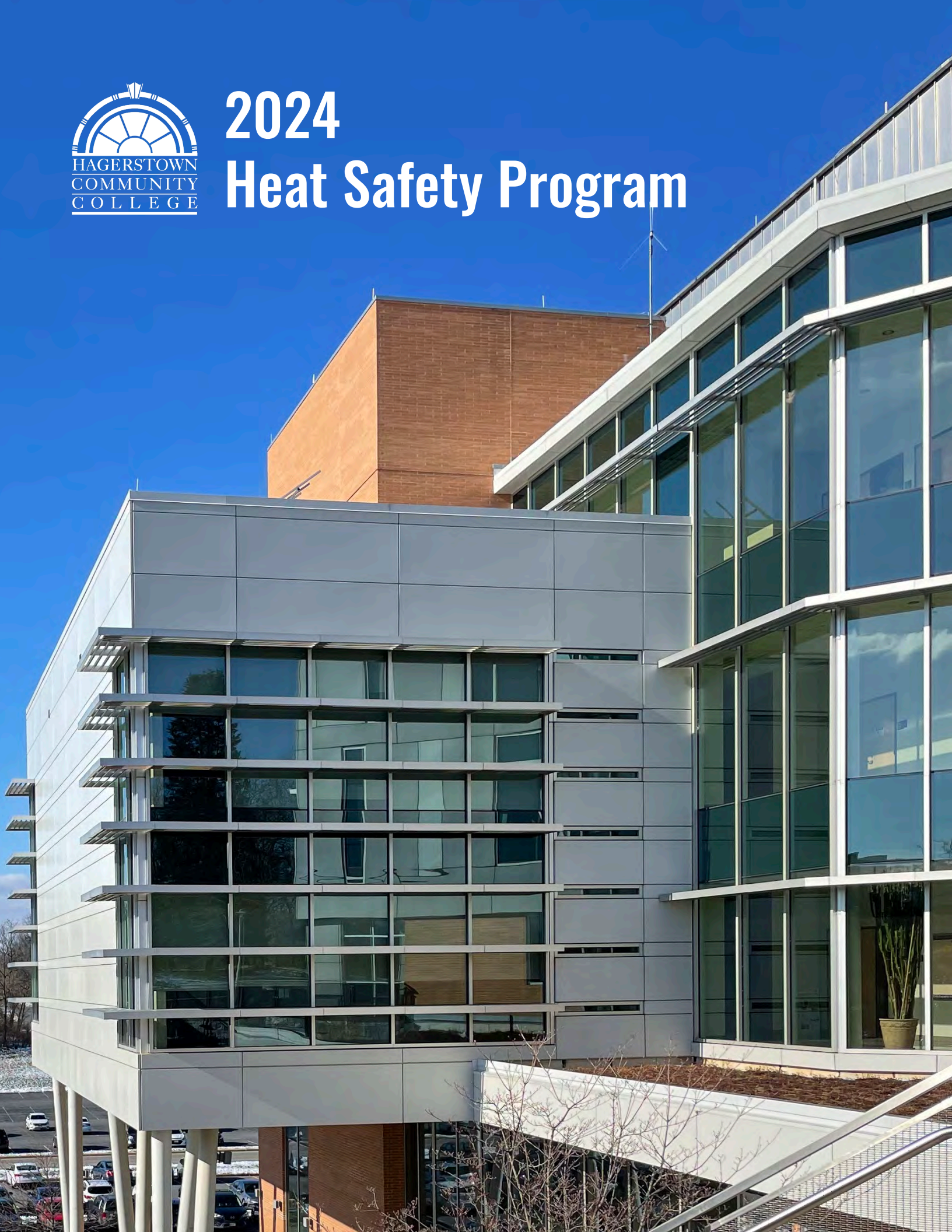
HAGERSTOWN COMMUNITY COLLEGE

2024 Heat Safety Program



Hagerstown Community College
Campus Police
Heat Safety Program

I. INTRODUCTION

Hagerstown Community College is committed to maintaining safety standards for all appropriate departments across the HCC campus. This document describes the policies related to all work operations on the HCC campus where there may be a personal safety issue related to Heat Stress Illness. This written plan sets performance provisions designed to protect faculty, staff, and students from potential hazards and injury with the use of established procedures, equipment, personal protective equipment, and safe work practices.

