

OSHA's New Extreme Heat National Emphasis Program: Employer's Legal Obligations

FLORIDA CHAMBER SAFETY COUNCIL

Making Florida Safer, Healthier and More Sustainable

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**Thank you for joining
us, we will begin soon...**

FLORIDA CHAMBER SAFETY COUNCIL

Making Florida Safer, Healthier and More Sustainable

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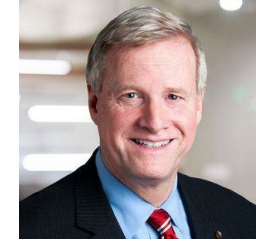
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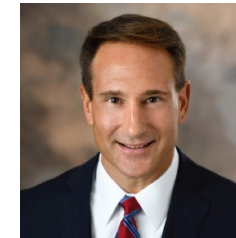
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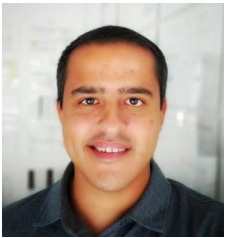
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Safety Training Courses Include, but are not limited to:

- OSHA 10 Hour - Construction Industry
- OSHA 30 Hour – Construction Industry
- OSHA 10 Hour – General Industry
- OSHA 30 Hour – General Industry
- HAZWOPER 8 Hour
- HAZWOPER 24 Hour
- HAZWOPER 40 Hour
- Advanced Safety Certification
- Active Shooter
- Bloodborne Pathogens
- CPR/First AID/AED
- Confined Space Entry
- Crane & Hoist Safety
- Creating a World Class Safety Culture
- Defensive Driver 4HR / 6HR / 8HR
- Electrical Safety
- Fall Protection
- Fire Protection & Prevention
- Flagger
- Hazard Communications
- Hazardous Materials and Waste
- Heat Stress Prevention
- Heavy Equipment Operator Training
- Hearing Protection
- Hand Protection
- Incident Investigation: Root Cause Analysis
- Job Safety Analysis
- Ladder Safety
- Lock Out/Tag Out
- Mobile Elevating Work Platforms - MEWP's (Boom Lift & Scissor Lift)
- OSHA Recordkeeping
- Personal Protective Equipment - PPE
- Powered Industrial Trucks – Forklift Operator
- Principles of Occupational Safety & Health
- Respirable Crystalline Silica
- Respiratory Protection
- Safety Inspections
- Safety Audits
- Safety for Supervisors
- Safety Management Techniques
- Safety Training Methods
- Scaffold Safety
- Silica Respirable Crystalline
- Slips, Trips & Falls Prevention
- Team Safety
- Trenching & Excavation for Competent Person

Four Virtual Safety Courses Offered Through the end of the Summer

Heat Stress Prevention | **August 24**

Virtual via Zoom | .2 CEUs

Fall Protection | **August 26**

Virtual via Zoom | .7 CEUs

Ergonomics: Managing for Results | **September 9**

Virtual via Zoom | .65 CEUs

Trench & Excavation Safety | **September 14**

Virtual via Zoom | .6 CEUs

Learn more and register at FLChamberSafety.com/Learn

Register Today for our Heat Stress Prevention
Virtual Training and Receive **\$15 Off**

Instructed by:



Jason Mozo, J.D.
Executive Director

Florida Chamber Safety Council

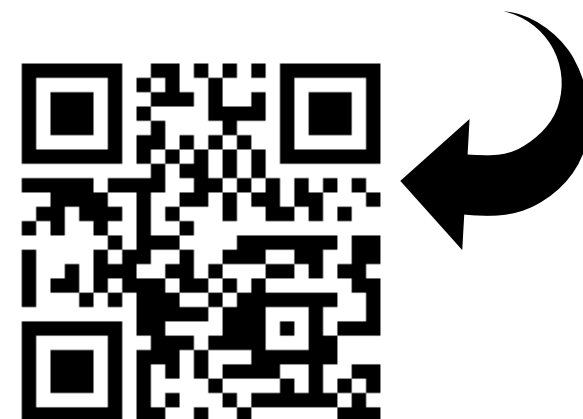
August 24, 2022

10:00am – 12:00pm EDT

~~\$95.00~~ **\$80.00**

Via Zoom

Scan the QR Code to Register



Use Promo Code: **Heat22**

***Participants will earn a Course Completion Certificate and .2 CEUs**



SAVE THE DATE

2023 Southeastern Leadership Conference on Safety, Health + Sustainability

May 10, 2023

Evening Opening Ceremonies & Welcome Reception

May 11 - 12, 2023

Official Conference Program

At Disney's Contemporary Resort



Shop our Growing Collection of Safety Supplies!



