

# Preventing Heat Stress for Truck Drivers



**TEAMSTERS SAFETY AND HEALTH**

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# Heat Injury & Illness Prevention

## Introduction

- Preventing Heat Stress for Truck Drivers
- 2hr Training Program
- Developed Heat Injury/Illness Prevention Survey
- Factsheets
- Heat Training Policy
- Heat Card
- Learning Object



# Heat Injury & Illness Prevention

## Climate Change

- Heat is the leading weather-related killer, and it is becoming more dangerous as **18 of the last 19 years** were the hottest on record
- Earth's temperature has risen by 0.14° Fahrenheit (0.08° Celsius) per decade since 1880, but the rate of warming since 1981 is more than twice that: 0.32° F (0.18° C) per decade.
- Amid changing climate, the growing frequency and intensity of extreme heat events is increasing the dangers to workers



# Heat Injury & Illness Prevention

## What Trucking Jobs are High Risk for Heat Exposure

- Transportation
  - Mail and package delivery
  - Freight
  - Food
  - Brewery/Soft drink
- Waste Collection
- Railroad Industry





# Heat Injury & Illness Prevention

## Working in Outdoor and Indoor Heat Environments

- Heat stress killed **815 US workers** and seriously injured more than **70,000** workers from 1992 through 2017
- Despite widespread under-reporting, OSHA has reported that **43 workers** died from heat illness in 2019, and at least **2,410 others** suffered serious injuries and illnesses





# Heat Injury & Illness Prevention

## Mail and Package Delivery

- OSHA found that between 2015 and 2021, parcel delivery and mail services had the second-highest rates of workers falling ill due to heat illness. Only the construction industry had more incidents reported to the federal agency.
- This year many workers have become ill and a UPS worker in California died from excessive heat exposure.





# Heat Injury & Illness Prevention

## Mail and Package Delivery

- Workers make frequent stops
- UPS workers are in and out of their delivery truck up to 130 times a day
- Between 2015 and 2021, the Postal Service reported more than **150 heat-related incidents** to OSHA
- **UPS reported 117**



# How Hot UPS Delivery Truck Can Get?



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# Heat Injury & Illness Prevention

## 2hr Training Program

- In-person
- Virtual
- Self-paced



# Heat Injury & Illness Prevention

## MAIN MENU

**Hot Working Environments**

**What Is Heat Stress?**

**Heat Stress Illnesses**

**Work Environmental Evaluation**

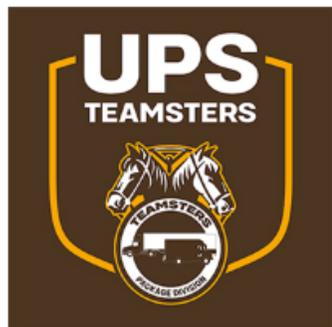
**Control Measures**

**Responding to Heat Stress Emergencies**



# Heat Injury & Illness Prevention

**Developed Heat Injury/Illness Prevention Survey**



## Heat Injury/Illness Questionnaire

STOP: If you have NOT experienced a heat-related injury/illness, please click the link below to take the general information survey.

<https://airtable.com/shrrPtPp3jeZ57izR>

If you have experienced a heat-related injury/illness (HRI) while working for UPS, please tell us about it using the following questionnaire. If you would like to discuss this matter in more detail, please call your local union representative or reach out to the Teamster Safety and Health Department via email at [ibtsafety@teamster.org](mailto:ibtsafety@teamster.org).



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12. If your employer provided heat-related injury/illness (HRI) prevention training were the following topics discussed?

Check all that apply

- I was not trained by UPS on HRI's
- Types of heat-related injuries/illnesses
- How to recognize symptoms of heat illness
- What actions to take if I experience a heat-related emergency
- What actions my manager/ supervisor should take when I report an HRI
- Locations of cool zones along my route to take a preventative cool down...
- Locations at my worksite to take a preventative cool down break.
- None of the above topics were discussed

13. How often do you receive formal training on heat-related injuries/illnesses (HRIs)?

- I have only received PCM instruction on HRIs
- I have received formal training as a new employee only
- I receive formal training or refresher training on HRIs every year
- I only received training on HRIs after I reported a work related injury/illness
- I have not received formal training on HRIs

14. According to UPS's cool solutions program were you offered any of the following?

Click all that apply

If you were not offered any of the following choices, skip this question and move to the next question.

