

Working in Cold Environments

Protecting Workers from Cold Stress

Working in cold environments may affect the body's ability to regulate temperature. This may lead to cold related illnesses such as severe shivering, frostnip, frostbite, hypothermia and can be life-threatening.

Cold stress is the disruption of the body's thermal balance due to exposure to cold. Outdoor workers are at risk of suffering cold stress during the winter. Apart from the general discomfort associated with working in low temperatures, there are additional and generally avoidable hazards to worker health and safety.

It is incumbent upon Supervisors to inform workers of cold stress hazards due to cold processes or cold weather and instruct them on how to control those hazards. This includes developing cold environment safe work procedures.

EHS Bulletin - Working in Cold Environments

The [Working in Cold Environments bulletin](#) [1] explains how to recognize the signs and symptoms of cold stress and how to prevent them, and provides guidance on preventing cold stress through worker awareness and preventative measures.

Extreme Cold Weather Response Plan

The Extreme Cold Weather Response Plan (ECWRP) is a protocol for extreme cold weather response and is intended to alert those at high risk of cold-related illness to take appropriate precautions to manage cold stress due to weather conditions.

General practices/controls for reducing cold exposures already in place:

- Workers have received information about how to prevent cold stress
- Workers can recognize the symptoms of cold stress
- Workers have access to adequate warm areas for use during break periods

When developing the ECWRP, Supervisors should take steps, as appropriate, to implement additional measures/controls to mitigate extreme cold health impacts. Controls will vary depending on the type of workplace, type of work and other factors. Refer to the Working in Cold Environments Bulletin for information on additional measures/controls to manage cold stress induced by extreme cold weather.

Appropriate precautions should be considered for any work in cold temperatures below 4 degrees Celsius. However, the implementation of the ECWRP is triggered when outdoor wind-chill temperatures are expected to be below -25 degrees Celsius. At these temperatures, work in outdoor environments can be life-threatening for workers if appropriate preventative measures are not taken. Reducing the risk of cold injury can be accomplished by the use of appropriate personal protective equipment and adherence to safe work procedures.

For more information or if you require assistance:

If you require assistance regarding cold stress prevention or the selection of appropriate control measures for reducing cold exposures in your work area, contact the [Occupational Hygienist](#) [2] at 519-824-4120 ext. 54855.

Links to additional useful resources:

[Cold Environments – Health Effects and First Aid \[3\]](#)

Source URL:<https://www.uoguelph.ca/hr/ehs/working-cold-environments>

Links

[1] https://www.uoguelph.ca/hr/system/files/Working%20in%20Cold%20Weather%20Bulletin_2.pdf [2] <mailto:bryanlee@uoguelph.ca> [3] http://www.ccohs.ca/oshanswers/phys_agents/cold_health.html