Members from the Shared Governance Safety Committee at Hagerstown Community College have developed this Heat Stress Illness Prevention Plan such that a safe work environment exists on campus and the satellite location used by students, faculty and staff. This plan is intended to provide the necessary work practices to promote a culture of safety within the HCC campus community.

This Plan is intended to satisfy the requirements of the Maryland Department of Labor, Subtitle 12 Division of Labor and Industry, Chapter 32 Heat Stress Standards. Authority: Labor and Employment Article, §§2-106(b)(5) and 5-1201(b), Annotated Code of Maryland

The program was prepared using criteria provided by the Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH) and the Maryland Occupational Safety and Health (MOSH).

II. SCOPE

The Heat Safety Program applies to HCC personnel (faculty, staff, and students) whose activities, conducted indoor and outdoor, exposes them to a heat index in the work area that equals or exceeds 80 °F for more than 15 consecutive minutes per hour. The program is not applicable to activities performed by emergency responders, student athletes, or visitors. This program is also not applicable to buildings, structures, and vehicles that have a mechanical ventilation system or fan that maintains the heat index below 80 °F.

Contractors should utilize their own heat safety programs.

III. REGULATIONS AND GUIDELINES

Although currently there is not a specific OSHA standard for heat stress, employees are protected under the General Duty Clause. Additionally, MOSH Heat Stress Illness Prevention criteria, as well as guidance provided by OSHA, the Centers for Disease Control and Prevention (CDC), and the National Institute of Occupational Safety and Health (NIOSH) were included in the development of this program.

IV. DEFINITIONS

Heat Acclimatization
The improvement in heat tolerance that comes from gradually increasing the intensity or duration of work performed in a hot setting. The best way to acclimatize the body to the heat is to increase the workload performed in a hot setting gradually over a period of 1 – 2 weeks.

Heat Illness Prevention and Management Plan
A written plan for how the department will adhere to the elements of the Heat Safety Program.

Heat Stroke
The most serious heat-related illness. It can occur when the body can no longer control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Heat stroke can cause permanent disability or death if the person does not receive emergency treatment.

Heat Exhaustion
A heat-related illness characterized by elevation of core body temperature above 100.4 F and abnormal performance of one or more organ systems without injury to the central nervous system. Heat exhaustion may signal impending heat stroke.

Heat Cramps
A heat-related illness characterized by spastic contractions of the voluntary muscles (mainly arms, hands, legs, and feet). Usually associated with restricted salt intake and profuse sweating without significant body dehydration.

Heat Rash
Skin irritation caused by excessive sweating during hot, humid weather.

Heat Index
A measure of how hot it feels when relative humidity is considered with actual air temperature.

VI. ROLES AND RESPONSIBILITIES

The Department of Public Safety & Human Resources

- Administrator of the HCC Heat Safety Program (i.e. Develop, implement, monitor for compliance, and review the Heat Safety Program.)
- Monitor injuries, illnesses and incidents related to heat safety and assist in developing corrective actions and lessons learned.
- Oversee and document training, as it relates to the Heat-Related Injury and Illness Prevention plan
- Division Directors
- Ensure the department has appropriate heat-illness prevention resources available to employees.
- Communicate responsibilities to supervisors within the department.

Supervisor and Manager

- Plan for, implement and monitor heat-illness control measures for employees under their supervision.
- In cases where employees report risk factors that may make them more susceptible to heat stress, consider modified duty or direct the employee to contact HCC Human Resources
- Complete the Heat Illness Prevention and Management Plan.
- Report all incidents to direct supervisor and then to the Administrative Assistant to the Vice President of Finance 240-500-2330.