Protective Eyewear



Fall Protection Equipment



Worksite Apparel



Inspection Solution, Visitor
Management and Signage



Lockout/Tagout Supplies



Scan QR Code to
Shop Now



- Why Avery Industrial?
- Our Value
- Demand Creation, Sales & Marketing Support
- Core Industrial Product Overview



Why Avery INDUSTRIAL?



- Avery brings decades of experience in developing self-adhesive labels and labeling software to the industrial and “back of house” world (warehouse, commercial facilities, jan-san, hospitality, restaurants, hospitals and more)
- With innovative high-performance solutions, Avery Industrial helps create a safe and compliant environment:

- ✓ Safety & Facility Labeling & ID
- ✓ Print On-Demand with Existing Printer
- ✓ Cloud-based Design Software
- ✓ ANSI/OSHA Templates



Safety Labels & Signs

Asset Tag Labels



Chemical Labels



Safety & Organization



Warehouse and Barcode Labels

- Hazard Communication and Lockout Tagout are the top 5th and 6th violations respectively.
- Avery Industrial products makes it quick and easy to print **customized GHS labels, sign labels, and safety lockout tags on demand and onsite** to communicate a safe and efficient workplace – no high MOQs, no long lead-times.

2021 10 MOST CITED VIOLATIONS*

1 FALL PROTECTION - GENERAL

2 RESPIRATORY PROTECTION

3 LADDERS

4 SCAFFOLDING

5 **HAZARD COMMUNICATION**

6 **LOCKOUT/TAGOUT**

7 FALL PROTECTION - TRAINING

8 PERSONAL PROTECTIVE AND LIFESAVING EQUIPMENT - EYE AND FACE PROTECTION

9 POWERED INDUSTRIAL TRUCKS

10 MACHINE GUARDING

HAZARD COMMUNICATION

STANDARD: 1910, 1200 TOTAL

FISCAL YEAR 2021 RANKING: 5
(1947 VIOLATIONS)

LOCKOUT/TAGOUT

STANDARD: 1910, 147 TOTAL

FISCAL YEAR 2021 RANKING: 6
(1698 VIOLATIONS)

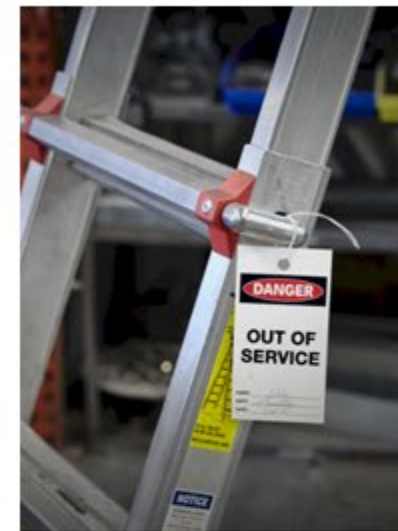
*OSHA's Penalties Increased in 2021

OSHA's new penalty levels rose for the maximum penalty for serious violations to **\$14,502**. The maximum penalty for willful or repeated violations increased to **\$145,027**.

ENVIRONMENT



PRODUCTS



INDUSTRIAL FACILITIES – Environment & Products



ENVIRONMENT

PRODUCTS



INDUSTRIAL TARGET Professionals & Key Markets



Target Professionals



SAFETY & FACILITY MANAGERS

and

- Operations Managers
- EHS (Safety) Managers
- Safety Engineers
- Compliance Managers
- Project or Site Managers
- HR Managers

Sell Points



32 Million

US Workers Potentially Exposed to
Hazardous Chemicals at Work

Every 7 Seconds

A US Worker is Injured on the Job

SUPERIOR

Avery Industrial labels & products
are made out of specialized materials
and adhesives

