

The Outdoor Heat Illness Prevention Program is designed to ensure that production employees receive adequate information relevant to the potential hazards of working outdoors in hot weather conditions (over 80 degrees Fahrenheit or 26.5 degrees Celsius).

Environment Canada issues Heat and Humidex Advisories when temperatures are expected to reach or exceed 30°C/ 86°F and/or the Humidex value (a combination of humidity and temperature) is expected to reach or exceed 40 on the Humidex scale of perceived temperature.

Definitions

Here are some of the key terms that relate to heat illness prevention:

Acclimatization

Temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

Heat Illness

A serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope and heat stroke.

Heat Wave

Environment Canada defines a heat wave as "a period with more than three consecutive days of maximum temperatures at or above 32°C/ 90°F."

Environmental risk factors for heat illness

Working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing, and personal protective equipment worn by employees.

Personal risk factors for heat illness

Factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.

Shade

Blockage of direct sunlight. One indicator that blockage is sufficient is when objects do not cast a shadow in the area of blocked sunlight. Shade is not adequate when heat in the area of shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthy conditions and that does not deter or discourage access or use.

Temperature and Humidity

The dry bulb temperature in degrees obtainable by using a thermometer to measure the outdoor temperature in an area where there is no shade. While the temperature measurement must be taken in an area with full sunlight, the

bulb or sensor of the thermometer should be shielded while taking the measurement, e.g., with the hand or some other object, from direct contact by sunlight.

Humidex is used to monitor the combined effects of warm temperatures and humidity on a person's perception of how hot they feel. Use of a Humidex table can provide guidance for workplaces to screen and monitor for heat stress with recommended actions.

Responsibilities

Production Safety Representative

The Production Safety Representative will introduce this Program to production, including any key department heads (construction, special effects, locations, etc.), and will explain best practices for implementation. In some cases the Studio may designate an alternate safety professional to assist production. Responsibilities include:

- Providing an up-to-date written Program to production.
- Working jointly with affected departments, as needed, in establishing reasonable guidelines to protect employees from heat illness.
- Monitoring the program as needed and providing advice on specific program concerns.
- Providing assistance in the investigation of heat illnesses, as necessary.
- Making training resources available to assist in prevention of heat illness, and to comply with applicable heat illness regulations.

Department Heads / Supervisors (Management / Department Heads)

Management will oversee and coordinate the responsibilities of this heat illness program.

- Supporting and enforcing safety guidelines for the prevention of heat illness.
- Attending heat illness safety training and following heat safety procedures.
- Providing water and access to shade to employees as required by this program.
- Responding to and evaluating symptoms of heat illness.

Employees

Employee responsibilities include:

- Understanding and complying with this program
- Attending heat illness safety training and following heat illness safety procedures
- Seeking assistance with heat illness safety when needed
- Immediately, or as soon as practical, reporting heat related illness to their appropriate foreman or supervisor
- Reviewing the call sheet and its attachments
- Attending all daily safety meetings

Outdoor Heat Illness Prevention Program Elements

Communication

Communication of heat illness prevention information to employees is an important part of the program. In addition to training, certain elements in this program require specific employee notifications (for example, reminders to drink water frequently throughout the workday).

Examples of communication include, but are not limited to, verbal announcements, electronic communication, use of production “call sheets,” etc.

Training

Employees and supervisors who are assigned to outdoor work shall receive training in elements of this Outdoor Heat Illness Prevention Program.

Supervisor Training

Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

- The procedures the supervisor is to follow to implement the applicable provisions of the Outdoor Heat Illness Prevention Program.
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.
- How to monitor weather reports and how to respond to high heat.
- All training elements listed for “Employee Training”

Employee Training

All employees shall receive heat illness prevention training prior to working outdoors. Training shall include:

- The environmental and personal risk factors for heat illness.
- Procedures for complying with the requirements of the regulation.
- The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties.
- The importance of acclimatization.
- The different types of heat illness and the common signs and symptoms of heat illness, the first being pale, cool sweaty skin.
- The importance to employees of immediately reporting to the employer, directly or through the employee’s supervisor, symptoms or signs of heat illness in themselves, or in co-workers.
- Procedures for responding to symptoms of possible heat illness, including methods for summoning medical assistance.

