



SAFETY ADVISOR

MAY 2024

Preparations for Working in Hot Weather

By Keith Myhre

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Whichever part of Florida you live, work, or play, one thing is for sure, the summer has arrived. So, it is time again to review the importance of preparing for working in hot weather. There are many resources available to guide workers ahead of time. In the following pages you will find the “NIOSH Risk Factors for Heat Stress.” A sunny, clear sky is not required to quickly disable a person. An overcast, humid day can be just as tough on individuals who failed to hydrate, are not acclimated to hot, humid weather, or working around hot equipment or pavement. Failing to prepare for working outdoors can result in a variety of heat-related illnesses. Some of which can lead to a life-threatening emergency! *When working outdoors, plan for the heat **FIRST**.*



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- *Working in the Heat*
- *Heat Stress Risk Factors*
- *National Electrical Safety Month*
- *Motorcycle Safety Awareness Month*
- *2024 Safety Summit*
- *Did You Know: Hand Protection*



HEAT STRESS

Risk Factors

Workers should be aware of the many factors that can impact the risk of heat illness.

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Environment

- High temperatures, especially with high humidity, which makes sweating less effective
- Direct sun exposure
- Lack of wind or breeze to cool the body; however, when ambient conditions are higher than body temperature, warm airflow can actually *increase* heat gain
- Proximity to engines or other hot equipment



Activities

- High exertion
- Not enough rest breaks
- Repeated strenuous days in the heat
- High motivation to push through discomfort from heat strain



Photo by NIOSH

No Acclimatization

- New employees
- Experienced employees returning from time away from the heat
- Acclimatized workers who experience a sudden change in worksite temperature, such as heat waves or mining in a new area



Medications

- Heat tolerance can be affected by medications taken for
- cold, allergies, and congestion
 - muscle spasms
 - blood pressure
 - urine production (diuretics)
 - high blood pressure
 - diarrhea
 - dizziness/vertigo
 - psychosis
 - depression



Dehydration

- One of the most important risk factors



Prior Heat Illness

- Increases the risk of heat illness in the future



Other Factors

- Age over 60
- Non-breathable clothing or personal protective equipment
- Alcohol use in the past 24 hours

Health Conditions

- Short-term illnesses, such as diarrhea, vomiting, or respiratory infections
- Chronic conditions, such as diabetes and heart disease
- Being overweight or obese
- Poor physical fitness



A worker may be affected by many risk factors at the same time. Talk to a healthcare provider about your personal risk factors.

HEAT STRESS Risk Factors

Points to Remember

- **Acclimatization is critical**

Lack of acclimatization is a major factor in heat-related deaths on the job

- **Hydration is critical**

Dehydration greatly increases the risk of heat illness

- **A recent illness can temporarily lower your heat tolerance**

- **Be aware of other personal risk factors for heat illness**

Prior heat illness

Certain medications

Certain health conditions

Alcohol use within 24 hours of working in heat

Case showing hazards of heat illness even in acclimatized workers

A 27-year-old employee with two years' mining experience was coming to the end of a 12-hour shift at a mill in Arizona when he experienced muscle cramps and vomiting from dehydration. Although he did not lose consciousness, he missed two days of work due to the incident. The employee had been taking medication for high blood pressure.

Lessons Learned

Young, healthy, and experienced—anyone can get heat illness! This incident may have been related to the employee's high blood pressure medication. Multiple factors together, such as certain medications, a recent illness, or repeated strenuous days in the heat, can increase the risk for heat illness.



Photo by ©Thinkstock

CONSTRUCTION SAFETY

TRUCK DRIVERS, HEAVY ELECTRICAL SAFETY

electrical **safety**
FOUNDATION



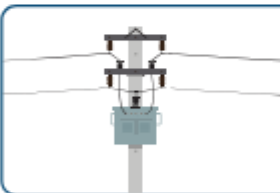
According to the Occupational Safety and Health Administration, **truck drivers of heavy trucks have a high number of workplace electrical fatalities**. A total of **76%** of these fatalities occurred from **contact with overhead power lines**. 70% of all worker electrical fatalities occur in non-electrical occupations.



76% of truck drivers, heavy workplace electrical fatalities occurred from **contact with overhead power lines**.



Keep raised truck beds at least **10 feet** away from all power lines.



Locate and identify **utilities**, such as overhead power lines and underground wires, **before starting work**.



Look for **overhead power lines** when operating any equipment.



Always use **ground-fault protection**.



Do not operate **portable electric tools** unless grounded or double insulated.

Voltage	Safe Distance
500 Kv – 800 Kv	19 – 24 Ft
230 Kv – 362 Kv	13 – 16 Ft
41.1 Kv – 169 Kv	10 – 12 Ft
<50 v – 46 Kv	10 Ft

Know and maintain **safe distances** from power lines.



Be aware of **energized equipment or parts near you**. Many fatalities occur from workers **accidentally** coming in contact with energized equipment or parts near them.