Employee

- Complete all required training for the Heat Safety Program.
- Notify Supervisor or Manager of any health conditions (see Section VII) that you deem could impact the duties.
- Utilize heat-illness control measures.
- Monitor self-conditions as well as check in on colleagues.
- Report incidents to supervisor regarding all heat-related illnesses.
- Report hazardous conditions related to heat exposure.

HEAT SAFETY PROGRAM ELEMENTS:

The Heat Safety Program addresses six (6) key areas of heat-illness prevention:

1. Conducting a Risk Assessment to identify areas and tasks with potential heat exposure hazards, considering temperature, humidity, radiant heat sources, and ventilation. Identify personal risk factors for increased risk of heat-related illnesses.

2. Training and educating HCC staff and students on heat-illness prevention strategies, as well as recognizing and reporting the signs and symptoms of heat-related illnesses.

3. Monitoring weather and workplace conditions. Environmental factors (e.g. humidity, wind temperature, and radiant heat), clothing, and workload (i.e., metabolic rate) are considered when determining f there is a heat hazard present in an indoor or outdoor workplace.

4. Completing a Heat Illness Prevention and Management Plan when weather or workplace conditions will exceed a heat index of 80 °F for more than 15 consecutive minutes per hour.

5. Implementing heat-illness prevention strategies to reduce heat stress. This includes:
   a. Reducing worker exposures to heat stress conditions.
   b. Establishing a heat acclimatization plan to help workers adapt to working in the heat.
   c. Ensuring workers are provided adequate water, shade and rest periods.
   d. Monitoring workers for early signs and symptoms of heat stress.

6. Planning for heat-related medical emergencies and ensuring victims receive prompt medical attention.

VII. RISK ASSESSMENT

When there is the possibility of heat-related illness occurring, you must determine the risk to workers. The assessment must include a survey of the work areas with potential heat exposure, as well as determination of the radiant heat sources, air movement, temperature and humidity associated with the activities.

Another consideration included for this assessment involves the personal risk factors. It is the responsibility of the employee to communicate conditions necessitating adjustments to assigned work.

- Some **health conditions** may cause you to be less likely to sense and respond to changes in temperature.
  - Diabetes
  - High blood pressure
  - Heart disease
  - Kidney disease
  - Mental health conditions
  - Overweight or obese
  - Asthma and chronic obstructive pulmonary disease (COPD)
  - Have had prior heat-related illnesses

- Certain **medications** may cause you to be less likely to feel heat conditions and/or limit your ability to seat or retain water to cool your body.
  - Antihistamines
  - Blood pressure medications
  - Diarrhea medications
  - Diuretics (water pills)
  - Muscle relaxants
  - Psychiatric medications
  - Sedatives
- Some **physical characteristics** may cause you to become dehydrated faster and/or limit your ability to cool your body.
  - Older age (60 years and older)
  - Lower level of physical fitness
  - Pregnancy
  - History of prior heat illness
  - Working in direct sunlight

Review the Personal Risk Factors and Heat Exposure Fact Sheet located on the Heat Safety Program website at: www.osha.gov/publications/bytopic/heat-illness-prevention

VIII. TRAINING AND EDUCATION

To ensure workers are prepared to work safely under hot and humid conditions, all staff and students who may be exposed to heat stress and heat-related illnesses during work activities must receive training on an annual basis prior to the start of the season for hot conditions (generally May of each year). New hires who start during the season of hot conditions must complete training during their first week of hire and prior to working under hot and humid conditions. Retraining of staff and students must occur immediately following any incident at the worksite involving a suspected or confirmed heat-related illness.
HCC will provide online training to students, faculty, and staff. This training will be managed by the HCC Human Resources Office. All training will be documented in Kronos to ensure all faculty and staff (to include student workers) are receiving the required training.

