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Sample top taken from prior mailings

Heat illness can affect anyone.

Stay aware, recognize the signs, take action and Beat the Heat!

Contact your manager or supervisor for more safety information.

National Weather Service (NWS) weather reports can be obtained at https://www.weather.gov/

MyHR

This pamphlet was created to provide information and raise awareness on heat illness prevention. This general information is only to be used as a guide and is not a substitute for professional medical advice, diagnosis, or treatment. In the event of a heat-related emergency, individuals should seek immediate medical attention.

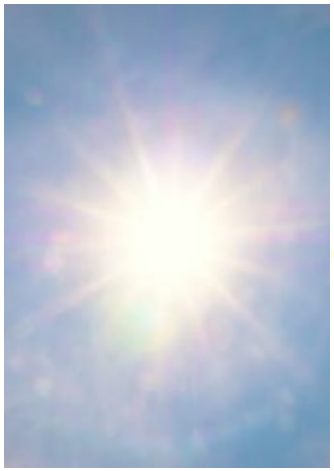
Beat the Heat!
Understanding Heat Illness Prevention

The Heat is On

Navigating Rising Temperatures

As temperatures rise across the United States, it becomes increasingly crucial to raise awareness about navigating these changes. From heat waves to prolonged periods of high temperatures, the impacts of rising mercury levels are clearly visible in communities worldwide, regardless of their location.

This booklet aims to equip readers with essential knowledge and practical guidance to address the challenges posed by rising temperatures and promoting proactive measures for heat illness prevention.



Heat impacts outdoor workers, as well as those laboring in indoor settings where temperatures can also rise significantly, and individuals across various demographics.

Anyone can be vulnerable to the adverse effects of heat. Even certain areas within the same community may experience higher temperatures than others depending on the amount of buildings, pavement and concrete, tree cover, and other geographical features.

These visual aids may be used to assist in identifying common signs of heat-related illness and provide appropriate actions to help guide decisions by employees and supervisors to seek medical attention.

The following Figure is intended to provide specific first aid measures for each condition and should not be implied to reflect any progression in severity. Employees working away from a Postal Service facility should immediately call 911 and then their supervisor, if able, when they experience signs or symptoms of heat stress, as referenced in Figure 2 below. Proper hydration and seeking prompt medical attention should be ensured at any time the below referenced symptoms arise during the course of a workday.