Training Documentation

Training should be documented following the guidelines in the Injury and Illness Prevention Program. Employees may have received prior training from another company or Studio. Before accepting documentation of previous training, a review for training documentation should be made.

NOTE: Regardless of prior training/documentation, all employees must receive site specific familiarization to the elements contained in this Outdoor Heat Illness Prevention Program.

Access to Water

Employees shall have access to and know the location of fresh, pure and suitably cool potable drinking water in accordance with the following requirements:

- Where the supply of water is not plumbed or otherwise continuously supplied, water shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift.
- Employees may begin the shift with smaller quantities of water if they have effective procedures for replenishment during the shift as needed to allow employees to drink one quart or more per hour.
- Monitor water containers and encourage employees to report to a supervisor or designated person low levels of water.
- Place water containers as close as practicable to the areas employees are working.
- Disposable/single use drinking cups will be provided to employees, or provisions will be made to issue employees their own cups each day.
- Encourage frequent drinking of water. Management or foreman should provide reminders to employees to drink frequently. This can be done at start of shift and throughout the day. Methods to communicate with employees include, but are not limited to, the following:
 - Use of noise making devices, such as air horns at appropriate intervals, as reminder alerts to hydrate.
 - Electronic reminders using two-way radios, cell phones or other communication devices.
 - Verbal announcements.

Access to Shade

Consideration for shade shall be made as follows:

- Temperatures below 80 degrees F / 26.5 degrees C:
 - Shade must be made available or timely access to shade must be provided upon employee request.
- Temperatures above 80 degrees F / 26.5 degrees C:
 - Shade must be available in one or more areas as follows:
 - Shade must be open air or be provided with ventilation or cooling.
 - The amount of shade present shall be at least enough to accommodate the number of employees on recovery or rest periods so that they can sit in a normal posture fully in the shade without having to be in physical contact with each other.
 - The shade shall be located as close as practicable to the areas where employees are working.
 - During meal periods the amount of shade present should accommodate the number of employees on the meal period.

Employees shall be allowed and encouraged to take a preventative cool-down rest in the shade when they feel the need to do so to protect themselves from overheating. An employee who does take a cool-down rest:

- Should be monitored and asked if he or she is experiencing symptoms of heat illness.
- Provide appropriate first aid or a medical response as appropriate.
- Should be encouraged to remain in the shade.
- Should not return to work until signs and symptoms of heat illness have abated.

Where it is infeasible or unsafe to have a shade structure, or otherwise to have shade present on a continuous basis, alternate procedures for providing access to shade may be provided if the alternative provides equivalent protection.

- Umbrellas, canopies, awnings or other portable devices - relocated as needed.
- Trees with an adequate canopy of leaves.
- Access to offices, vehicles or other buildings with air conditioning.

Procedures for Responding to Symptoms of Heat Illness

Procedures for responding to symptoms of possible heat illness should include:

- Having a medic on-site, if necessary.
- Having cell phones or other reliable means of communication to contact "911." NOTE: Electronic devices may be used only if reception in the area is tested and determined to be reliable.
- Posting the production location address and the address of the nearest hospital on the call sheet.
- Having available a map to the location.

Acclimatization

A supervisor or designee must closely observe all employees during a heat wave. Similarly, a supervisor or designee shall, for the first 14 days of the employee's employment, closely observe any employee who has been newly assigned to a high heat area.

Heat Illness Prevention Implementation Guidelines

In general, environmental risk factors for heat illness are highly likely to be present April through the end of October in most areas; however actual weather conditions will determine the need for implementation of this program.

The following guidelines establish a minimum implementation plan. Always consider environmental risk factors such as actual weather conditions, type of work being conducted, a person's physical condition, and acclimatization when determining when to implement this program.

