



# PERSPECTIVES

Heat Illness & What OSHA's National Emphasis Program Means for Employers

Our perspectives feature the viewpoints of our subject matter experts on current topics and emerging trends.

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#### INTRODUCTION

The dangers associated with heat related illness are well understood. However, deaths and serious illnesses continue to occur, and may increase in time, because of increased frequency of extreme temperatures.

To emphasize its concern and take necessary action, the Occupational Safety and Health Administration (OSHA) is implementing an enforcement initiative on heat-related hazards, developing a National Emphasis Program on heat inspections, and launching a rulemaking process to develop a workplace heat standard. In addition, the agency is forming a National Advisory Committee on Occupational Safety and Health Heat Injury and Illness Prevention Work Group to provide better understanding of challenges and to identify and share best practices to protect workers.

#### WHAT DOES THIS MEAN FOR EMPLOYERS?

OSHA Area Directors across the nation will institute the following:

- Prioritize inspections of heat-related complaints, referrals, and employer-reported illnesses and initiate an onsite investigation where possible.
- Instruct compliance safety and health officers, during their travels to job sites, to conduct an intervention (providing the agency's heat poster/wallet card, which discusses the importance of easy access to cool water, cooling areas, and acclimatization) or open an inspection when they observe employees performing strenuous work in hot conditions.
- Expand the scope of other inspections to address heatrelated hazards where worksite conditions or other evidence indicates these hazards may be present.

The first area to consider is embedding sustainability This means OSHA will increase enforcement activities under the GeneralDutyClauseuntilaFederalHeatStandardispromulgated, especially focusing on high-risk industries like construction and other strenuous activities indoors and outdoors.

Employers should evaluate their current programs on heat illness prevention and increase focus on training and recognition of the potential dangers. The program should make it clear as to when supervisors must implement enhanced "high heat" procedures that include:

- Observing individual employees for alertness.
- A mandatory "buddy system" within teams of workers.
- Effective communication with lone workers.
- Cool down rest periods every two hours.
- Performing the most strenuous tasks during the cooler hours of the shift.

### KEY COMPONENTS OF AN EFFECTIVE HEAT ILLNESS PREVENTION PROGRAM

The following components are critical for effectively protecting employees from the harmful effects of exposure to high heat and should be incorporated into an employer's heat illness prevention program:

- 1. Communication of risk factors.
- 2. Information detailing the signs, symptoms, prevention, and treatment of heat related illnesses.
- 3. Engineering and administrative control methods.
- 4. Inclusion of effective heat illness prevention procedures:
  - Emergency response procedures.
  - Acclimatization.
  - High heat procedures.
  - Weather monitoring procedures.

- 5. Training for all affected employees and supervisors which should include the following topics:
  - Environmental and personal risk factors to heat illness.
  - Acclimatization protocol (Heat Stress and Strain Guide ACGIH 2017)
  - The importance of regular hydration throughout the workday.
  - The effects of personal protective clothing such as Tyvek Suits.
  - Work/rest regimen.
  - Shaded break areas such as canopies with tables, chairs, and fans.
  - Skin and head coverings for direct sunlight exposure.

- Importance of employees reporting heat related symptoms.
- The effects of alcohol and other lifestyle factors.
- Self-monitoring techniques such as monitoring pulse rate (Heat Stress and Strain Guide ACGIH – 2017).
- Emergency Response—taking immediate action when a worker appears to be disoriented or confuse

#### RESOURCES

Consider the OSHA-NIOSH Heat Index App as a tool for helping supervisors to recognize when additional preventative precautions should be implemented. This can be downloaded for Apple and Android users. The National Weather Service Heat Index Chart (Figure 1) can also be useful as a visual aid.

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|                       | NWS     | Не | at Ir | ndex   |         | Temperature (°F)  |          |         |          |         |           |          |        |                |         |     |     |
|-----------------------|---------|----|-------|--------|---------|-------------------|----------|---------|----------|---------|-----------|----------|--------|----------------|---------|-----|-----|
|                       |         | 80 | 82    | 84     | 86      | 88                | 90       | 92      | 94       | 96      | 98        | 100      | 102    | 104            | 106     | 108 | 110 |
| Relative Humidity (%) | 40      | 80 | 81    | 83     | 85      | 88                | 91       | 94      | 97       | 101     | 105       | 109      | 114    | 119            | 124     | 130 | 136 |
|                       | 45      | 80 | 82    | 84     | 87      | 89                | 93       | 96      | 100      | 104     | 109       | 114      | 119    | 124            | 130     | 137 |     |
|                       | 50      | 81 | 83    | 85     | 88      | 91                | 95       | 99      | 103      | 108     | 113       | 118      | 124    | 131            | 137     |     |     |
|                       | 55      | 81 | 84    | 86     | 89      | 93                | 97       | 101     | 106      | 112     | 117       | 124      | 130    | 137            |         |     |     |
|                       | 60      | 82 | 84    | 88     | 91      | 95                | 100      | 105     | 110      | 116     | 123       | 129      | 137    |                |         |     |     |
|                       | 65      | 82 | 85    | 89     | 93      | 98                | 103      | 108     | 114      | 121     | 128       | 136      |        |                |         |     |     |
|                       | 70      | 83 | 86    | 90     | 95      | 100               | 105      | 112     | 119      | 126     | 134       |          |        |                |         |     |     |
|                       | 75      | 84 | 88    | 92     | 97      | 103               | 109      | 116     | 124      | 132     |           |          |        |                |         |     |     |
|                       | 80      | 84 | 89    | 94     | 100     | 106               | 113      | 121     | 129      |         |           |          |        |                |         |     |     |
|                       | 85      | 85 | 90    | 96     | 102     | 110               | 117      | 126     | 135      |         |           |          |        |                |         |     |     |
|                       | 90      | 86 | 91    | 98     | 105     | 113               | 122      | 131     |          |         |           |          |        |                |         | no  | AR  |
|                       | 95      | 86 | 93    | 100    | 108     | 117               | 127      |         |          |         |           |          |        |                |         |     | - ) |
|                       | 100     | 87 | 95    | 103    | 112     | 121               | 132      |         |          |         |           |          |        |                |         |     |     |
|                       |         |    | Like  | lihood | d of He | at Dis            | orders   | s with  | Prolo    | nged E  | xposi     | ire or   | Strenu | ious A         | ctivity | ,   |     |
|                       | Caution |    |       |        |         | Extreme Caution   |          |         |          |         | Danger    |          |        | Extreme Danger |         |     |     |
|                       |         |    |       |        | Figui   | r <b>e 1</b> - Th | ne Natio | onal We | eather s | Service | 's heat i | index cl | nart.  |                |         |     |     |
|                       |         |    |       |        |         |                   |          |         |          |         |           |          |        |                |         |     |     |
|                       |         |    |       |        |         |                   |          |         |          |         |           |          |        |                |         |     |     |