See the Maryland Occupational Safety and Health website for additional information:
www.labor.maryland.gov/labor/mosh/moshheatstress.shtml

IX. MONITORING WEATHER AND WORKPLACE CONDITIONS

Employee, supervisors, and division directors are responsible for monitoring the daily weather and workplace conditions to determine if workers will be exposed to heat indices > 80 °F. The National Weather Service (www.weather.gov) should be used to monitor weather conditions. An additional tool is the OSHA-NIOSH Heat Safety Tool App (available in English and Spanish for Android and iPhone devices).

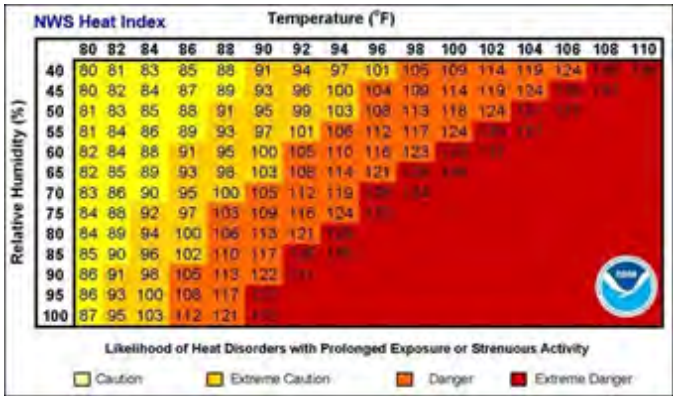
Heat Index for Indoor environments can be monitored by measuring the temperature, humidity and using a heat index chart.

A. Outdoor Environments

When measuring heat index for outdoor environments, the NIOSH-OSHA Heat Safety Tool App, or sources provided above may be used for accurate data.

OSHA-NIOSH Heat Safety Tool App.
FOR OUTDOOR USE ONLY

In addition to the heat index, the app also displays protective measures that should be taken at that risk level to protect workers from heat-related illness-reminders about drinking enough fluids, scheduling rest breaks, planning for and knowing what to do in an emergency, adjusting work operations, gradually building up the workload for new workers, training on heat illness signs and symptoms, and monitoring each other for signs and symptoms of heat- related illness.

