

Hot weather plan for Smith Engineering

Trigger

Ontario guidelines require that employers have a hot weather plan for use between May 1 and September 30 of each year for use when any of the following conditions are present:

- the humidex¹ on-site reaches or exceeds 35°C
- [Environment Canada](#) reports air temperature that exceeds 30°C **and** a humidex of 40
- heat waves of 32°C or more are predicted for three or more days
- the Ontario Ministry of the Environment, Conservation and Parks issues [a smog alert](#)

Note: Queen's University Environmental Health & Safety - [Working in Hot Environments SOP](#) and Ministry of Labour Guidelines ([Appendix A](#))

Action

Given that most of our spaces have air conditioning, there should be few cases where the plan is triggered. Given the effects of climate change, it may at times be necessary to include days outside of the range of dates specified above. When we do experience hot conditions in our workspaces:

1. When employees can work remotely in a cooler environment (ie: touch-down spaces in other buildings like the BMH group rooms, at home if feasible, etc.), they should be advised to do so.
2. For those employees who work in essential on-site roles,
 - Ensure that fans are available²
 - Ensure that water is available
 - Provide the opportunity for more frequent breaks in air-conditioned areas (ARC, adjacent buildings etc.)
 - Ensure employees are monitored and that no one is working alone
 - Cease any strenuous physical work

¹ Each office space should have a portable device capable of displaying an accurate temperature and relative humidity, such as [this one](#). There is a humidex calculator [here](#).

² Only use fans if the temperature is below 35°C (if fans are used when the temperature is above 35°C they may recirculate the hot air, which can prevent cooling)

- Have a plan for what to do when employees show any signs of heat stress.
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Illnesses due to heat stress

Heat rash

Red bumps on skin with severe itching caused by hot humid environments and plugged sweat glands.

Treatment: **Change into dry clothes and avoid hot environments. Rinse your skin with cool water.**

Prevention: Wash **regularly to keep skin clean and dry.**

Heat cramps

Muscle pain in overworked areas such as arms, legs or stomach, caused by a salt imbalance from heavy sweating. This can happen at work or later at home.

Treatment:

You should:

- move to a cool area
- loosen clothing
- gently massage and stretch affected muscles
- drink cool, slightly salted water or a beverage with electrolytes
- **not** take salt tablets

If the cramps are severe or don't go away after drinking salt water or a beverage with electrolytes, **get medical help right away (Emergency Contacts Below).**

Prevention:

You should:

- reduce activity levels
- reduce heat exposure
- drink fluids regularly
- check on your coworker(s) for any irregular behaviour

Fainting

This is caused by fluid loss and not enough water intake. Before losing consciousness, you may not experience any warning symptoms but if you do, the common signs are:

- cool, moist skin
- weak pulse

Treatment:

You should:

- **Get medical attention (Emergency Contacts Below)**
- Move to a cool area
- Loosen clothing
- Lie down
- If awake, sip some cool water

Prevention:

You should:

- Reduce activity levels
- Reduce heat exposure
- Drink fluids regularly
- Check on your coworker(s) for any irregular behaviour
- Avoid standing in one place for too long

Heat exhaustion

Caused by the breakdown of your body's cooling system. Symptoms can include:

- heavy sweating
- cool, moist skin
- body temperature above 38°C
- weak pulse
- low blood pressure
- tired and weak
- nausea and vomiting
- very thirsty
- panting or breathing rapidly
- blurred vision

Treatment:

Do not leave the person alone and:

- **get medical attention (Emergency Contacts Below)**
- move to a cool area
- loosen or remove clothing
- drink and spray cool water

Prevention:

You should:

- reduce activity levels

- reduce heat exposure
- drink fluids regularly
- check on your coworker(s) for any irregular behaviour

Heat stroke

Heat stroke is caused by the breakdown of your body's cooling system and has a high risk of irreversible damage to body organs and organ systems. Some people with heat stroke lose the ability to sweat and are not very physically active when ill (classic heat stroke), while others experience heat stroke while still sweating and active (exertional heat stroke).

Symptoms include:

- high body temperature (above 40°C)
- a fast pulse
- headache or dizziness
- passing out
- weakness, confusion or acting strangely
- hot, dry, red skin (classic heat stroke) or profusely sweating (exertional heat stroke)

Treatment:

You should:

- **call an ambulance (Emergency Contacts Below)**
- remove excess clothing
- drink and spray cool water

Prevention:

You should:

- reduce activity levels
- reduce heat exposure
- drink fluids regularly
- check on your coworker(s) for any irregular behaviour

Emergency and Assistance Contacts

Life-threatening emergency response
Police, Fire and Rescue, Ambulance

Dial 911
then please contact the
Emergency Report Centre

Campus Security and Emergency Services

Emergency Report Centre
Safety Concerns, persons in distress,
emergency assistance

613-533-6111



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