ONLY AVERY INDUSTRIAL

offers industrial-grade labels & tags
with easy-to-use templates that
empower end-users to quickly print
custom safety and facility labels/tags
onsite – saving time and money

Target End Users & Key Markets

Office/Facility Procurement Manager & Individuals that
purchase labels for the back of house operations:

Facilities / Warehouse / Distribution Centers



Medical & Health Services

Pharmaceutical Distributors



Jan-San

Housekeeping
Maintenance



Hospitality

Food &
Beverage
Distributors



Education

Printable High-Performance Safety and Facility Labels Right from your Desktop Printer



High-Performance

- Specially developed products deliver industrial-grade durability and quality from a standard desktop printer



Cost Savings

- Up to 60x cost savings
- Use existing printers - no need to buy special label printers to get industrial-grade labels



Time Savings

- No long lead times or high minimum quantities
- Print as few or as many as needed



Ease of Use

- Online access to thousands of customizable templates
- Including OSHA-compliant designs and more

Avery Industrial™ Value to you!



Are looking for printable ID and safety solutions *on demand, on-site* where they specialize (restaurants, commercial kitchens, hospitality, warehouses, and facilities management)?

- Secondary Container Labeling
- Indoor (Surface Safe), Outdoor Vinyl Signs
- Asset Tag Labels
- Tags (Preprinted Safety and MRO, UltraDuty Safety Lockout Tag Kits)
- & so much more (Industrial UltraDuty Markers, SDS Binders, Plastic Dividers)

GHS LABELS, SAFETY SIGNAGE, ASSET TAGS, ID LABELS AND MORE

FAST, ONSITE INDUSTRIAL LABELING

EVERY INDUSTRIAL SOLUTIONS

- ✓ Convenient labeling solutions engineered for tough heavy-duty environments
- ✓ Print onsite using your standard laser or inkjet printer
- ✓ Access hundreds of easy-to-use Avery templates and designs online

FOR A COMPLETE LIST OF AVERY INDUSTRIAL PRODUCTS VISIT WWW.AVERY.COM/INDUSTRIAL

AVERY INDUSTRIAL
HERE TO WORK

Core Industrial Product Overview - SAFETY



UltraDuty® GHS Chemical Labels Laser / Inkjet



Preprinted GHS Secondary Container Labels-Handwrite Only



Printable Outdoor Vinyl Safety Sign Labels



Printable Reflective Sign & Barcode Labels



Surface Safe® Removable Label Safety Signs



Printable Hard Hat/Helmet Vinyl Stickers



Printable & Preprinted Safety & Lockout Tags



UltraDuty™ Safety Lockout Tag Kits



SDS Binders, UltraDuty™ SDS Binders w/ Chain, & Binder Bundle

Core Industrial Product Overview - OPERATIONS



PermaTrack™
Durable Asset Tag Labels



Surface Safe® ID
Labels



Easy Align® Durable
Self-Lam ID Labels



Durable ID Labels w/
TrueBlock® Technology



Durable ID Labels w/
Sure Feed™ Technology



Durable Multi-
Surface ID Labels



Marks A Lot® UltraDuty™ Large Chisel
& Bullet Tip Permanent Markers



Magnetic Hanging
Binder Rings



Preprinted Maintenance, Repair &
Operations (MRO) Pack of Tags

Design & Print Online

Create custom safety signs, asset tags, labels and more with our templates and software

✓ HIGH PERFORMANCE MATERIALS

✓ EASY-TO-USE ONLINE SOFTWARE

✓ LOW INVESTMENT & MINIMUMS

PRINT YOUR OWN SAFETY LABELS AND SIGNS



DESIGN

Customize GHS labels, health & safety signs with easy to use templates

PRINT

Print on-site with laser and inkjet printers - no special printer needed

APPLY

Fast and easy way to create and apply safety signs and labels when you need them

HERE TO WORK™

LEARN MORE AT [AVERY.COM/INDUSTRIAL](https://avery.com/industrial)



With Avery Design & Print, creating customized products IS EASY! Just choose a template, modify your product and then print it yourself.



Free templates

Customize one of our professional templates or upload your own designs.



