illnesses.

	Cause	Symptoms	Treatment	Prevention
Heat Rash	Hot humid environment; plugged sweat glands.	Red bumpy rash with severe itching.	Change into dry clothes and avoid hot environments. Rinse skin with cool water.	Wash regularly to keep skin clean and dry.
Heat Cramps	Heavy sweating from strenuous physical activity drains a person's body of fluid and salt, which cannot be replaced just by drinking water. Heat cramps occur from salt imbalance resulting from failure to replace salt lost from heavy sweating.	Painful cramps occur commonly in the most worked muscles (arms, legs or stomach); this can happen suddenly at work or later at home. Heat cramps are serious because they can be a warning of other more dangerous heat-induced illnesses.	Move to a cool area; loosen clothing, gently massage and stretch affected muscles and drink cool salted water (1½ to 2½ mL salt in 1 litre of water) or balanced commercial fluid electrolyte replacement beverage. If the cramps are severe or don't go away after salt and fluid replacement, seek	Reduce activity levels and/or heat exposure. Drink fluids regularly. Workers should check on each other to help spot the symptoms that often precede heat stroke.

			medical aid. Salt tablets are not recommended.	
Fainting	Fluid loss, inadequate water intake and standing still, resulting in decreased blood flow to the brain. Usually occurs in unacclimatized persons.	Sudden fainting after at least two hours of work; cool moist skin; weak pulse.	GET MEDICAL ATTENTION. Assess need for cardiopulmonary resuscitation (CPR). Move to a cool area; loosen clothing; have the person lie down; and if the person is conscious, offer sips of cool water. Fainting may also be due to other illnesses.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Move around and avoid standing in one place for too long. Workers should check on each other to help spot the symptoms that often precede heat stroke.
Heat Exhaustion	Fluid loss and inadequate salt and water intake causes a person's body's cooling system to start to break down.	Heavy sweating; cool moist skin; body temperature over 38°C; weak pulse; normal or low blood pressure; person is tired and weak, and has nausea and vomiting; is very thirsty; or is panting or breathing rapidly; vision may be blurred.	GET MEDICAL ATTENTION. This condition can lead to heat stroke, which can cause death quickly. Move the person to a cool shaded area; loosen or remove excess clothing; provide cool water to drink; fan and spray with cool water. Do not leave the affected person alone.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Workers should check on each other to help spot the symptoms that often precede heat stroke.
Heat Stroke	If a person's body has used up all its water and salt reserves, it will stop sweating. This can cause body temperature to rise. Heat stroke may develop suddenly or may follow from heat exhaustion.	High body temperature (over 41°C) and any one of the following: the person is weak, confused, upset or acting strangely; has hot, dry, red skin; a fast pulse; headache or dizziness. In later stages, a person may pass out and have convulsions.	CALL AMBULANCE. This condition can kill a person quickly. Remove excess clothing; fan and spray the person with cool water; offer sips of cool water if the person is conscious.	Reduce activity levels and/or heat exposure. Drink fluids regularly. Workers should check on each other to help spot the symptoms that often precede heat stroke.

Wearing Masks and Face coverings in Hot Environments

The use of face coverings, masks and respiratory protection is not linked to a significant increase in core body temperature. In general, the breathing resistance associated with N95 respirators is higher when compared to surgical/procedure masks while still providing adequate airflow. Regardless, it may not be comfortable for a wearer to use these devices in hot environments or while performing strenuous work.

Here are some tips to minimize the discomfort.

- Store masks in fridge to keep them cold
- Try to breath through your nose vs mouth as this reduces humidity inside the mask
- Utilize insert or brackets that can be placed inside a mask to make additional space so mask is not touching the mouth
- Change mask more frequently especially when mask gets damp or soiled in any way
- Continue to follow heat stress prevention practices