Figure 2

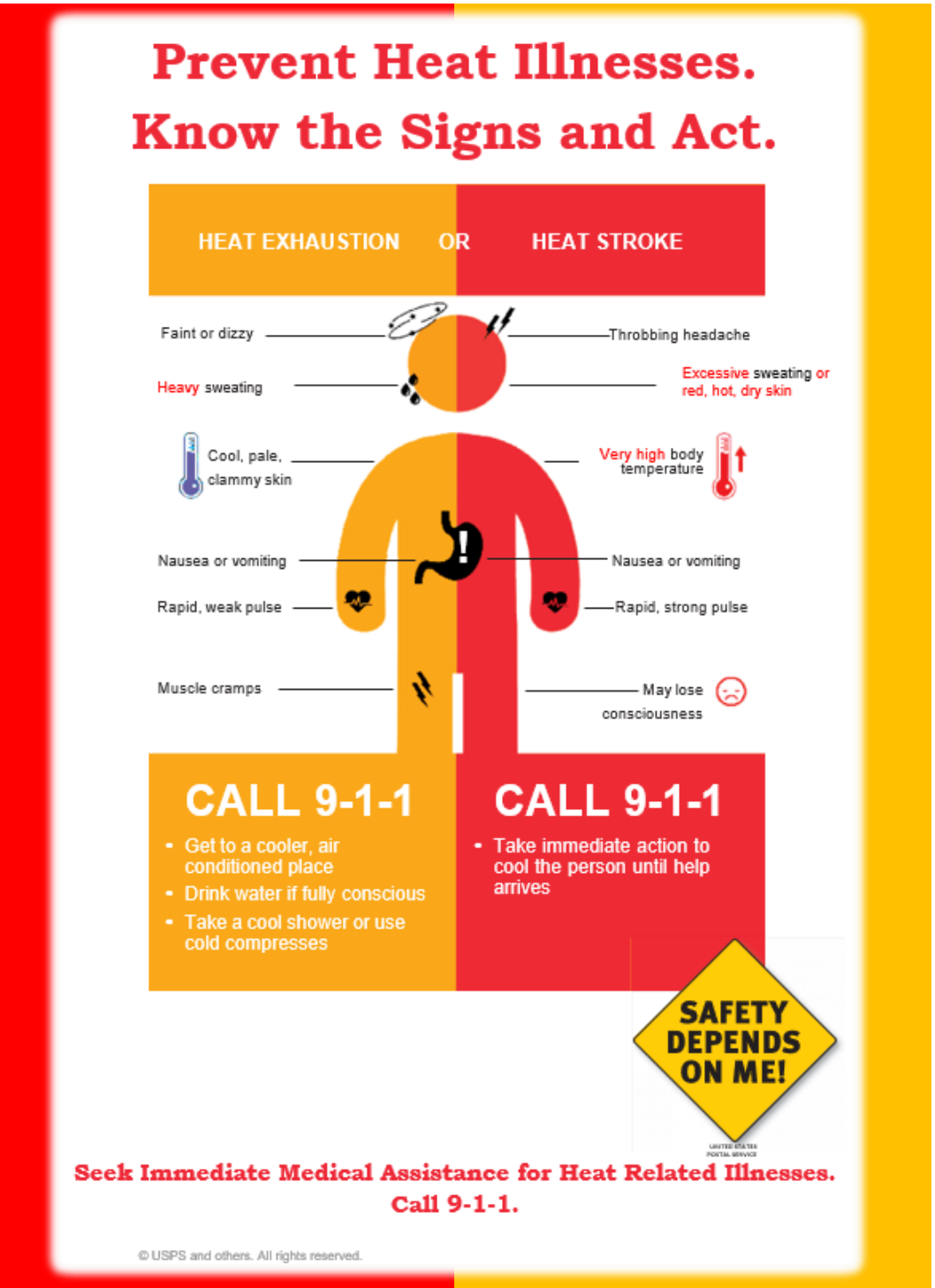
	Symptoms	First Aid*
Heat Stroke	• Confusion • Fainting • Seizures • Excessive sweating or red, hot, dry skin • Very high body temperature	Call 911 While waiting for help: • Worker should rest in a shady, cool area • Loosen clothing, remove outer clothing • Use a fan and place cold packs in armpits, if available • Wet worker with cool water, apply ice packs, cool compresses, or ice, if available • Drink fluids (preferably water) as soon as possible • Stay with worker until help arrives
Heat Exhaustion	• Cool, moist skin • Heavy sweating • Headache • Nausea or vomiting • Dizziness • Light-headedness • Weakness • Thirst • Irritability • Fast heartbeat	Call 911 While waiting for help: • Sit or lie down in a cool, shady area • Drink plenty of water or other cool beverages • Use cool compresses or ice packs, if available • Do not return to work that day
Heat Cramps	• Muscle spasms • Pain • Usually in abdomen arms or legs	• Have worker rest in shady, cool area • Worker should drink water or other cool beverages • Wait a few hours before allowing worker to return to strenuous work • Have worker seek medical attention if cramps don't go away
Heat Rash	• Clusters of red bumps on skin • Often appears on neck, upper chest, folds of skin	• Try to work in a cooler, less humid environment when possible • Keep the affected area dry

*Remember, if you are not a medical professional, use this information as a guide only to help workers in need.
**Before an employee who has been absent due to heat-related illness may return to work; management may request medical documentation clearing the employee to work. ELM §§ 865.1 and 865.3.

When in doubt, do not hesitate to call 911. Employees and supervisors may use personal cell phones and other mobile electronic devices to communicate or to contact 911. As a reminder, for safety reasons, cell phones and other mobile electronic devices should never be used by an employee while driving or operating postal vehicles or equipment.

Monitoring Signs and Symptoms

Visual Aids



Understanding Heat

The Energy Within

In the context of weather, heat refers to the energy that is transferred between the Earth's surface and the atmosphere.