Barcode Generator

Add barcodes or sequential numbers to warehouse and inventory labels or asset tags.



Account Benefits

Quickly save your Avery projects online for easy editing, reordering & sharing from any place at any time.

[Free Industrial Label and Sign Printing Software](#) | [Design & Print Online](#) | [Avery Industrial](#) | [Avery.com](https://avery.com)

Product Value: Avery Industrial GHS Labels



With the Avery GHS Label Solution, you can print ultra durable, chemical-resistant, OSHA-compliant labels on demand using a standard desktop printer and Avery online software.

Competitive GHS Solution



Thermal Transfer Printer
\$1795 - \$3250



GHS Label Creation Application
(App built into GHS Label printers, or purchase more robust GHS design software for \$529)



4"x6" Pre-printed GHS diamond labels
(200/roll)
\$175/roll



6.25"x 200' Ribbon
\$113

Upfront investment: \$2612 - \$4067
Label unit cost: \$0.88 (label only)

Existing Printer
\$0



Pigment Inkjet Printer or Laser Printer
\$150-799 or \$299 - \$1500



Easy-to-Use Avery® Design & Print Software



3.5"x5" Avery UltraDuty® GHS Chemical Labels
(200/pk) \$65

Upfront investment: \$65 (use existing desktop printer)
Label unit cost: \$0.32 (label only)

Product Value: Avery Industrial Removable Safety Signs Labels



With Avery®, the online software including thousands of free templates is included. You can use an economical, affordable desktop printer, and you're able to print durable safety signs on demand that can be removed cleanly when needed.

Competitive DIY Safety Sign Solution



10" Thermal
Printer
\$3,995



Sign
Software
\$599



10" Wide
Roll
\$214-245



4-Color
Ribbon,
200'
\$310

Upfront investment: \$5,149
7" x 10" sign unit cost: \$3.77



Most can
use existing
printer



or



Pigmented Inkjet or
Color Laser Printer
\$150-1500



Avery Design &
Print Online
\$0



15 QTY
7" x 10" Signs
\$40

Upfront investment: \$40
7" x 10" sign unit cost: \$2.74



HERE TO WORK™

All Avery Products are available to purchase through the
Florida Safety Chamber Council.

Please contact:

Jason Mozo – 850-585-1583

or

Konrad Sikora – 850-728-0409

OSHA's New Extreme Heat National Emphasis Program: Employer's Legal Obligations



Edwin G. Foulke
*Former Head of OSHA &
Current Partner Fisher Phillips,
Florida Chamber Safety Council
Advisory Board member*

OVERVIEW

- What is Heat Illness?
- OSHA Guidelines
- Who is affected?
- Identify symptoms
- What to do
- Preventive Methods



HEAT-ILLNESS STATISTICS

OSHA reported heat-related fatalities among outdoor workers (not all workers) 2008 to 2014



Source: OSHA

WHAT IS HEAT ILLNESS?

- The body normally cools itself by sweating. During hot weather, especially with high humidity, sweating isn't enough. Body temperature can rise to dangerous levels if precautions are not taken.
- Heat illnesses range from heat rash and heat cramps to heat exhaustion and heat stroke.
- Heat stroke can result in death and requires **immediate medical attention**.



WHY IS HEAT-ILLNESS PREVENTION IMPORTANT?

#1: THE NUMBER ONE REASON WHY WE ALL NEED TO LOOK AFTER EACH OTHER ON THE JOB

We all deserve to go
home safe to our
family and friends.



OSHA Standards

<p>General Industry 29 CFR 1910 highlights OSHA standards, Federal Registers (rules, proposed rules, and notices), and standard interpretations (official letters of interpretation of the standards) related to heat stress.</p>	<p>If PPE is to be used, a PPE program should be implemented. This program should address the hazards present; the selection, maintenance, and use of PPE; the training of employees; and monitoring of the program to ensure its ongoing effectiveness. PPE is addressed in specific standards for the general industry, shipyard employment, marine terminals, and longshoring.</p>
<p>29 CFR 1910.132 (d) mandates the employer to perform a hazard assessment of the workplace to determine if the use of PPE is necessitated; select and mandate employee use of the necessary PPE; communicate selection of PPE decisions to employees; and select PPE that properly fits the employees.</p>	<p>Twenty-five states, Puerto Rico and the Virgin Islands have OSHA-Approved State Plans and have adopted their own standards and enforcement policies. For the most part, these States adopt standards that are identical to Federal OSHA. However, some States have adopted different standards applicable to this topic or may have different enforcement policies.</p>
<p>OSHA requires the use of personal protective equipment (PPE) to reduce employee exposure to hazards when engineering and administrative controls are not feasible or effective in reducing these exposures to acceptable levels. Employers are required to determine if PPE should be used to protect their workers.</p>	