Temperatures below 80 degrees F / 26.5 degrees C

- Begin to consider implementation of Heat Illness Prevention training.
- Provide employees access to potable drinking water.
- Encourage frequent drinking of water.
- Provide availability to shade.

Temperatures above 80 degrees F / 26.5 degrees C

- Ensure Heat Illness Prevention Program training is in place.
- Assign and implement regular temperature checks.
- Continue to provide access to potable drinking water.
- Provide and encourage frequent drinking of water.
- Provide shade.
- Provide air-conditioning and ventilation. Consider extra fans and misters.
- Implement scheduled work breaks
- Evaluate clothing employees are wearing, including PPE. Adjust as needed.
- Continue to be observant of employees showing signs/symptoms of heat illness.
- Ensure that employees can communicate by voice, observation or by electronic means (e.g. Phone, radio) between the worksite and the employer in order to report heat related illness concerns.
- Ensure that procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider are in place.
- Ensure that, in the event of emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.
- In the event of a “heat wave” employees should be closely observed for signs and symptoms of heat illness.

High Heat Procedures

Due to the potentially greater threat to employee health, high-heat conditions (when the temperature exceeds 86 degrees F / 30 degrees C and/or the Humidex value (a combination of humidity and temperature) is expected to reach or exceed 40 on the Humidex scale of perceived temperature) have additional requirements.

The Humidex Based Heat Response Plan (developed by the Occupational Health Clinics for Ontario Workers (OHCOW)) is used to assess heat stress and controls (G7.29-4).

A Humidex table and Humidex-based Heat Stress Calculator is available from the Canadian Centre for Occupational Safety and Health (CCOHS). https://www.ccohs.ca/oshanswers/phys_agents/humidex.html

Table 2 – Recommended Actions Based on the Humidex Reading

Source: Occupational Health Clinics for Ontario Worker (OHCOW)

Humidex 1

Moderate physical work, un-acclimated worker, OR heavy physical work, acclimated worker

Humidex 2

Moderate physical work, acclimated worker, OR light physical work, un-acclimated worker

Humidex 1	Response	Humidex 2
25 – 29	Supply water to workers on a “as needed” basis	32 – 35
30 – 33	Post heat stress alert notice Encourage worker to drink extra water Start recording hourly temperature and relative humidity	35 – 39
34 – 37	Post heat stress warning notice Notify workers that they need to drink extra water Start recording hourly temperature and relative humidity	40 – 42
38 – 39	Work with 15 minutes relief per hour can continue Provide adequate cool water (10-15 degrees Celsius)	43 – 44
40 – 41	Work with 30 minutes relief per hour can continue in addition to the provisions listed previously	45 – 46
42 – 44	If feasible, work with 45 minutes relief per hour can continue in addition to the provisions listed above	47 – 49
45 or over	Only medical supervised work can continue	50 and over

1. PRE-SHIFT MEETINGS should be held. The following should be covered:
 - a. A review of high-heat procedures
 - b. Provide and encourage employees to drink plenty of water
 - c. Reminding employees of their right to take a cool-down rest when necessary
 - d. Identifying who should call for emergency services
 - e. Describing how employees will be observed
2. OBSERVATION of employees for signs and symptoms of heat illness is especially important. This can be accomplished with one or more of the following:
 - a. With 20 or fewer employees, a supervisor (or designee) can monitor
 - b. Using a mandatory buddy system, so no employee is working alone
 - c. Establishing regular communication (such as by radio or cell phone) with any employee who is working alone
 - d. Other effective means of observation
3. A SPECIFIC EMPLOYEE should be designated to contact emergency medical services, if needed. All employees can call for emergency help, but it is sometimes more efficient to assign this responsible to an individual, such as the set medic.

Online Provincial/Regional Information

Each Province/Regional Public Health Care System has heat related illness information available online on their individual Public Health websites.

The Canadian Center for Occupational Health and Safety (CCOHS) has heat illness information available online to help both employers and employees understand the risks of heat related illness on the job site.