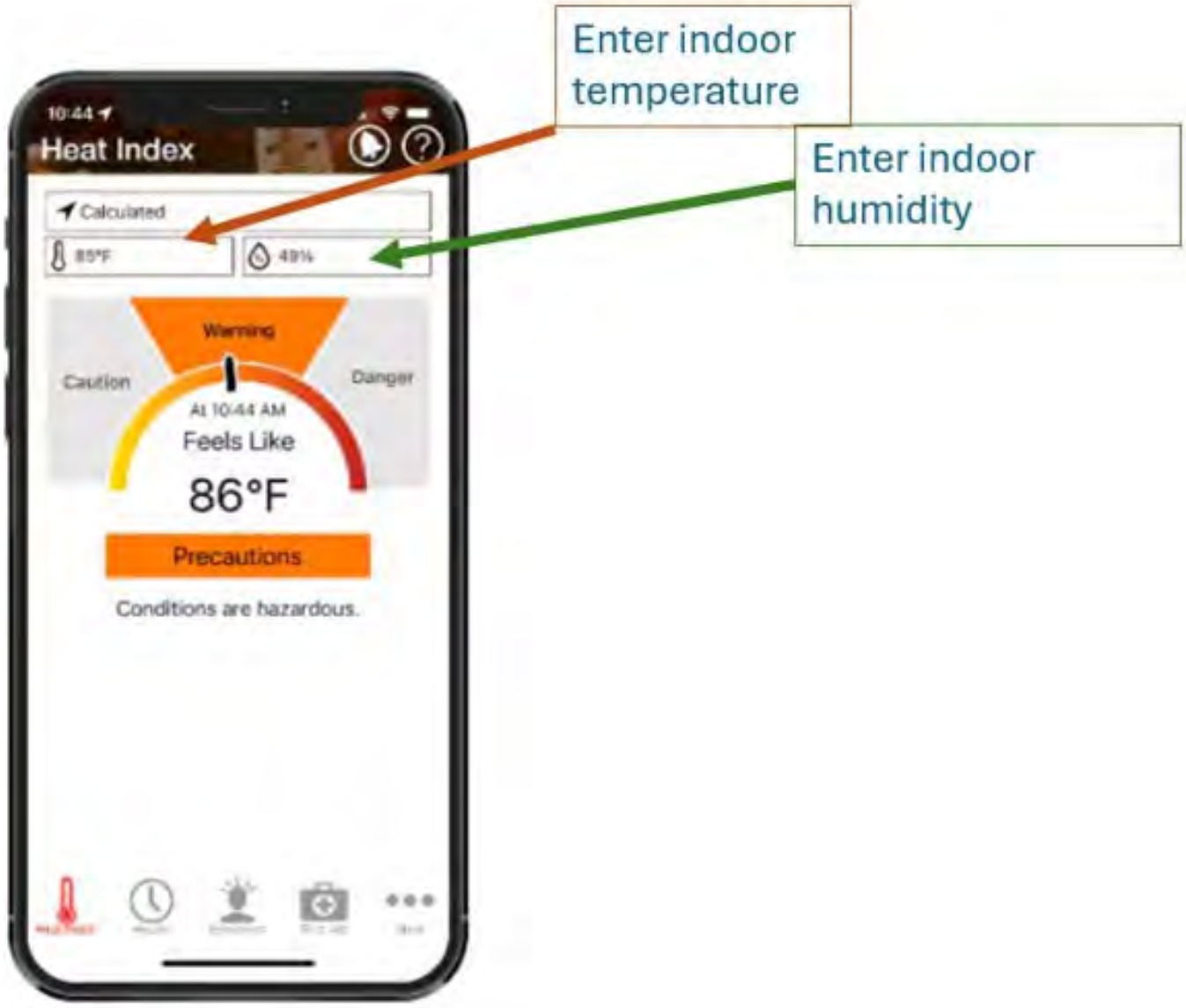


NWS Heat Index Chart
FOR INDOOR OR OUTDOOR ENVIRONMENTS

Utilizing the NWS Heat Index chart, once you measure the temperature and relative humidity, you locate each of your values on the chart and see where those values intersect to determine the heat index.

B. Indoor Environments

Employees working in buildings and structures that do not have mechanical ventilation must directly measure the temperature and humidity at the same time and location in areas where employees perform work. When measuring the heat index in indoor environments a thermometer and hygrometer (humidity meter) is required. Once you have readings for both the temperature and relative humidity, you can utilize the NWS Heat Index chart, or enter in the temperature and humidity levels into the NIOSH-OSHA Heat Safety Tool App. The resulting heat index will be automatically calculated.



Additionally, a heat index monitor can be used to get a direct reading.

For further information, please contact the HCC Police Department at 240-500-2308 or Camppol@hagerstowncc.edu

IX. MONITORING WEATHER AND WORKPLACE CONDITIONS

When weather or workplace conditions will exceed 80 °F, affected departments or units must complete a Heat Illness Prevention and Management plan.

Using the HCC template included in Appendix A, supervisors or managers must complete, implement, and maintain a written copy of the plan.

The plan must also be made available to employees, HCC Police, OSHA, and to MOSH upon request.

IX. MONITORING WEATHER AND WORKPLACE CONDITIONS

Workloads

Depending on the workload of the employee, the heat prevention strategies may need to be adjusted to include more frequent breaks in the shade and drinking water.

Acclimatization

The goal of acclimatization is to gradually increase exposure time under hot environmental conditions over several days. This allows the body to adjust to hot conditions, which will result in more efficient evaporative cooling. For a period of 14 days, Supervisors and Managers must provide for acclimatization of exposed staff and students and shall observe employees regularly for the symptoms of heat-related illnesses.

