



HEAT ILLNESS PREVENTION POLICY

1195 SE Kemper Way Madras, OR 97741 | ph: 541-475-4253 | macrecdistrict.com

Section 1. Purpose

The purpose of this policy is to protect our employees from the hazards of hot working environments. This policy establishes safe work practices that will prevent both indoor and outdoor heat-related illnesses among employees of the MACRD. It will be utilized for training with all employees (new employee orientation and annual refreshers). All employees potentially exposed to hot working environments are subject to this plan.

Section 2. Background

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 risk factors are present. Examples include working in a hot environment without adequate access to water for rehydration, working in protective gear that does not allow air circulation across the skin, or working where the humidity is too high for sweat to evaporate.

Section 3. Risk Factors

The following are environmental risk factors for heat illness (see heat index on Page 4):

- 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;
- Physical effort needed for the work;
- Use of nonbreathable protective clothing and other personal protective equipment.

The following are personal risk factors for heat illness:

- Lack of acclimation to warmer temperatures;



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- Poor general health;
- Dehydration;
- Alcohol consumption;
- Caffeine consumption;
- Previous heat-related illness;
- 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.

Section 4. Heat Related Illnesses

Heat rash is the most common health problem in hot work environments. It is caused by sweating and looks like a red cluster of pimples or small blisters. Heat rash usually appears on parts of the body that overlap or rub other parts of the body, such as in the groin area, under the arms or breasts, and in knee or elbow creases. If an employee has symptoms of heat rash, provide a cooler, less humid work environment, if possible. Advise the employee to keep the area dry and not to use ointments and creams that make the skin warm or moist, which can make the rash worse.

Heat exhaustion can best be prevented by being aware of one's physical limits in hazardous environment on hot, humid days. The most important factor is to drink enough clear fluids (especially water, not alcohol or caffeine) to replace those lost to perspiration.

Signs and symptoms of heat exhaustion typically include:

- Profuse sweating
- Weakness and fatigue
- Nausea and vomiting



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- 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.

When you recognize heat exhaustion symptoms in an employee, you must intervene; stop the activity, and move the employee to a cooler environment. Cooling off and rehydrating with water (or electrolyte- replacing sports drinks) is the cornerstone of treatment for heat exhaustion. If the employee resumes work before their core temperature returns to normal levels, symptoms may quickly return.

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

Heat stroke requires an immediate emergency medical response. The person may stop sweating, become confused or lethargic, and may even have a seizure! The internal body temperature may exceed 106 degrees F.

Signs and symptoms of heat stroke typically include:

- Absence of sweating;
- Dry skin;
- Agitation or strange behavior;
- Dizziness, disorientation, or lethargy;
- Seizures or signs that mimic those of a heart attack.

Ensure that emergency responders are summoned immediately if heat stroke is suspected. While waiting for emergency responders to arrive, cool the employee; move the employee to an air-conditioned environment or a cool, shady area; and help



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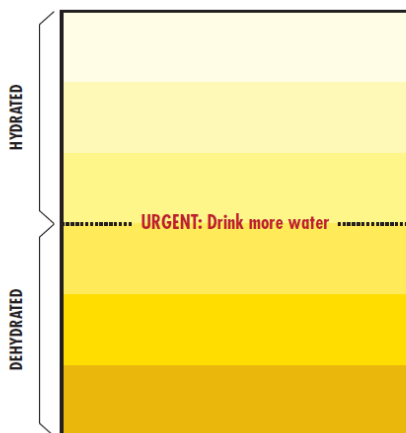
the employee remove any unnecessary clothing. Do not leave the employee unattended. Heat stroke requires immediate medical attention to prevent permanent damage to the brain and other vital organs that can result in death.

Heat index	Risk level	Protective measure
Less than 91°F (33°C)	Lower (caution)	Basic health and safety planning
91°F to 103°F (33°C to 39°C)	Moderate	Implement precautions and heighten awareness
103°F to 115°F (39°C to 46°C)	High	Additional precautions to protect workers
Greater than 115°F (46°C)	Very high to extreme	Even more aggressive protective measures

Section 5. Preventing Heat-Related Illnesses

- Gradually increase workloads and allow more frequent breaks during the first week of work so that employees 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.

Urine Color Chart
 Are you hydrated?



- Encourage employees to frequently drink small amounts of water before they become thirsty to stay hydrated. During moderate activity, in moderately hot conditions, employees should drink about 8 ounces of liquid every 15 to 20 minutes. Employees can monitor their hydration with a urine chart. Urine should be clear or slightly colored; dark urine is a warning sign! See urine color chart.