- An acclimatization schedule that helps me adjust to the change in enviro...
- An opportunity to select uniform material that allows air flow to the body

17. If you are a package car driver, does your package car have a working fan?

- Yes
- No
- I'm not a driver

18. If you are a package car driver and requested a fan in your package car did you receive it?

- Yes, I received a fan upon request
- My request was denied, UPS claimed the fan is on back order
- My request for a fan was denied for an unknown reason
- My package car has a working fan
- I did not request a fan in my package car
- I am not a driver

19. If you are a inside worker, does your work area have operable fans?

- Yes
- No
- I am not an inside worker

20. Do you fear retaliation or discipline if you ask for a preventative cool down/rest brake?

- Yes
- No

21. Do you fear discipline/harassment if you report a workplace injury/illness?

- Yes

22. Have you been disciplined/harassed after reporting an injury/illness?

- Yes
- No

23. If you fear discipline or have been disciplined/harassed for reporting an injury/illness, please provide details below.

24. Please provide the date that you suffered a heat-related injury/illness

If you don't remember the date, leave blank and check box in number 25 below.

25. Date of Incident - I don't remember

26. Location of Incident

If you select other, write description below

- Customer location
- Hub
- Package car
- Trailer
- MDC/PDC (doghouse)



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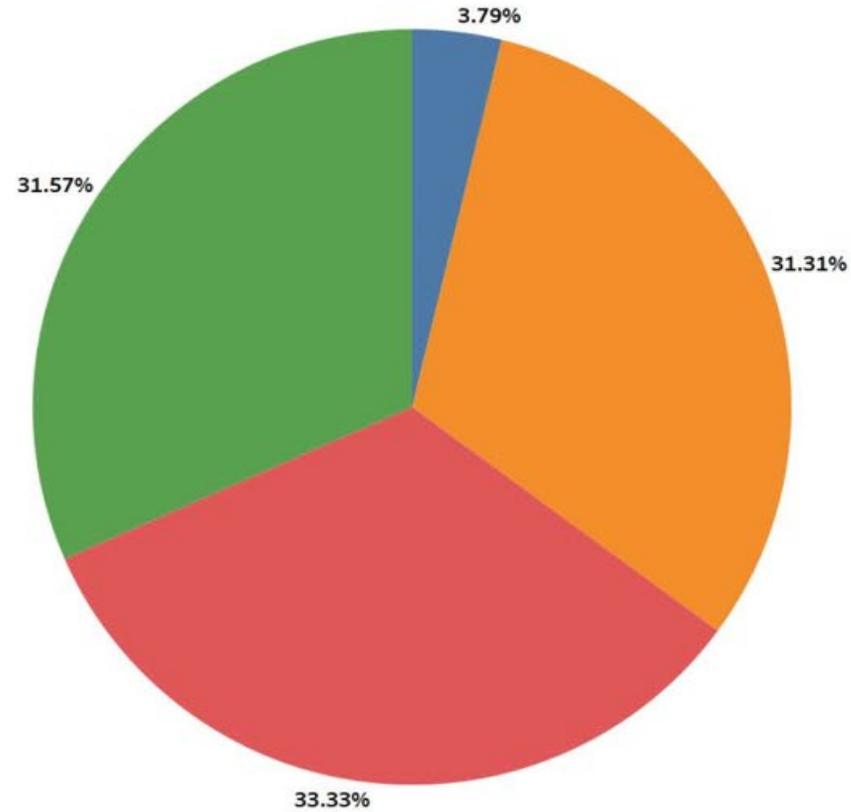
# Question 17: If you are a package car driver, does your package car have a working fan?

If you are a package car driver, does your packag...

- Null
- I'm not a driver
- No
- Yes

% of Total CNT(Work-site location - State)