Employees must be acclimatized when an employee is newly exposed to heat in the workplace and when the employee returns to work after seven or more consecutive days of absence from the workplace.

Review the Heat Acclimatization Fact Sheet located in Appendix C of this plan
A heat acclimatization schedule must be developed and implemented which complies with one of the following:

(1) A schedule which gradually increases exposure time over a 5 - 14-day period, with a maximum 20% increase each day
(2) A schedule which uses the current National Institute for Occupational Safety and Health's recommendations for acclimatization
(3) A schedule which uses a combination of gradual introduction and alternative cooling and control measures that acclimate an employee to heat

The acclimatization schedule must be in writing and include the following elements:

(1) Acclimated and unacclimated employees
(2) Environmental conditions and anticipated workload
(3) Impact of required clothing and personal protective equipment to the heat burden on employees
(4) Personal risk factors that put an employee at higher risk of heat-related illness
(5) Re-acclimatizing employees as necessary
(6) The use of alternate cooling and control measures

Ventilation

In indoor environments, increased air flow or convection using fans, etc. in the work area. Changes in air speed can help workers stay cooler by increasing both the convective heat exchange and rate of evaporation.

Shade

Shaded and/or air-conditioned space nearby for rest and water breaks must be provided.

Hydration

To prevent dehydration, employees must drink adequate water at frequent intervals (i.e. one 8-ounces of cool water every 15 to 20 minutes). Pure and potable water must be made available to workers at no additional cost. Water quantities need to be sufficient and at least 1 quart per worker per hour for the entire shift.

Resting

To prevent dehydration, employees must drink adequate water at frequent intervals (i.e. one 8-ounces of cool water every 15 to 20 minutes). Pure and potable water must be made available to workers at no additional cost. Water quantities need to be sufficient and at least 1 quart per worker per hour for the entire shift.

Personal Protective Clothing

- Reflective clothing can reduce radiant heat reaching the worker.
- Cooling vests
- Lightweight, breathable clothing (when working with non-hazardous materials or equipment).

XII. RESPONDING TO HEAT-RELATED MEDICAL EMERGENCIES

When workers are exposed to heat stress conditions, it is critical to ensure adequate supervision, first aid and medical services are readily available in the event a worker suffers from a heat-related illness. It is best to activate the emergency response system for all serious or life-threatening emergencies.

Heat Rash is an irradiation of skin due to excessive sweating. Preventative measures – Wear loose fitting clothing that allows sweat to dissipate. Wear freshly laundered clothing each day. Avoid working in sweat-soaked clothing for prolonged periods. Wash sweat-soaked areas with mild soap and water and dry thoroughly at breaks and after your shift ends.

a. A victim will have itchy and painful clusters of red blisters. Common to the neck, chest, groin, armpits and creases of the elbows and knees.
b. First Aid – Move person to a cool location. Have person take a cool shower, if able to do so. Thoroughly dry the skin following the shower. Continue to ensure skin is cleaned and dried. Seek medical attention if rash persists for more than two days or if rash becomes infected.

Heat Cramp – is a caused by depletion of salt and water in the body due to excessive sweating. This is a precursor to more serious heat exhaustion and/or heat stroke. Prevention – Acclimatization to heat helps reduce salt and water loss. Drink adequate amounts of water throughout the day. Salt your foods to taste.

a. A victim will have muscle cramps, spasms and/or pain. Common to major muscles used for work (arms, legs, abdominals, and back muscles.
b. Move the person to a cool location or in the shade. Provide the person with an electrolyte replacement fluid to replace the lost salt and water. Seek medical treatment if cramps persist or other heat-illness symptoms develop (elevated body temperature, elevated heart rate, headache, dizziness, etc.)