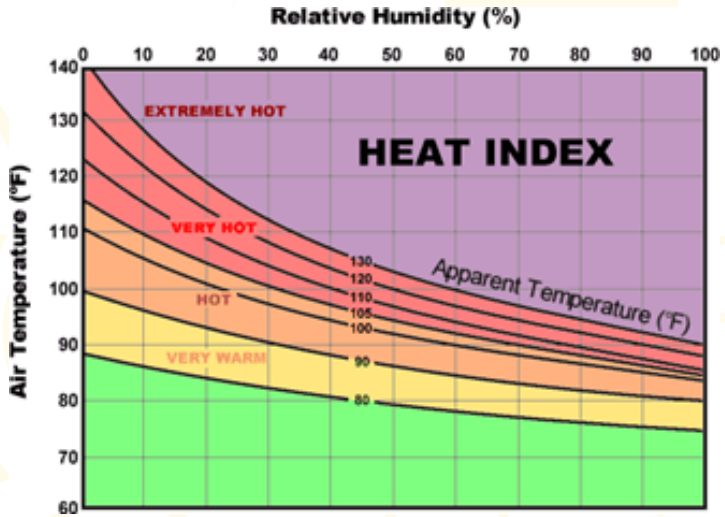
Heat is measured using temperature, which is the degree of hotness or coldness of the atmosphere. Additionally, factors such as humidity, wind speed, and atmospheric pressure contribute to the overall perception of heat and comfort levels.

We've all heard the weatherperson say the actual temperature, and then what the temperature "feels like".

"It ain't the heat, it's the humidity"

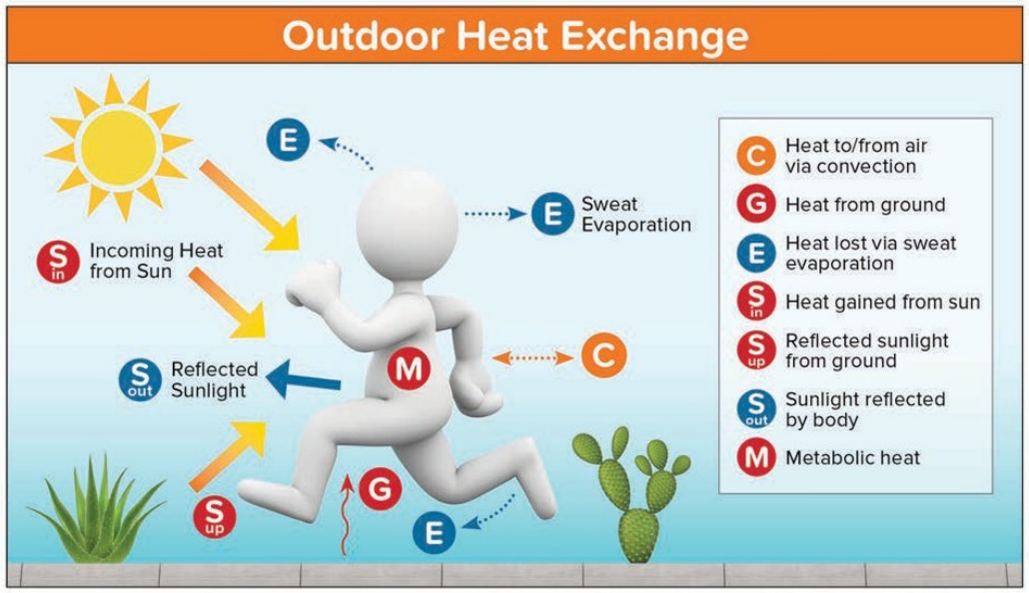
- Yogi Berra

Heat indices, such as the heat index or humidex, combine air temperature and humidity to provide a more accurate measure of how hot it feels to the human body. Monitoring these indices helps individuals take appropriate precautions to prevent heat related illnesses.



Source:: NWS Ft. Worth

How Our Body Reacts



The figure above illustrates all of these different processes at work, from evaporative loss (E) to solar heat gain (S). When the air is very hot (over 95°F), we can gain heat from the air through convection (C). On a hot day, try to minimize the factors shown in red and maximize the factors shown in blue!
Source: City of Phoenix Arizona

Finding the Balance

Our bodies have various mechanisms to react to heat in order to maintain a stable internal temperature, known as homeostasis. This “balancing act” involves a delicate equilibrium between various physiological mechanisms aimed at maintaining a stable internal temperature despite external heat fluctuations. Here's how our bodies react to heat.