100.00%

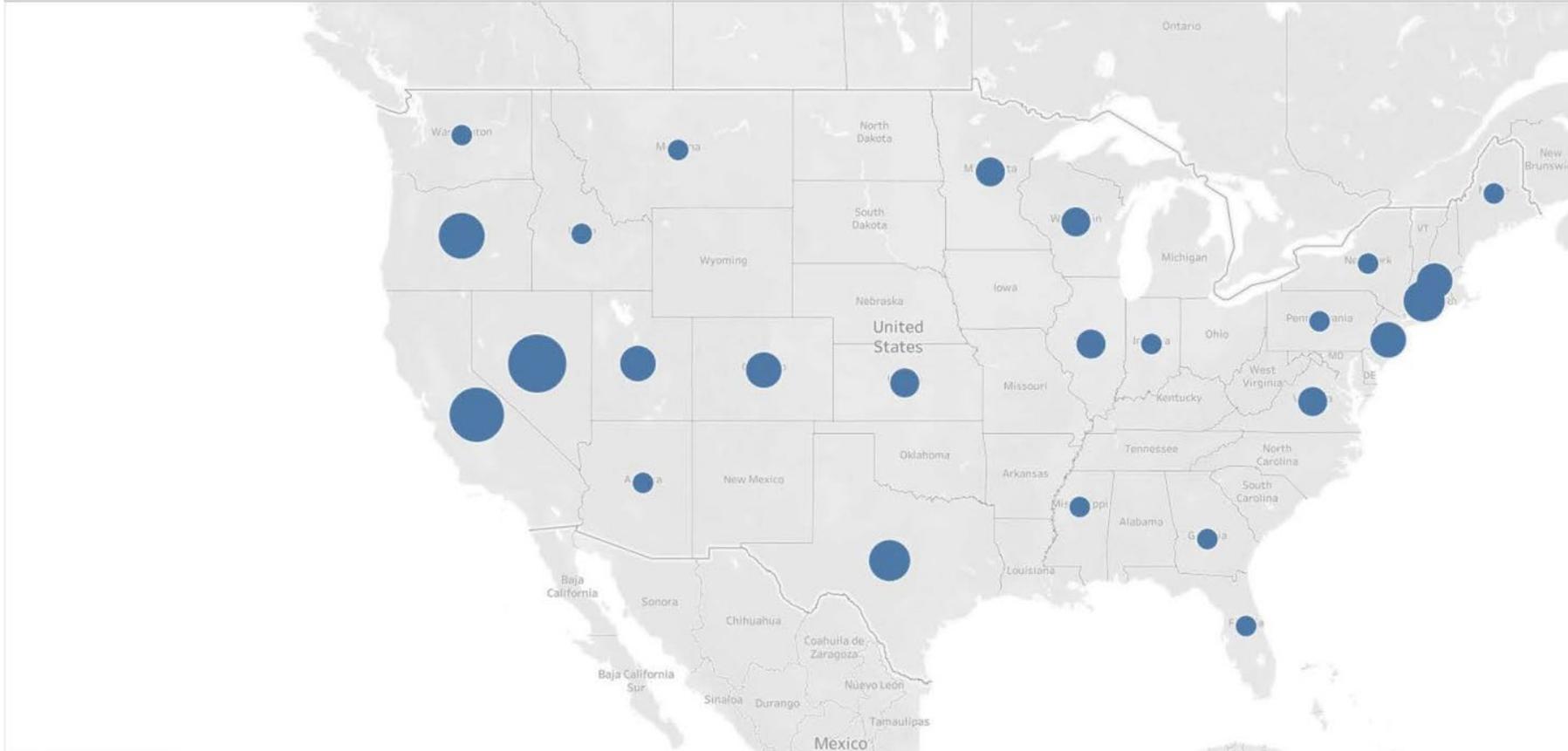


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# Question 17: If you are a package car driver, does your package car have a working fan? No

If you are a package car driver, does your packag...

- (All)
- Null
- I'm not a driver
- No
- Yes



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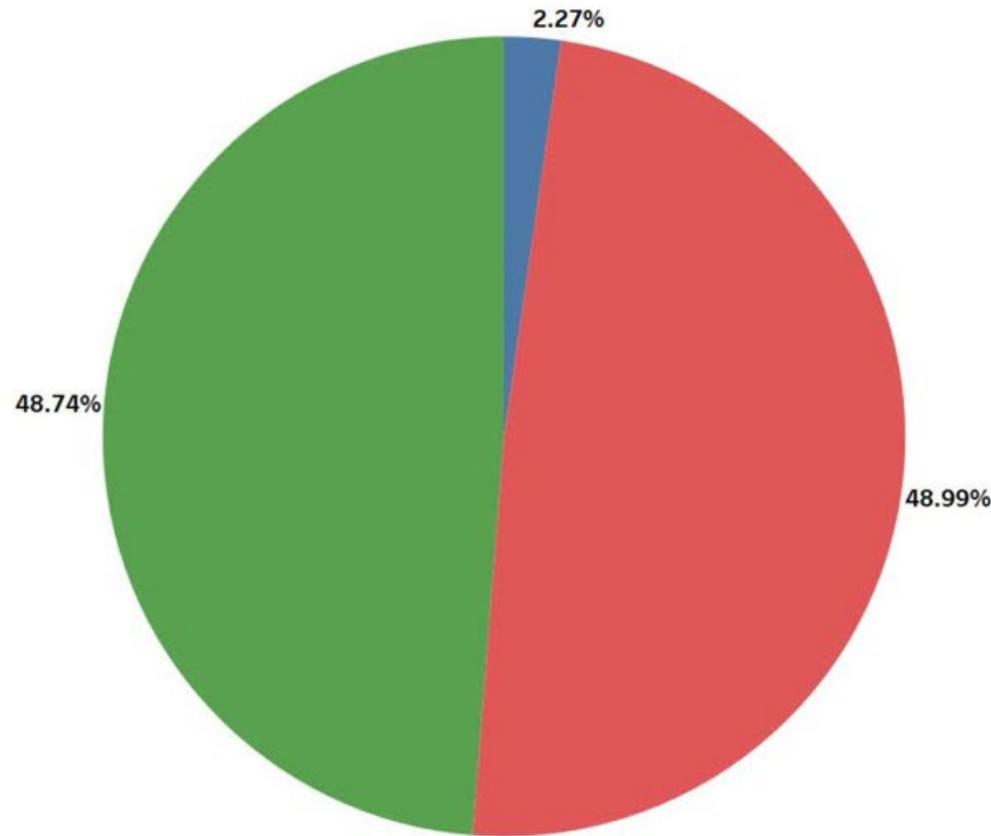
# Question 20: Do you fear retaliation or discipline if you ask for a preventative cool down/rest break?