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- Encourage employees to 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.
- Provide a buddy system where employees encourage each other to drink water, use shade to stay cool, and to watch each other for symptoms of heat-related illness.
- Educate employees 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.
- Ensure employees are aware of the signs of heat-related illnesses and encourage them to report immediately they or their co-workers 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.
- Provide shade or cool areas for breaks.

The MACRD is serious about preventing heat-related illnesses, so we have adopted the following best practices:

Cold water is available in the break room at the MAC for all staff.

Airconditioned Rest and Recovery Area is available in the MAC community rooms. If the rooms are being used for programming or rentals, staff is required to be quiet and respectful while using the rest and recovery area.

Water bottles must be kept at the lifeguard chair while on duty and a deck supervisor alerted if a water refill is required mid-rotation.



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Bathing suits are encouraged for all employees to wear during moderate to extreme heat events, with frequent dips into the pools to cool off during their shift (for both lifeguard and non-lifeguard staff).

Section 6. Responsibilities

All employees are responsible for protecting themselves from heat illnesses by following these guidelines for prevention and immediately reporting any signs or symptoms to his or her supervisor.

Hiring supervisors are responsible for conducting initial training with new employees and for the annual refresher training.

The executive director is responsible for administering the provisions of this plan.

Section 7. Heat Index

		Relative Humidity (%)																			
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
80	77	78	78	79	79	79	80	80	80	81	81	82	82	83	84	84	85	86	86	87	87
81	78	79	79	79	80	80	81	81	81	82	82	83	84	84	85	86	86	87	88	90	91
82	79	79	80	80	80	80	81	81	82	83	84	84	85	86	88	89	90	91	93	95	
83	79	80	80	81	81	81	82	82	83	84	85	86	87	88	90	91	93	95	97	99	
84	80	81	81	81	82	82	83	83	84	85	86	88	89	90	92	94	96	98	100	103	
85	81	81	82	82	82	83	84	84	85	86	88	89	91	93	95	97	99	102	104	107	
86	81	82	83	83	83	84	85	85	87	88	89	91	93	95	97	100	102	105	108	112	
87	82	83	83	84	84	85	86	87	88	89	91	93	95	98	100	103	106	109	113	116	
88	83	84	84	85	85	86	87	88	89	91	93	95	98	100	103	106	110	113	117	121	
89	84	84	85	85	86	87	88	89	91	93	95	97	100	103	106	110	113	117	122		
90	84	85	86	86	87	88	89	91	92	95	97	100	103	106	109	113	117	122	127		
91	85	86	87	87	88	89	90	92	94	97	99	102	105	109	113	117	122	126	132		
92	86	87	88	88	89	90	92	94	96	99	101	105	108	112	116	121	126	131			
93	87	88	89	89	90	92	93	95	98	101	104	107	111	116	120	125	130	136			
94	87	89	90	90	91	93	95	97	100	103	106	110	114	119	124	129	135	141			
95	88	89	91	91	93	94	96	99	102	105	109	113	118	123	128	134	140				
96	89	90	92	93	94	96	98	101	104	108	112	116	121	126	132	138	145				
97	90	91	93	94	95	97	100	103	106	110	114	119	125	130	136	143	150				
98	91	92	94	95	97	99	102	105	109	113	117	123	128	134	141	148					
99	92	93	95	96	98	101	104	107	111	115	120	126	132	138	145	153					
100	93	94	96	97	100	102	106	109	114	118	124	129	136	143	150	158					
101	93	95	97	99	101	104	108	112	116	121	127	133	140	147	155						
102	94	96	98	100	103	106	110	114	119	124	130	137	144	152	160						
103	95	97	99	101	104	108	112	116	122	127	134	141	148	157	165						
104	96	98	100	103	106	110	114	119	124	131	137	145	153	161							
105	97	99	102	104	108	112	116	121	127	134	141	149	157	166							
106	98	100	103	106	109	114	119	124	130	137	145	153	162	172							
107	99	101	104	107	111	116	121	127	134	141	149	157	167								
108	100	102	105	109	113	118	123	130	137	144	153	162	172								
109	100	103	107	110	115	120	126	133	140	148	157	167	177								
110	101	104	108	112	117	122	129	136	143	152	161	171									
111	102	106	109	114	119	125	131	139	147	156	166	176									
112	104	107	111	115	121	127	134	142	150	160	170	181									
113	104	108	112	117	123	129	137	145	154	164	175										
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115	106	110	115	121	127	134	143	152	162	173	184										
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118	108	113	119	126	134	142	152	162	174	186											
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