

HEAT STRESS

How to Protect Workers from Heat-Related Illnesses

What is Heat Stress

Heat stress is a condition that occurs when the body is unable to regulate its internal temperature in response to external heat. The human body relies on maintaining a stable core temperature to function properly, and when exposed to high temperatures, especially in combination with high humidity, the body may struggle to dissipate heat.

Key factors contributing to heat stress include:

Environmental Conditions: Temperature and humidity, lack of air movement, and radiant heat sources.

Physical Activity and Clothing: Demands of a job, PPE worn, and break frequency & duration.

Inadequate Hydration: Dehydration reduces the body's ability to sweat and cool down.

Lack of Acclimatization: Acclimatization allows the body to adapt gradually to heat.

What are the Signs of Heat-Related Illness?



Heat Edema:

Cause: Swelling among non-acclimatized individuals working in hot conditions, primarily noticeable in the ankles.

Prevention: Acclimate to hot conditions gradually, elevate legs when possible, and maintain hydration.



Heat Rashes:

Cause: Tiny red spots with severe itching in hot, humid environments due to sweat gland ducts becoming plugged.

Prevention: Keep skin dry, use powders, wear loose clothing, and return to a cooler environment for relief.



Heat Cramps:

Cause: Sharp muscle pains resulting from a salt imbalance due to heavy sweating, amplified by inadequate fluid intake.

Prevention: Move to a cooler area, hydrate with electrolyte-rich fluids, and rest to alleviate cramps.



Heat Exhaustion:

Cause: Loss of body water and salt through excessive sweating, leading to symptoms such as heavy sweating, weakness, dizziness, visual disturbances, intense thirst, nausea, headache, muscle cramps, breathlessness, palpitations, and skin which is pale, cool, and moist.

Prevention: Move to a cool area, provide cool water if possible, and seek medical attention. Can progress to heat stroke if left untreated.



Heat Syncope:

Cause: Heat-induced dizziness and fainting due to decreased blood flow to the brain, often occurring among unacclimatized individuals.

Prevention: Rest in a cool area, avoid vigorous activity in extreme heat, and rehydrate to facilitate rapid recovery.



Heat Stroke:

Cause: Most severe heat illness, marked by a medical emergency, and characterized by a high body temperature, loss of consciousness, confusion, and hot, dry skin.

Treatment: Move to a cooler place, cool the body with ice packs, and seek immediate medical attention. Differentiate between exertional and non-exertional types based on sweating patterns.



UNDERSTANDING YOUR RESPONSIBILITY

EMPLOYER/MANAGEMENT:

Provide Training: Understand the hazards, recognize the signs and symptoms, and understand preventive measures.

Implement Policy: Guidelines for breaks, hydration, and protective equipment.

Monitor Conditions: Regularly assess environmental and adjust work schedules if necessary.

Provide Adequate Hydration: Ensure access to clean, cool drinking water, and encourage regular hydration.

Provide Shade: Offer shaded or air-conditioned areas for breaks.

SUPERVISOR:

Monitor Workers: Watch for signs of heat stress and encourage breaks as needed.

Encourage Hydration: Remind workers to stay hydrated by drinking water regularly.

Adjust Work Schedules: When possible, schedule strenuous tasks during cooler parts of the day and implement work-rest cycles.

Promote Acclimatization: Gradually introduce workers to hot conditions.

INDIVIDUAL:

Self-Monitoring: Be aware recognize the early signs of heat stress.

Hydration: Drink water regularly. Avoid caffeinated or alcoholic beverages.

Clothing: Wear light-coloured, breathable, cooling PPE. Include sunscreen and head protection if necessary.

Take Breaks: Take regular breaks in shaded or cool areas.

Report Symptoms: If you or a coworker experience symptoms of heat stress, report it promptly to supervisors.



Our Solutions Include:



Heat Stress Training



Personal & Area Monitoring



Cooling PPE (Personal Protective Equipment)



Hydration

For more information about Heat Stress check these resources:



Blog

How to stay safe during a heat wave in Canada



Fast Track Catalogue

Get the safety products you need in a flash!



Article

Heat Stress - How to protect workers