Do you fear retaliation or discipline if you ask for ...

- NA
- No
- Yes

% of Total CNT(Work-site location - State)

100.00%



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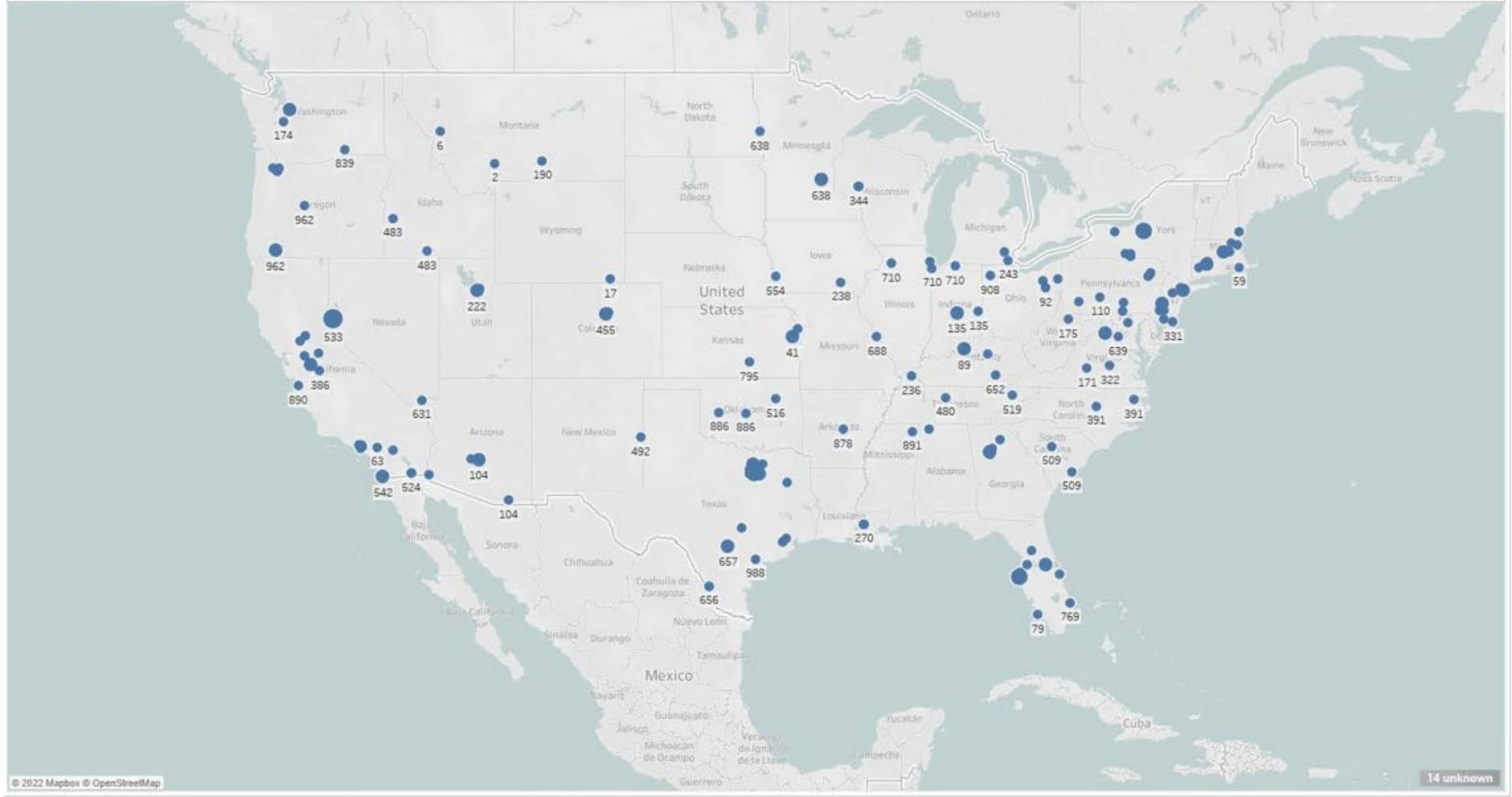
# 20. Do you fear retaliation or discipline if you ask for a preventative cool down/rest break? Yes

Do you fear retaliation ...