THE GENERAL DUTY CLAUSE

The **General Duty Clause** describes the employer's obligation to “**furnish each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees.**”

This clause from the OSH Act is utilized to cite serious hazards where no specific OSHA standard exists to address the hazard, as is the case with ergonomic stressors.

When OSHA uses the General Duty Clause to cite an employer, OSHA must demonstrate that:

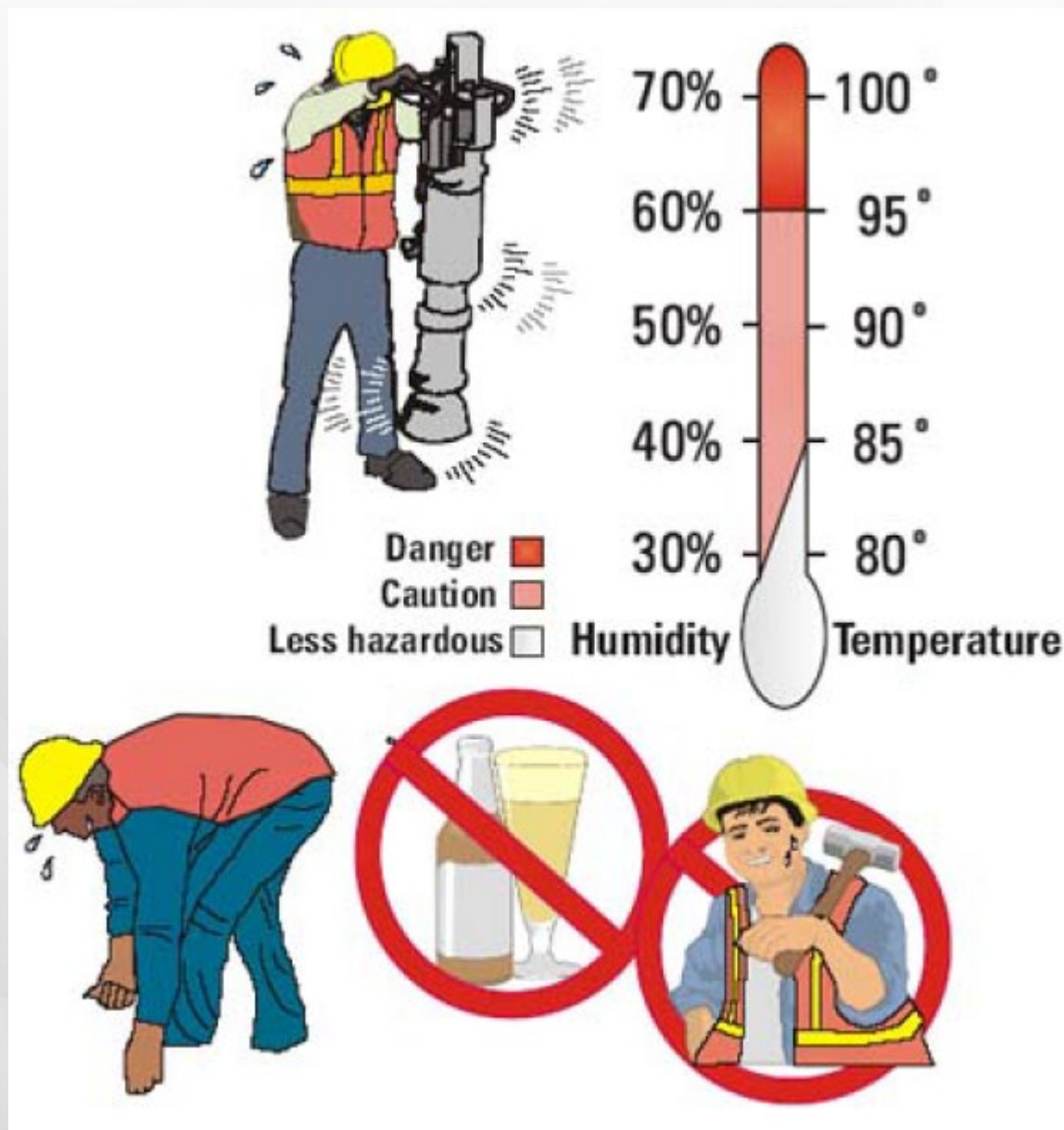
- 1) The employer failed to keep the workplace free of a hazard to which employees were exposed.
- 2) The hazard was causing or likely to cause death or serious physical harm.
- 3) The hazard was recognized.
- 4) A feasible means of abatement for that hazard exists.