Sweating. When the body gets too hot sweat glands are activated and sweat is produced. As the sweat evaporates from the skin’s surface it helps to cool down the body by dissipating heat.

Vasodilation. Blood vessels near the skin’s surface dilate, or widen, in response to heat. This allows more blood to flow near the skin facilitating heat loss through radiation and convection.

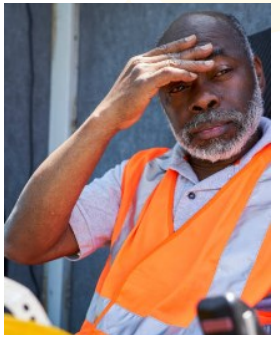
Increase respiration. In hot environments respiration rate may increase as the body tries to expel heat through exhaled air.

Heat dissipation through the skin. The skin plays a crucial role in dissipating heat. When blood reaches the skin’s surface, heat is released to the environment, helping to cool the body.

Understanding Heat Exhaustion and Heat Stroke

Heat exhaustion and heat stroke are both serious conditions caused by prolonged exposure to high temperatures and dehydration.

Heat exhaustion is a precursor to heatstroke and occurs when the body becomes overheated due to prolonged exposure to high temperatures and insufficient hydration.



Signs and symptoms include: Profuse sweating, weakness, nausea, headache, dizziness, and muscle cramps.

Provide first-aid treatment as soon as possible by moving the person to cooler place, give them cool water or sports drink. **Call 911 immediately.**

Heat stroke is a severe and potentially life threatening condition that occurs when the body's temperature regulation system fails, and its core temperature rises to dangerous levels.

Signs and symptoms may include: Confusion, rapid heartbeat, shallow breathing, flushed, hot, red, dry skin, nausea and vomiting and loss of consciousness.

Heat stroke is considered a medical emergency because it can rapidly escalate and cause complications such as seizures, coma, and irreversible damage to vital organs.

Call 911 immediately. Move the person to a cooler place. Cool the person using cool, wet cloths, spraying with cool water, or applying ice packs to the armpits, neck, and back. Use fans to promote evaporation and cooling. Monitor their body temperature and continue cooling efforts until emergency responders arrive.

Do not give fluids to someone who is unconscious or unable to swallow. Handling an individual experiencing heat stroke requires care to prevent injury, especially if they are disoriented, agitated, or unconscious.

All employees are encouraged to take immediate action if they observe another employee exhibiting signs or symptoms of heat-related illness. Employees should err on the side of caution and immediately call 911 whenever an employee complains of or is observed exhibiting signs of heat-related illness and it is determined medical intervention may be necessary.

Awareness and Emergency Response

Heat illness can quickly escalate from discomfort to medical emergencies if not addressed promptly and effectively.

Understanding Heat Rash and Heat Cramps

Heat rash and heat cramps are both heat-related conditions, but they manifest differently and have distinct signs and symptoms.

Heat rash, also known as prickly heat, occurs when sweat ducts become blocked and sweat becomes trapped beneath the skin.

Signs and **symptoms include**: Red bumps or tiny blisters on the skin with a prickling sensation.

Heat rash is the most common problem caused by heat. It primarily affects the skin with red bumps and itching. Heat rash usually recovers on its own once the skin cools down and the sweat ducts are no longer blocked. The affected area should be kept clean and dry, and dusting powder may be used to increase comfort.

Heat cramps are painful muscle contractions that typically occur during or after intense physical activity in hot weather. They are usually the first, and least severe sign, that your body is having problems handing the heat.

Signs and symptoms include: Muscle spasms and pain, usually in the extremities or abdomen.

Heat cramps are often caused by dehydration and an imbalance of electrolytes due to sweating.

You should not rely on your thirst to tell you when to drink water. Instead you should drink water frequently every **15 to 20 minutes** when working in a hot environment.

Heat cramps can be treated by having the victim stop all activity and sit in a cool, dry place. Drink water or a sports drink. Wait for cramps to go away.

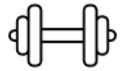
Contact 911 right away if cramps last more than one hour.

Heat and Health

Personal Risk Factors

Several factors may affect your heat tolerance. Recognize your personal risk factors for heat illness so you can take the right precautions.