- (All)
- Null
- No
- Yes

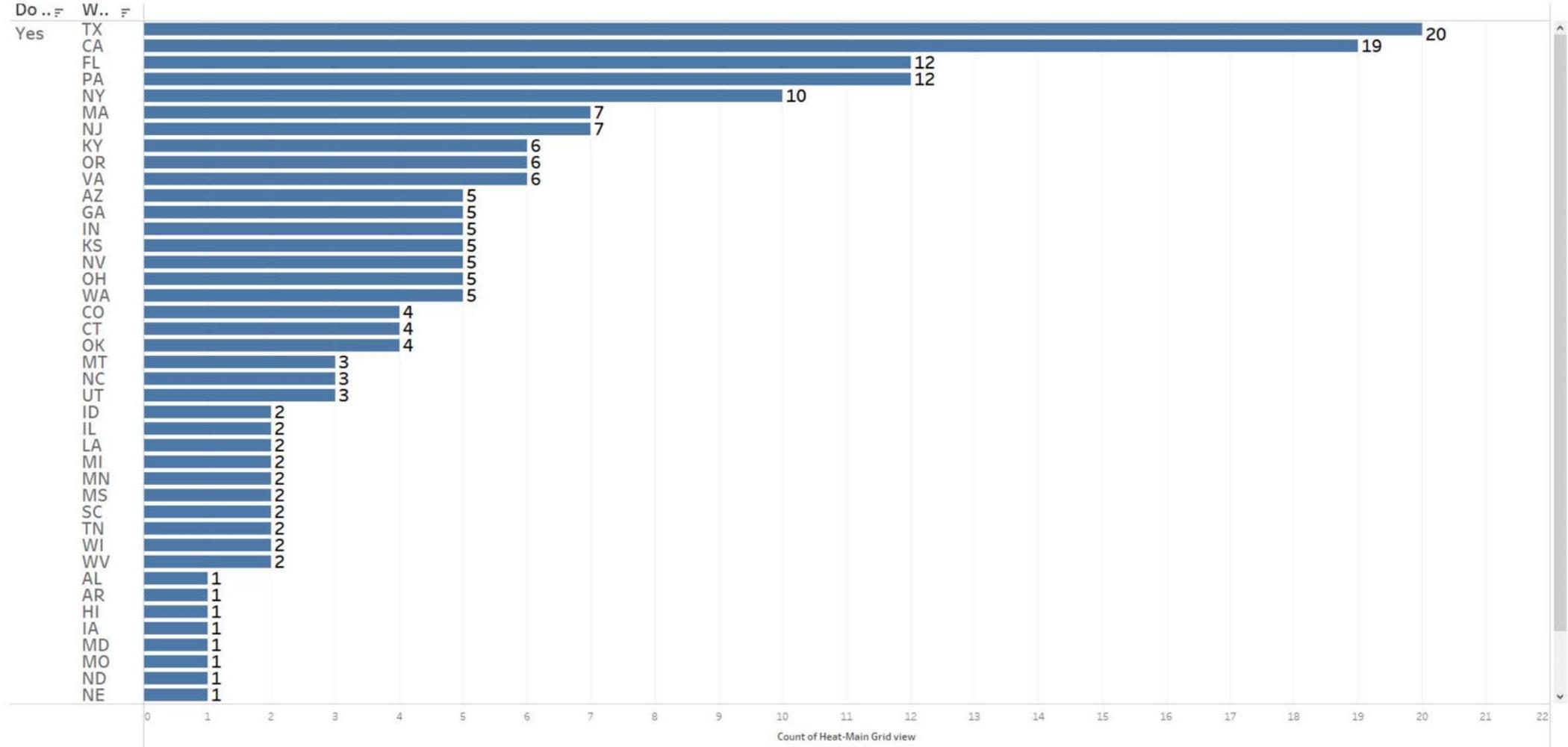
CNT(Heat-Main Grid vi...

- 1
- 4



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## 20. Do you fear retaliation or discipline if you ask for a preventative cool down/rest break? Yes by State



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# Heat Injury & Illness Prevention

## Factsheets



# TEAMSTERS SAFETY & HEALTH FACTS

Safety and Health Department, International Brotherhood of Teamsters  
25 Louisiana Avenue, NW, Washington DC 20001  
202-624-6960 | [www.teamstersafety.org](http://www.teamstersafety.org) | [ibtsafety@teamster.org](mailto:ibtsafety@teamster.org)

## Protecting Workers In Hot Environments

Exposure to excessive heat on the job, both indoors and outdoors, is a recognized hazard faced by many American workers. Occupational heat stress is the combination of metabolic heat<sup>1</sup>, environmental factors (e.g., temperature, humidity), and the type of clothing worn. Many materials, especially impermeable materials used in personal protective equipment (PPE), can trap heat close to the skin and limit or prevent natural cooling such as through sweat evaporation. These factors together can lead to additional heat affecting the body, increasing core body temperature, and putting workers at risk for heat-related illnesses and injuries. These heat-related illnesses and injuries may lead to serious health conditions, disability, or death.

