

COOS COUNTY HEAT ILLNESS PREVENTION PLAN

This Heat Illness Prevention Plan provides essential guidelines for all employees working in hot environments or during heat events (heat index equal to or exceeds 80 F), whether indoors or outdoors. Heat illnesses can develop rapidly and may become life threatening if not addressed promptly.

Employee Responsibilities

All employees are responsible for practicing safe work habits and adhering to this Plan, which outlines required training, policies, and best practices to prevent heat related illness. Key responsibilities include:

- Completing all assigned heat safety training.
- Recognizing and responding to symptoms of heat illness in themselves and others.
- Reporting symptoms immediately to a supervisor.

Management Responsibilities

- Enforcing safe work practices.
- Providing employee training on heat illness prevention.
- Ensuring access to water and cooling methods appropriate to the level of heat risk.
- Monitoring weather forecasts and anticipated heat index values to take timely preventive measures.

Monitoring the heat index is the first and most critical step in preventing heat illness on the job. The **heat index** is a combined measure of **air temperature and relative humidity** that reflects how hot it feels to the human body. When both temperature and humidity are high, the body's natural cooling mechanisms become less effective, increasing the risk of heat-related illness.



All employees with County Phones should download the heat index app to their work phones. Go to the app store put in Heat Index and look for the above image. For information on app features, click on this 5-minute YouTube link: <https://www.youtube.com/watch?v=VQg-cGDLnDQ>.

The national weather service also offers a Heat index calculator at [Heat Index Calculation](#). Which can be accessed through your county computer or visit <https://www.wpc.ncep.noaa.gov/html/heatindex.shtml>

If you are working in a building or structure that does not have a mechanical cooling system, it's recommended the *NIOSH Heat Index app* be utilized to determine the heat index outdoors and assume that it is the same indoors.

Coos County recommends the following:

80°F or greater	Ensure shaded areas are available and check the Heat Index using the App.	Ensure 32 ounces of water is available for each employee
90°F or greater	10 minutes rest break (minimum)	Every two hours
100°F or greater	15 minutes rest break (minimum)	Every hour

Every year, people die in occupational settings from exposure to excessive heat and many more suffer a heat-related illness; most of these are preventable. Heat-related illnesses can happen if workplace activities in a hot environment overwhelm the body's ability to cool itself. This becomes more likely if any of the environmental or personal risk factors below, are present.

Environmental risk factors for heat illness:

- Air temperature above 90 degrees F
- **Relative humidity above 40 percent**
- Radiant heat from the sun and other sources
- Conductive heat sources such as dark-colored work surfaces
- Lack of air movement
- Strenuous activity
- Use of nonbreathable protective clothing and other personal protective equipment

Personal risk factors for heat illness:

- Lack of acclimation to warmer temperatures
- Poor general health or age, particularly 40 years or older
- Dehydration
- History of heat stroke
- Alcohol consumption, which can cause dehydration
- Caffeine consumption
- Previous heat-related illness
- Wearing dark or heavy clothing
- Use of prescription medications that affect the body's water retention or other physiological responses to heat such as beta blockers, diuretics, antihistamines, tranquilizers, and antipsychotics

Employees are responsible for knowing and educating themselves about their own personal risk factors that may increase their chance for suffering a heat-related illnesses.

HEAT-RELATED ILLNESSES

1. Heat Rash – this is the most common and is caused by sweating

Symptoms: A red cluster of pimples or small blisters, usually on parts of the body that overlap or rub other parts of the body.

Treatment: Find a cooler, less humid work environment, if possible. Keep the affected area dry and avoid use of ointments and creams that make the skin warm or moist, which can make the rash worse.

2 Heat Exhaustion – during activity, drink plenty of clear fluids to replace perspiration

Symptoms:

- Profuse sweating; weakness and fatigue
- Nausea and vomiting
- Muscle cramps (associated with dehydration)
- Headache
- Light-headedness or fainting (fainting or loss of consciousness is potentially serious and should be treated as a medical emergency).

Treatment:

- Stop the activity and move to a cooler environment.
- Drink water (or electrolyte-replacing sports drinks). Avoid caffeine.
- Wait until your core temperature returns to normal, otherwise symptoms may quickly reappear.

If there is no intervention and the body's temperature regulation fails, heat exhaustion can rapidly progress to heat stroke, a life-threatening condition.

3 Heat Stroke – requires emergency medical attention to prevent permanent damage to the brain and other vital organs that can result in death

Symptoms:

- Lack of sweating
- Confusion or lethargy
- Absence of sweating
- Dry skin
- Agitation or strange behavior
- Dizziness, disorientation, or lethargy
- Seizures or signs that mimic those of a heart attack
- Internal body temperature may exceed 106 degrees F.

Treatment:

- Call emergency responders immediately if heat stroke is suspected
- Cool the employee, or wet the skin. Place cold, wet cloths on the skin if possible
- Move the employee to an airconditioned environment or a cool, shady area
- Remove any unnecessary clothing and soak remaining clothing with cool water
- Stay with the employee until emergency medical services arrive.

4 Heat Cramps – usually affects workers who sweat a lot during activity

Sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

5 Rhabdomyolysis – associated with prolonged physical exertion

Rhabdomyolysis is a medical condition associated with heat stress and prolonged physical exertion, resulting in the rapid breakdown, rupture, and death of muscle. When muscle tissue dies, electrolytes and large proteins are released into the bloodstream that can cause irregular heart rhythms and seizures, and damage the kidneys.