• **Body fat and fitness.** People who are overweight use more energy to complete tasks, which can reduce your body's ability to cool down and lead to quicker fatigue. Improving fitness can increase energy levels and help your body handle heat more effectively.

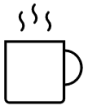


• **Age.** As you age, your sweat glands may not work as well and your body may be less hydrated. Dehydration can occur more easily. Make it a habit to drink water consistently.

• **Prescription medicines.** Certain medications can affect how your body responds to heat including impacts to the ability to perspire. Be aware of how your medication may impact you in the heat and take extra precautions to stay cool and hydrated.

• **Heat sensitivity.** Some people are naturally more sensitive to heat than others and therefore have lower heat tolerance than others. Pay attention to how your body responds to heat.

• **Chronic health conditions.** Some chronic health conditions such as, but not limited to, heart disease, asthma, and diabetes, can increase vulnerability to heat illness. Keep a close eye on your health and any medical issues you have, as they can be worsened by or cause heat-related problems.



• **Caffeine, alcohol, and nicotine.** Substances like caffeine, alcohol, and nicotine can increase your vulnerability to heat. Caffeine and nicotine can speed up your heart rate and promote dehydration. Caffeine and alcohol act as a diuretic, causing your body to lose more water than usual. Reducing or avoiding these substances during hot weather can help your body maintain normal hydration levels and help keep your heart rate steady, improving overall heat tolerance.

• **Nutrition and hydration.** What you eat affects how well your body handles heat. Consuming a heavy or high sodium meal can make it harder for your body to cool down, because it requires more water to process salty foods. Choose lighter, more balanced meals rich in fruits and vegetables to help replenish fluids and essential nutrients. Additionally, maintaining consistent hydration throughout the day and even the night before is crucial for supporting your body's ability to regulate its temperature.

Heat and Health Continued...

Personal Risk Factors

• **Stress levels.** Emotional and physical stress can affect your body's ability to regulate temperature. High stress levels can increase your heart rate and blood pressure, making it more difficult for your body to cool down. Managing stress helps your body regulate temperature more effectively.

• **Sleep and rest.** Being well rested helps your body handle heat. Sleep deprivation can weaken your body's response to heat by reducing energy levels and slowing down recovery from exposure to high temperatures.

Keep a close eye on your health and any medical issues you have, as they can be worsened by or cause heat-related problems.

Stay Safe

Preventative Measures

In managing heat stress and heat illness, **preventative measures** are essential for safeguarding well-being in challenging environmental conditions.

Drink plenty of fluids, especially **water,** throughout the day, even if you're not feeling thirsty. **Be proactive** by hydrating in advance to stay ahead of dehydration.

Choose lightweight, light-colored, and loose-fitting clothes to help your body stay cool.

Use a high Sun Protection Factor (SPF) sunscreen to protect your skin from sunburn. Sunburn can increase your body's heat retention.

Avoid eating heavy food and drink that contain caffeine, alcohol, and excessive sugars.

Use fans and air conditioning, if available, to help move air and lower the indoor temperature.

Maintain good nutrition.

Get adequate sleep.

Take breaks to cool down as needed.

Know the warning signs and symptoms of heat-related illness.

Stay Safe Continued...

Preventative Measures

Personal protective equipment (PPE) can add bulk and weight, which can impact your ability to tolerate heat, if you have to use it to perform your job duties.

Once the appropriate PPE has been selected, consider the duration of work, and the rest periods you should take to be safe.

When taking breaks, remove heat-retaining PPE. This will help your body to cool down.

Proactive Measures

In addition to preventative measures, **proactive steps** can further reduce the risk of heat illness and promote overall well-being.

Stay informed. Stay updated on weather forecasts and heat advisories in your area.

Stay connected. Stay connected with colleagues and your supervisor when working in hot environments, Look out for each other and recognize the signs of heat illness in others.

Educate yourself and others about the signs and symptoms of heat related illnesses.

Recognizing the early warning signs can facilitate prompt intervention and prevent the escalation of the situation. Pay attention to symptoms of heat illness and signs of heat stroke.

By implementing these preventative and proactive measures, individuals can minimize their risk of heat-related illnesses and stay safe during hot weather conditions.

Stay informed, stay hydrated, and stay cool, especially during periods of intense heat.