To understand the full impact of heat in the workplace, it is very important to document both its direct and indirect effects. Workers should not be blamed or disciplined for incidents where heat was a significant contributing factor.

This fact sheet discusses heat stress, how it can impact your health and safety at work, how heat-related illnesses can be prevented, and strategies your employer, as well as Teamster members and local unions, can use to address these hazards and minimize your risk of exposure.

### What Causes Heat Stress?

Hazardous heat exposure can occur indoors or outdoors and can occur during any season if the conditions are right, not only during heat waves. Below are seven (7) risk factors which may lead to heat illness:

1. High temperature and humidity, direct sun exposure, no breeze or wind.
2. Heavy physical labor, indoors or outdoors.
3. Not drinking enough water, dehydrated.
4. Waterproof clothing or personal protective equipment (PPE) that are not breathable and prevent or slow the body's ability to lose excess heat.

<sup>1</sup> Metabolic heat is the heat your body creates naturally which can increase during exercise or physical exertion from work.



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## Employers Should Institute Plans During Hot Days to Protect Workers from Heat Illness and Death

An unprecedented heat wave has gripped Western United States, reaching temperatures as high as 117 degrees, placing millions of workers and citizens at grave danger from heat illness and causing or contributing to dozens of deaths. The historically high temperatures have led to extreme drought and a surge in wildfires in California, Arizona, and Oregon, among other states.

According to [OSHA law](#), employers are required to provide a safe and healthy workplace.

An employer with workers exposed to high temperatures should establish a comprehensive **heat illness prevention program** including the following elements:

- Develop and implement [written procedures](#) for heat illness prevention;
- Provide air conditioning, with cooled air or fans, if possible
- Make changes to workload and schedules so heavy work is done during the coolest part of the day and workers can take frequent breaks to rest and drink water;
- Provide access to fresh water and shade and encourage workers to use them for prevention;
- Monitor workers for signs of illness;
- Train all workers and supervisors about heat illness prevention, symptoms and first aid;
- Allow new or returning workers to gradually increase workloads and take more frequent breaks as they acclimatize or build a tolerance for working in the heat; and
- Plan for emergencies.

With regard to heat stress prevention during the COVID-19 pandemic, both OSHA and the National Institute for Occupational Safety and Health (NIOSH) issued special recommendations on the issue. Please refer to [OSHA Guidance on the Use of Cloth Face Coverings while Working Outdoors in Hot and Humid Condition and specific information for employers and workers](#).



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# Heat Injury & Illness Prevention

## Heat Training Policy



# TEAMSTERS SAFETY & HEALTH

Safety and Health Department, International Brotherhood of Teamsters  
25 Louisiana Avenue, NW, Washington DC 20001  
202-624-6960 | www.teamstersafety.org | ibtsafety@teamster.org

## Heat Illness and Injury Prevention Screening of Staff, Students, and Visitors

Effective Date: 7/6/2022

### Purpose

This heat illness and injury prevention plan describe health and safety procedures that must be implemented when conducting indoor and outdoor in-person classroom training. This plan will be reviewed with all instructors, students, or any other parties participating in classroom training activities while in the training facility to reduce the risk of heat-related exposures, illnesses, and injuries. This plan should be made available by request to any participant for review.

### Training

The training facility requires each instructor to perform a daily heat stress evaluation before the training session and review the response plan before any classes or activities commence. This plan will be made available and reviewed daily with all instructors, students, or other parties participating in classroom training activities while in the training facility.

**All students who are or may be exposed to potential heat-related illnesses and injuries will receive training on the following:**

- The environmental and personal risk factors that cause heat-related illnesses and injuries
- The importance of frequent consumption of small quantities of water, up to 4 cups per hour under extreme heat conditions during training activities
- The importance of acclimatization
- The different types of heat illness and the common signs and symptoms of heat illness
- The importance of immediately reporting to the Instructor symptoms or signs of heat illness
- The Instructor's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary
- Procedures for contacting emergency medical services and, if necessary, for transporting students to a point where an emergency medical service provider can reach them



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### Provision of Water

All instructors, students, or any other parties participating in classroom training activities while in the training facility shall have access to potable water.