Heat Exhaustion is caused by a loss of body fluids and overheating of the body. The body is unable to cool. This is a serious condition that can lead to a life-threatening heat stroke. Preventative measures – Acclimatization to heat helps reduce salt and water loss. Drink adequate amounts of water throughout the day. Take small breaks in the shade. Protect the skin against sunburn which reduces the body's ability to cool itself.

a. A victim will have symptoms of normal to high body temperature, cool, moist skin, nausea, headache, dizziness, and weakness. Elevated body temperature of 99.6 to 101.4 F. Weak but rapid pulse.
b. To treat heat exhaustion:
    - Activate the Emergency Medical System by calling 911, then call HCC Police at 2308 or 240-500-2308.
    - Move the victim to a cool area;
    - Remove excessive clothing;

- Give the victim a cool drink if not feeling nauseous and if fully conscious; and
- If the victim refuses water, vomits, or starts to lose consciousness,
- Spray skin with cool water and fan rapidly
- Monitor the body temperature and continue cooling efforts.

Heat Stroke is a more serious result of heat exposure is caused by a high body temperature.
Heat stroke can be FATAL. Causes of heat stroke – Body is unable to cool itself and regulate core body temperature. Prevention – Acclimatization to heat helps reduce salt and water loss. Drink adequate amounts of water throughout the day. Take Small breaks in the shade. Protect the skin against sunburn which reduces the body's ability to cool itself.

a. A victim will have symptoms of high body temperature, NO SWEATING, and poor circulation. Elevated core body temperature above 103.2 F. Hot dry skin or heavy sweating. Mental confusion, agitation and/or irrational behavior, clumsiness, slurred speech, and seizures or convulsions.
b. To treat heat stroke:
    - Activate the Emergency Medical System by calling 911, and then call HCC Police at x2308 or 240-500-2308.
    - Get the victim out of the heat.
    - Remove the victim's outer clothing; and
    - Provide immediate and aggressive cooling to the body. Apply cool, wet cloths to the skin and/or ice packs to areas such as wrists, armpits, back of neck, back of knees, and abdomen.
    - Elevate feet above heart level
    - Pack ice in groin and armpit areas
    - Soak skin with cool water and fan rapidly and vigorously.
    - Administer CPR, if trained and as needed, until EMS arrives

XIII. ASSESSMENT OF THE OUTDOOR AND INDOOR HEAT-RELATED INJURY AND ILLNESS PREVENTION PLAN

To help our community to identify job-related risk factors for heat exposure, assess preparedness, determine where challenges exist, and develop effective ways to control their heat-related risk, unit self-assessment, will continually improve the means for protecting our community from heat-related illnesses and injuries. This checklist provided in Appendix B helps HCC to identify job-related risk factors for heat exposure, assess preparedness, determine where challenges exist, and develop effective ways to control heat-related risk and make our workplaces safer. It is recommended that the units use this checklist for self-assessment to ensure that a compliant plan is in place.

XIV. RECORDS RETENTION

Each department must maintain completed Outdoor/Indoor Heat Illness Prevention and Management Plans for 1 calendar year, making them available for inspections/audits by regulators. This requirement is in accordance with the MOSH requirements regarding the having these Plans available upon request.

XV. HEAT SAFETY PROGRAM RESOURCES

The following documents support the HCC Heat Safety Plan:

- Heat Safety Training
- Heat Safety Training Course Summary Sheet
- Heat Illness Prevention and Management Plan template
- Heat Illness Prevention Checklist

Fact Sheets

- Personal Risk Factors and Heat Exposure
- Heat Acclimatization
- Ways to Protect Yourself and Others
- Work Safely in Heat
- Keep Workers Well-Hydrated

XVI. HCC POLICE DEPARTMENT CONTACT

Email: Camppol@hagerstowncc.edu
Website: NEW Web page with Environmental health information

Appendix A

HCC Heat Illness Prevention and Management Plan

Appendix B

Checklist for Outdoor and Indoor Heat-Related Injury and Illness Prevention

APPENDIX C