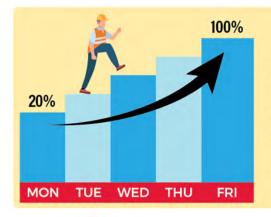
Prevent Heat Illness at Work

Ease into Work. Nearly 3 out of 4 fatalities

from heat illness happen during the first

Build a tolerance to heat by increasing

intensity by 20% each day.



Drink cool water even if you are not thirsty





week of work.

Rest for long enough to recover from the heat



Watch out for each other



Take breaks in a shady or cool area

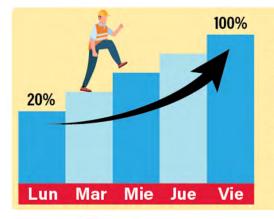


Figure 2 - OSHA's tips for avoiding high heat related illness (English poster).



## Consejos para Prevenir las Enfermedades Relacionadas con el Calor en el Trabajo





Modere su actividad. Casi 3 de cada 4 muertes por el calor ocurren durante la primera semana de trabajo.

Desarrolle una tolerancia al calor aumentando la intensidad en un 20% cada día.



Beba agua fría aun si no tiene sed



Use sombrero y ropa adecuada para el calor



Descanse lo suficiente para recuperarse del calor



Tome descansos bajo la sombra o en un lugar fresco



Esté pendiente a sus compañeros



Chequee verbalmente a los trabajadores usando mascarilla

Figure 3 - OSHA's tips for avoiding high heat related illness (Spanish poster).



## PERSPECTIVES

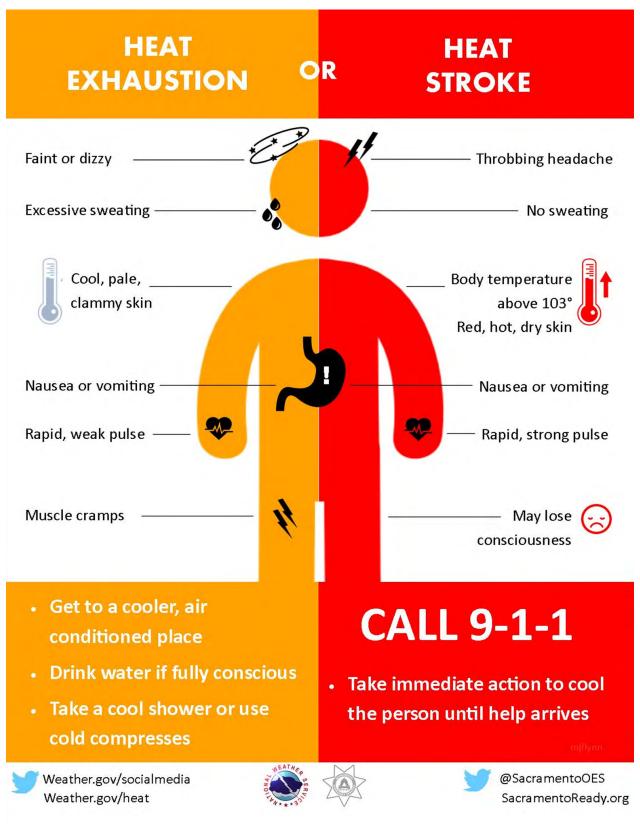


Figure 4 - Signs and symptoms of heat exhaustion and heat stroke (via Weather.gov).



#### CONCLUSION

It is important for employers to understand that heat related illnesses are currently vastly underreported, and, often, those individuals whose heat illnesses are reported were not aware of the signs and symptoms of heat stress.

Take advantage of this National Emphasis Program and use the appropriate resources to revisit and update or improve your company or organization's existing Heat Illness Prevention Plan where applicable. If you have any questions or concerns, please contact <u>safety@jsheld.com</u>.

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