### Access to Shade

All instructors, students, or any other parties participating in classroom training activities shall be provided access to an area with shade that is either an open-air structure or a structure supplied with mechanical ventilation or cooling. Such access to shade shall be permitted at all times. Shade areas can include trees, buildings, canopies, lean-tos, or other partial and/or temporary structures that are either ventilated or open to air movement. The interior of cars or trucks is not considered shade unless the vehicles are air-conditioned or kept from heating up in the sun in some other way.

### Heat Illnesses and Injuries

#### Heat Rash (Prickly Heat)

##### Symptoms:

- Red cluster of pimples or small blisters, usually on the neck, upper chest, groin, under breasts, and in elbow creases
- Extensive areas of skin that do not sweat upon heat exposure but present a gooseflesh appearance that subsides in cool environments

##### Control Measures

- A cooler and less humid work environment is the best treatment
- Keep the rash area dry
- Powder can be applied to increase comfort

Heat rashes typically disappear in a few days after exposure. If the skin is not cleaned frequently enough, the rash may become infected.

#### Heat Cramps

##### Symptoms:

- Muscle cramps,
- Pain or spasms in the abdomen, arms, or legs



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#### Control Measures

- Drink fluids every 15 to 20 minutes and eat a snack or sports drink
- Avoid salt tablets
- Get medical help if the person has heart problems, is on a low sodium diet, or if cramps do not subside within 1 hour

#### Heat Exhaustion

##### Symptoms:

Feeling worn-out, headache, nausea, dizziness/faint, weakness, irritability, confusion, thirst, heavy sweating, decreased urine output, elevated body temperature greater than 100.4 °F

#### Control Measures

- Call for medical help or take the student to a health facility for evaluation and treatment
- Stay with the student until help arrives
- Remove student from the hot area and give liquids to drink
- Remove unnecessary clothing, including shoes and socks
- Cool the student with water, cold compresses to the neck, neck, and face, an ice bath, or fans
- Encourage frequent sips of cool water

#### Help the victim to cool off by:

- Resting in a cool place
- Providing cool drinking water
- Removing unnecessary clothing
- Loosening clothing
- Showering or sponging with cool water

It takes approximately 30 minutes to cool the body down once a student becomes overheated and suffers heat exhaustion.

#### Heat Stroke

Heat stroke occurs when the body can no longer cool itself, and body temperature rises to critical levels.

##### Symptoms:

- Confusion, altered mental state, slurred speech, loss of consciousness, and seizures
- Hot, dry skin or profuse sweating or may stop sweating
- Very high body temperatures, fatal if treatment delayed
- The body's temperature-regulating system fails, and body temperature rises to critical levels (greater than 104°F)
- The most serious heat-related health problem can result in death



#### Control Measures

- This is an emergency! **Call for emergency care immediately!**
- Move student to a shady, cool area, and remove outer clothing
- Cool student with water, cold compresses, an ice bath, or fans
- Circulate air around the student to speed cooling
- Place cold, wet cloths or ice on the head, neck, armpits, and groin
- Stay with the student until emergency medical services arrive

#### Do not give anything by mouth to an unconscious victim

#### Safe Work Procedures

##### Instructor Responsibilities

When students are conducting indoor/outdoor dress-out and hands-on activities during class training, instructors are responsible for performing the following duties:

- Familiarizing the students with the policy and protocol
- Give students frequent breaks in a cool area away from heat
- Adjust training practices as necessary when students complain of heat stress
- Oversee heat injury and illness training
- Monitor the workplace to determine when hot conditions arise
- Monitor heat index levels via information from known resources providing local weather or heat index information
- Increase air movement by using fans where possible
- Provide potable water in the required quantities
- Schedule any outdoor training activities for the cooler part of the day

##### Students

Students are responsible for performing the following:

- Follow instructions and receive training on controlling heat injuries and illnesses
- Be alert to heat illness symptoms in yourself and others
- Determine if any prescription medications you are required to take can increase heat stress
- Wear light, loose-fitting clothing that permits the evaporation of sweat
- Wear light-colored garments that absorb less heat from the sun
- Drink small amounts of water – approximately 1 cup every 15 minutes
- Avoid beverages with caffeine, such as tea or coffee
- Avoid eating hot, heavy meals
- Do not take salt tablets unless prescribed by a physician





**Daily Planning for Hot Weather: Daily Checklist**  
(Complete one time per course)

- Yes  No  Develop a list of hot weather supplies (e.g., water, shade devices, etc.). Estimate quantities that will be needed and decide who will be responsible for obtaining and transporting supplies and ensuring that adequate supplies are available.
- Yes  No  Create an emergency action plan for heat-related illnesses (who will provide first aid and emergency services, if necessary).
- Yes  No  Identify methods to gain real-time access to important weather forecast and advisory information from the National Weather Service and ensure the information is available at outdoor work sites (e.g., laptop computer, cell phone, other internet-ready devices, weather radio).
- Yes  No  Determine how weather information will be used to modify training schedules, increase the number of water and rest breaks, or cease training early if necessary. Communicate to students any change of plans.
- Yes  No  Train students on the risks presented by hot weather, how to identify heat-related illnesses, and the steps that will be taken to reduce the risk.