INDUSTRIES

- Operations with a potential for inducing heat stress.
 - Involving high air temperatures
 - Radiant heat sources
 - High humidity
 - Direct contact with hot objects
 - Strenuous physical activities

Who is affected?

- Workers exposed to:
 - Hot and humid conditions
 - Heavy work tasks
 - Bulky protective clothing and equipment
 - Heat and humidity conditions to which they are unacclimated



WHY IS IT IMPORTANT TO PREVENT HEAT ILLNESS?



- The frequency of accidents in general appears to be higher in hot environments than in more moderate temperatures.
- Having a serious injury or death occur at work affects everyone at a worksite.
- Workers suffering from heat exhaustion are at greater risk for accidents since they are less alert and can be confused.
- Mental confusion, tiredness, and irritability may occur when an employee becomes overheated.
- Heat tends to promote accidents that occur because of sweaty palms, dizziness, or the fogging of safety glasses.
- Employees can get burned from accidental contact with hot materials such as steam or metal surfaces.

HEAT ILLNESS CAN BE A MATTER OF LIFE AND DEATH.

- When heat stroke doesn't kill immediately, it can shut down major body organs causing acute heart, liver, kidney and muscle damage, nervous system problems, and blood disorders.

FACTS & STATISTICS

- Heat is the leading weather-related killer, ending more lives than hurricanes, floods, tornadoes, and lightning combined.
- Extreme hot weather strains the heart and lungs, causing heart attacks, strokes and respiratory disease in vulnerable individuals.
- CDC reported 505 heat related deaths in 2019
- Other estimates puts the number around 5,600 deaths can be heat related

RISK FACTORS FOR HEAT STRESS

ENVIRONMENTAL RISK FACTORS

1. Temperature
2. Humidity
3. Air movement
4. Radiant heat
(e.g., sun exposure)



Risk Factors (Source: NIOSH)

RISK FACTORS FOR HEAT STRESS

WORK-RELATED RISK FACTORS

1. Age
2. Physical fitness
3. Acclimatization
4. Medical conditions
5. Medications
6. Alcohol and/or drug use
7. Caffeine



Risk Factors (Source: NIOSH)

HOW THE BODY HANDLES HEAT

- Heart rate increases
- Circulation to skin increases
 - Flushed skin
- Sweat evaporates from skin leading to cooling



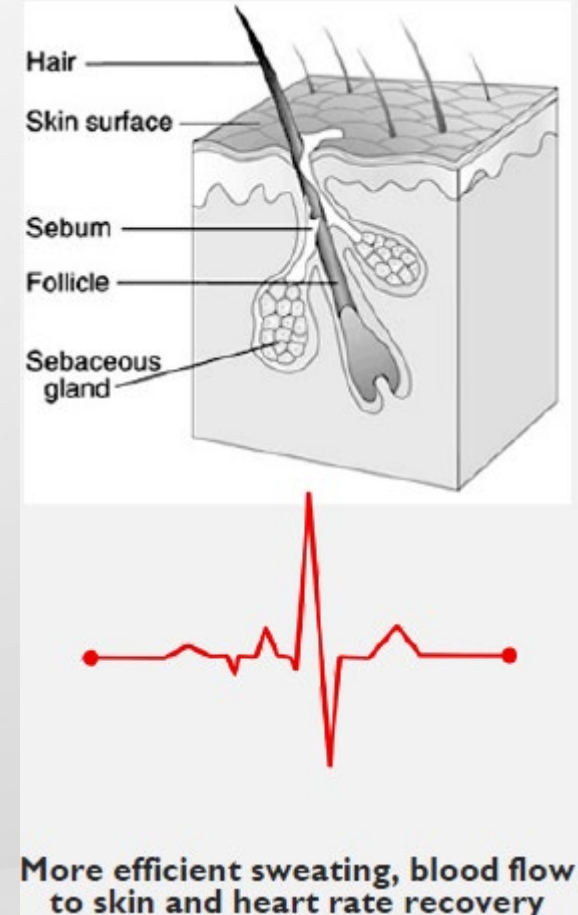
Thermogram (Stock Photo)