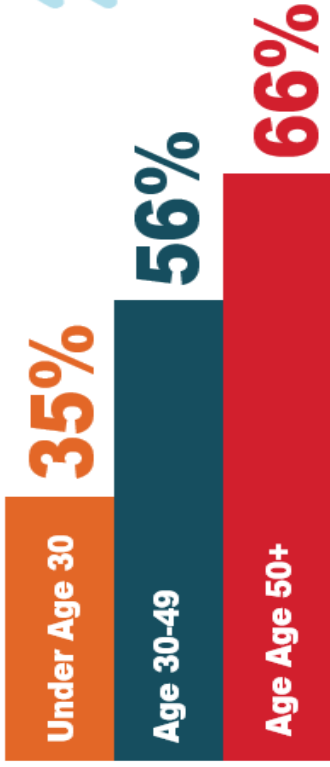
DID YOU KNOW?

Wearing the right helmet makes a safety difference!

66% of Florida riders ages 50+ involved in fatal motorcycle crashes were **not wearing** USDOT-compliant helmets.*



**RIDER AGE GROUPS USING
NON-COMPLIANT HELMETS**



**Scan QR Code to
find your perfect
(and safe) fit!**



* Sourced from Florida crash data between 2015 and 2019.

MAY'S MANGO RECIPE

RECIPES FOR THE ROAD — SUMMER SERIES FLORIDA AVOCADO AND MANGO SALAD

INGREDIENTS (SERVES 4)

- 1 cup Florida avocado, diced large
- 1 cup Florida mango, diced large
- 1 cup Florida cucumber, sliced large
- 8 ounces Florida bib lettuce, hand torn
- 1/2 lime, juiced
- 1 teaspoon fresh garlic, minced
- 1 pinch crushed red pepper flakes (if desired for heat)
- 1 teaspoon sesame seed mix (black, white and toasted), plus more for garnish
- 1 teaspoon chili-garlic sauce (if desired for heat)
- 1/4 cup rice wine vinegar
- 1 teaspoon fresh ginger, minced
- 2 tablespoons low sodium soy sauce
- 1/3 cup vegetable or avocado oil

Sea salt and fresh ground pepper to taste

Pickled red onion

1/4 red onion, peeled and sliced as thin as possible

1/2 cup rice wine vinegar

PREPARATION

In a small mixing bowl, combine the lime juice, garlic, red pepper flakes, sesame seed mix, chili-garlic sauce, ginger, soy sauce and vinegar. Use a whisk to mix ingredients thoroughly. Slowly whisk the vegetable or avocado oil into the rest of the sauce. Taste and adjust the seasoning with salt and pepper. In a medium-sized mixing bowl, add the avocado, mango and cucumber. Add half of the sauce to the fruit and vegetable mixture and carefully stir to coat. Arrange the torn lettuce leaves around the edge of a large serving bowl and add the dressed avocado mixture to the middle. Lightly dress the lettuce leaves with some of the reserved sauce. Garnish the salad with some extra sesame seed mix and pickled red onions. Serve cold.

Use the QR Code for more great **FRESH FROM FLORIDA** recipes. Enjoy this recipe? Post a photo of your creation and tag us **#LetsGetEveryoneHome**



RECIPE CREATED BY:
CHEF JUSTIN TIMINERI



CHOOSE LOCAL AND LOOK FOR THE FRESH FROM FLORIDA LOGO →
WHEN BUYING INGREDIENTS.



It was a great two days in Auburndale at the first Statewide Safety Summit! I had the pleasure to volunteer with many talented staff from around the state. Thank you to my Safety Office cohorts, Frank Jaconetta (D6), John Cibotti (D4), Tracy Berry and Tom Holmes (D1) for their efforts. Congratulations to all our winners, and while it's great to see Equipment Operators representing FDOT at the Southeast Regional Rodeo, I want to thank all of the participants for your commitment to safe operations while working with heavy equipment on a daily basis, in conditions of poor weather, busy roads, and long hours, to complete your work.

See Lance Grace's presentation at: [2024 Safety Summit Recap.pptx](#)

By Keith Myhre, State Safety Office



Did You Know?

Our FDOT Safety and Loss Prevention Manual, contains requirements for employee hand protection. Chemicals, abrasive materials, electrically charged items, petroleum products, cryogenic materials and high heat producing elements, are just a sample of the many materials which should have hand protection matching the hazard. Even high vibrations that create torso fatigue can be protected with gloves. Personal Protective Equipment (PPE), is not just for chemical protection. It is used to minimize the risk of many potential injuries that can impact your hands. Two very important tools you use daily! If you have questions or concerns about hand safety in your workplace, contact your District Safety Managers or Health and Safety Specialists.



The Safety Advisor is distributed electronically to all FDOT staff monthly to promote indoor and outdoor workplace safety and generate an overall awareness of safety in our lives. It is produced monthly by the State Safety Office in Tallahassee, Florida.

For content information or ideas, please email Keith Myhre

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See Department safety information at: <https://www.fdot.gov/safety>

Anonymously report hazards in your workplace: (850) 414-5255