Date-1:  Time:  Temperature in Fahrenheit  Heat Index in Fahrenheit

Date-2:  Time:  Temperature in Fahrenheit  Heat Index in Fahrenheit

Date-3:  Time:  Temperature in Fahrenheit  Heat Index in Fahrenheit

Date-4:  Time:  Temperature in Fahrenheit  Heat Index in Fahrenheit

Date-5:  Time:  Temperature in Fahrenheit  Heat Index in Fahrenheit

When the heat index is at or above **80°** Fahrenheit - CAUTION STARTS



**Training**

Do students know the:

- Yes  No  Common signs and symptoms of heat-related illness?
- Yes  No  Proper precautions to prevent heat-related illness?
- Yes  No  Importance of acclimatization?
- Yes  No  Importance of drinking water frequently (even when they are not thirsty)?
- Yes  No  Steps to take if someone is having symptoms?

**Providing Water and Protection from the sun during hot weather days**

- Yes  No  Is there plenty of fresh, cool drinking water located as close as possible to the students?
- Yes  No  Are water coolers refilled throughout the day? (Has someone been designated to check and make sure water is not running low?)
- Yes  No  Provide shade or air conditioning during breaks or if the student is recovering from heat illness and injury?

**Emergencies**

- Yes  No  Does everyone know who to notify if there is an emergency?
- Yes  No  Can everyone explain their location if they need to call an ambulance?
- Yes  No  Does everyone know who will provide first aid?

Type Name:

Course name:



# Instructor Training Using Heat Training Policy – 110 Degrees



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# Heat Injury & Illness Prevention

## Heat Card



## Heat Injury **and** Illness Prevention

We provide comprehensive worker safety and health training to our rank-and-file membership and technical and regulatory support to our Local Union affiliates, IBT Trade Divisions & Conferences, and IBT Departments.

[www.teamstersafety.org](http://www.teamstersafety.org)  
202.624.6963



## Protecting Workers from the Effects of Heat

# Water.Rest.Shade

**Providing a SAFE WORKPLACE is ultimately the EMPLOYER'S Responsibility**



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# Heat Injury & Illness Prevention

## Learning Object

Welcome ✓

Know the Warning Signs: Heat Exhaustion & Heat Stroke ✓

HEAT EXHAUSTION: Weakness & Wet Skin

Sample Work/Rest and Water Consumption Table ✓

## Sample Work/Rest and Water Consumption Table

Restart

Step 1 - Workers are...

Unacclimated  Acclimated

Step 2 - The Wet Bulb Globe Temperature Index (°F) range is:

78 - 79.9  80 - 84.9  85 - 87.9  88 - 90  > 90

Step 3 - The type of work is:

Light Work  Moderate Work  Heavy Work



**Low**

**:40min Work** **:20min Rest**



Heat Risk Category		Wet Bulb Globe Temp	Light Work		Moderate Work		Heavy Work	
			Work/Rest	Water Intake (quart/hr)	Work/Rest	Water Intake (quart/hr)	Work/Rest	Water Intake (quart/hr)
No Risk	Unacclimated	78 – 79.9	50/10 min	½	40/20 min	¾	30/30 min	¾
	Acclimated	78 – 79.9	continuous	½	continuous	¾	50/10 min	¾
Low	Unacclimated	80 – 84.9	40/20 min	½	30/30 min	¾	20/40 min	1
	Acclimated	80 – 84.9	continuous	½	50/10 min	¾	40/20 min	1
Moderate	Unacclimated	85 – 87.9	30/30 min	¾	20/40 min	¾	10/50 min	1
	Acclimated	85 – 87.9	continuous	¾	40/20 min	¾	30/30 min	1
High	Unacclimated	88 – 90	20/40 min	¾	10/50 min	¾	avoid	1
	Acclimated	88 – 90	continuous	¾	30/30 min	¾	20/40 min	1
Extreme	Unacclimated	> 90	10/50 min	1	avoid	1	avoid	1
	Acclimated	> 90	50/10 min	1	20/40 min	1	10/50 min	1



< PREV NEXT >

<https://360.articulate.com/review/content/b5ecbcbc-b180-48d9-8a9a-b45844eeb5c2/review>



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# Heat Injury & Illness Prevention

**Thank you**