Symptoms of rhabdomyolysis include:

- Muscle cramps/pain
- Abnormally dark (tea or cola colored) urine
- Weakness
- Exercise intolerance
- Asymptomatic

6 Heat Syncope – fainting episode or dizziness

A fainting episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization

Symptoms of heat syncope include:

- Fainting (short duration)
- Dizziness
- Light-headedness during prolonged standing or suddenly rising from a sitting or lying position

Note: heat-related illnesses can occur at a heat index of less than 91 degrees Fahrenheit.

PREVENTING HEAT-RELATED ILLNESSES

Supervisors shall provide drinking water free of charge and employees should monitor their water supply throughout the day. If more water is needed, a supervisor needs to be alerted.

When the heat index is equal to or greater than **80 degrees F**, there should be 32 ounces of water provided per employee, per hour and access to shade (preferably close to the work site). Water temp should be cool (less than 77 degrees).

- Ensure that water is located throughout the work area, inside of vehicles and in the back of vehicles in a cooler.
- Make arrangements to replenish the water supply throughout the day, as necessary.
- Don't hesitate to call your supervisor and ask them to bring more water, if needed.
- For those working alone, make sure you monitor your water supply.
- Gradually increase workloads and take frequent breaks during the first week of work so that you become acclimatized to higher temperatures, especially those who are new to working in the heat or have been away from that work for a week or more.
- Frequently drink small amounts of water before you become thirsty to stay hydrated. During moderate activity, in moderately hot conditions, drink about 8 ounces of liquid every 15 to 20 minutes.
- Eat regular meals and snacks as they provide enough salt and electrolytes to replace those lost through sweating as long as enough water is consumed.
- Make a buddy system with other employees to encourage each other to drink water, use shade to stay cool, and to watch each other for symptoms of heat-related illness.
- Be aware that drinking extreme amounts of water can also be harmful (more than 12 quarts in a 24-hour period).
- Schedule frequent rest periods with water breaks in shaded or air-conditioned recovery areas. Note that air conditioning does not result in loss of heat tolerance.
- Be aware of the signs of heat-related illnesses and report immediately if you or a co-worker show symptoms.
- Monitor weather reports daily and reschedule jobs with high heat exposure to cooler times of the day, if possible. Be extra vigilant when air temperatures rise quickly. When possible, schedule routine maintenance and repair projects for the cooler parts of the year.
- Utilize shade or cool areas for breaks.
- Use evaporative accessories (cooling neck wraps, head bands).
- Wear sunscreen and hats when working outdoors.

ACCLIMATIZATION

Supervisors and employees must understand and implement acclimatization strategies to reduce the risk of heat-related illness. Gradual exposure to hot environments helps the body adjust and significantly improves heat tolerance.

What Is Acclimatization?

Heat acclimatization refers to the body's ability to adapt to high temperatures over time by gradually increasing the intensity and duration of physical activity in a hot environment. Skipping this process can increase the risk of heat illness, especially for new or returning workers.

Recommended Acclimatization Schedules

Following NIOSH guidelines, County recommends:

- **New Workers:**
 - Day 1: Limit to 20% of typical work duration in the heat
 - Increase exposure by no more than 20% each day thereafter
- **Experienced Workers (Returning to Hot Conditions):**
 - Day 1: 50% exposure
 - Day 2: 60% exposure
 - Day 3: 80% exposure
 - Day 4: 100% exposure

Note: The degree of acclimatization varies depending on individual physical fitness and the total heat stress experienced.

Maintaining Acclimatization

- Workers typically retain heat tolerance even after short absences (e.g., weekends).
- A break of one week **or** more may lead to a significant loss in heat adaptation, requiring a gradual re-acclimatization period.

Additional CDC Insights

- Acclimatization can often be regained within 2 to 3 days upon return to a hot job.
- Physically fit individuals generally maintain heat tolerance more effectively.
- Seasonal changes can disrupt acclimatization and require renewed adaptation.
- Adaptation in hot, humid conditions may also benefit workers in dry, desert climates—and vice versa.
- Air conditioning does not reverse acclimatization.

EMERGENCY MEDICAL PLAN

At every worksite, the designated supervisor or person in charge is responsible for contacting 911 in the event of a serious medical emergency involving injury or illness. However, all employees are empowered and encouraged to call 911 if they believe immediate medical assistance is necessary.

If a supervisor observes—or is notified of—signs or symptoms of heat-related illness, they must respond immediately and appropriately, based on the severity of the condition.

Under no circumstances should an affected employee be left alone or sent home without:

- Receiving on-site first aid, or
- Being provided with emergency medical services.

Ensuring the employee's safety is the top priority.

- If a medical emergency exists, call 911.
- If available, utilize two-way radio, CB system, or telephone.
- All employees should be knowledgeable concerning the qualified first aid person(s), the first aid requirements, and emergency medical plan.

CONCLUSION

All employees are responsible for protecting themselves from heat illness by adhering to the provisions of this Heat illness Prevention Plan.

The County shall provide a copy of this Prevention Plan to all employees. Departments shall ensure that annual training is provided for all employees.

Supervisors shall ensure that employees frequently communicate with them when work is performed in hot conditions.

Completion of employee training will be documented by managers/supervisors and maintained in personnel files. Will be available upon request by Oregon OSHA. Such records will contain the name of each employee trained, training dates and the training provided.

Employees noting any signs or symptoms of heat illness should immediately report their condition to their supervisor, or in the absence of their supervisor, to another employee, so appropriate action can be taken. The most important thing employees can do is look out for one another. Heat illnesses can come on very quickly and workers often don't realize what's happening until it's too late.

Employees may download and watch a short video provided on the Heat Stress app Oregon OSHA website: <https://osha.oregon.gov/media/videos-online/Pages/heat-safety-app-tutorial.aspx>.

Other trainings will be sent to employees via the County's HR training program.