



# Heat Illness Prevention

Environmental Health and Safety



## I. Purpose

- v. Notify Northwestern project managers or representatives of work areas that may contain heat-related hazards and employees who may be experiencing signs or symptoms consistent with possible heat-related illness
- vi. Oversee the acclimatization of new employees and employees who have been off the job for a period of time.

## IV. Evaluation and Determination of Heat Hazards

- A. When the heat index is 80°F or higher in indoor (e.g., mechanical rooms, utility tunnels, steam vaults, utility plants) and outdoor environments, serious heat-related illnesses and injuries become more frequent, especially in workplaces:
  - i. Without easy access to cool water or cool/shaded areas
  - ii. When working in direct sunlight or areas where other radiant heat sources are present
  - iii. Where unacclimatized workers are performing strenuous work (e.g., intense arm and back/lifting work, carrying, shoveling, manual sawing, pushing and pulling heavy loads, and walking at a fast pace).
  - iv. In full sunshine, which can increase heat index values by up to 15°F.
- B. A heat priority area exists when:
  - i. The [heat index](#) is expected to be 80°F or more, or
  - ii. The National Oceanic and Atmospheric Administration (NOAA) or National Weather Service (NWS) has announced a heat warning, heat advisory, excessive heat outlook, excessive heat watch, excessive heat warning, excessive heat advisory, or heat wave for the local area.
- C. Heat priority areas are categorized into four risk levels as follows:

Heat Index	Risk Level	Protective Measures
Less than 91°F	Lower (caution)	Basic heat safety and training
91° to 103°F	Moderate	Implement precaution & heightened awareness
103° to 115°F	High	Implement critical precautions

## V. Heat Illness Prevention Plan Activation

A. When individuals are exposed to high priority areas (see

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## X. Regulatory Authority and Related Information

Northwestern and contractors will comply with Occupational Safety and Health Administration (OSHA) standards, and any other applicable codes and standards, including:

[National Institute for Occupational Safety and Health \(NIOSH\) Recommended Heat Standard:](#)

[Occupational Exposure to Heat and Hot Environments](#)

[NIOSH First Aid for Heat Illness](#)

[OSHA Technical Manual \(OTM\) Section III: Chapter 4 - Heat Stress](#)

[OSHA Heat Illness Prevention Campaign](#)

[OSHA/NIOSH InfoSheet: Protecting Workers from Heat Illness](#)

[Centers for Disease Control \(CDC\) Workplace Safety and Health Topics: Heat Stress](#)

[NIOSH Criteria for a Recommended Standard: Occupational Exposure to Heat and Hot Environments](#)

[American Conference of Governmental Industrial Hygienists \(ACGIH\)](#)

[National Weather Service \(NWS\)](#)

[National Oceanic and Atmospheric Administration \(NOAA\)](#)

[OSHA/NIOSH Heat Safety Tool App](#)

## XI. Contact

For questions contact Environmental Health and Safety at [safety@northwestern.edu](mailto:safety@northwestern.edu) or (847) 467-6342.

## Appendix 1– Heat Illness Prevention Example Control Measures

Departments and contractors must implement the necessary combination of controls when individuals are exposed to heat hazards to prevent heat-related illness. Below are examples of control measures.

### A. Engineering controls

- i. Air-conditioning.
- ii. Increase ventilation (e.g., opening windows or using cooling fans)
- iii. Eliminate steam leaks
- iv. Shut down hot machinery/equipment when feasible
- v. Run local exhaust ventilation where heat is produced (e.g., laundry vents)
- vi. Use reflective exposure suits



- iv. Dermal patches for monitoring core temperature to identify when individuals need to be removed from the work area.
- v. Heart rate monitoring to identify when individuals need to be removed from the work area. Both sustained (180 bpm minus age) and recovery (120 bpm after a peakwork effort) heart rates are recommended guidelines to prevent heat-related illness.