HOW THE BODY COOLS ITSELF

- Sweating
- Conduction
- Convection
- Radiation

THE IMPORTANCE OF ACCLIMATIZATION

- Reduces risks of dehydration and salt loss
 - Sweating and evaporative cooling becomes more efficient
 - Salt loss becomes efficient (less loss)
- Core body temperature maintained more efficiently
- Reduces strain on heart
 - Blood circulation to skin becomes more efficient
- Recovery heart rate improves



Prevent Heat Illness at Work



Ease into Work. Nearly 3 out of 4 fatalities from heat illness happen during the first week of work.

Build a tolerance to heat by increasing intensity by 20% each day.



Drink cool water even if you are not thirsty



Rest for long enough to recover from the heat



Take breaks in a shady or cool area



Wear a hat and dress for the heat



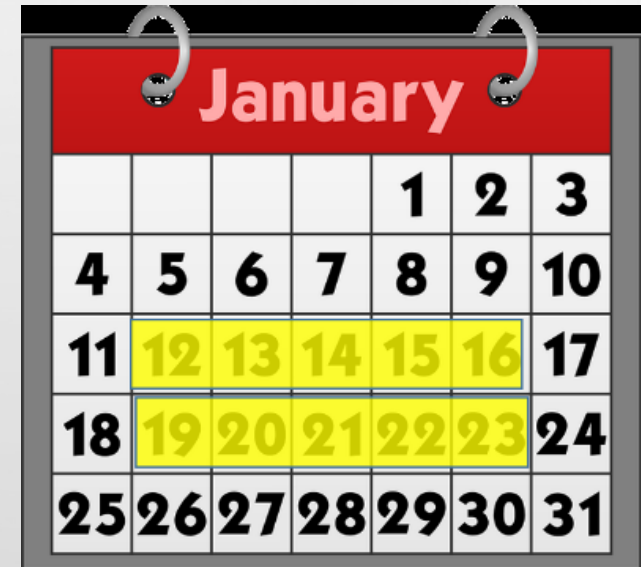
Watch out for each other



Verbally check on workers wearing face coverings

IT TAKES ROUGHLY 10-14 DAYS FOR ONE TO ACCLIMATE TO HOT ENVIRONMENTS

- Gradually increase exposure to hot environment over 7-14 days
- Avoid prolonged exertion during hottest times of day
- Schedule heavy exertion for cooler parts of day



WHEN ACCLIMATED WORKERS TAKE AN EXTENDED BREAK, THEY NEED TO RE-ACCLIMATE.

Acclimatized workers will need 2-3 days of re-acclimatization if they stop working under heat stress conditions more than a week.



THE IMPORTANCE OF CONSUMING WATER THROUGHOUT THE WORK SHIFT

- One cup (8 oz.) of cool water or an electrolyte replacement fluid every 15-20 minutes; four cups of water every hour.
- Increased water intake may be needed to account for increased physical exertion and/or sweating.



Source: Cal OSHA

PHYSIOLOGICAL MONITORING FOR DEHYDRATION MAY BE NECESSARY UNDER EXTREME CONDITIONS

- If sweat is not trapped within clothing, then we can monitor body weight, which should not drop below 1.5% of starting body weight.
- Urine color is another indicator of potential dehydration. Normal urine should be a pale yellow.

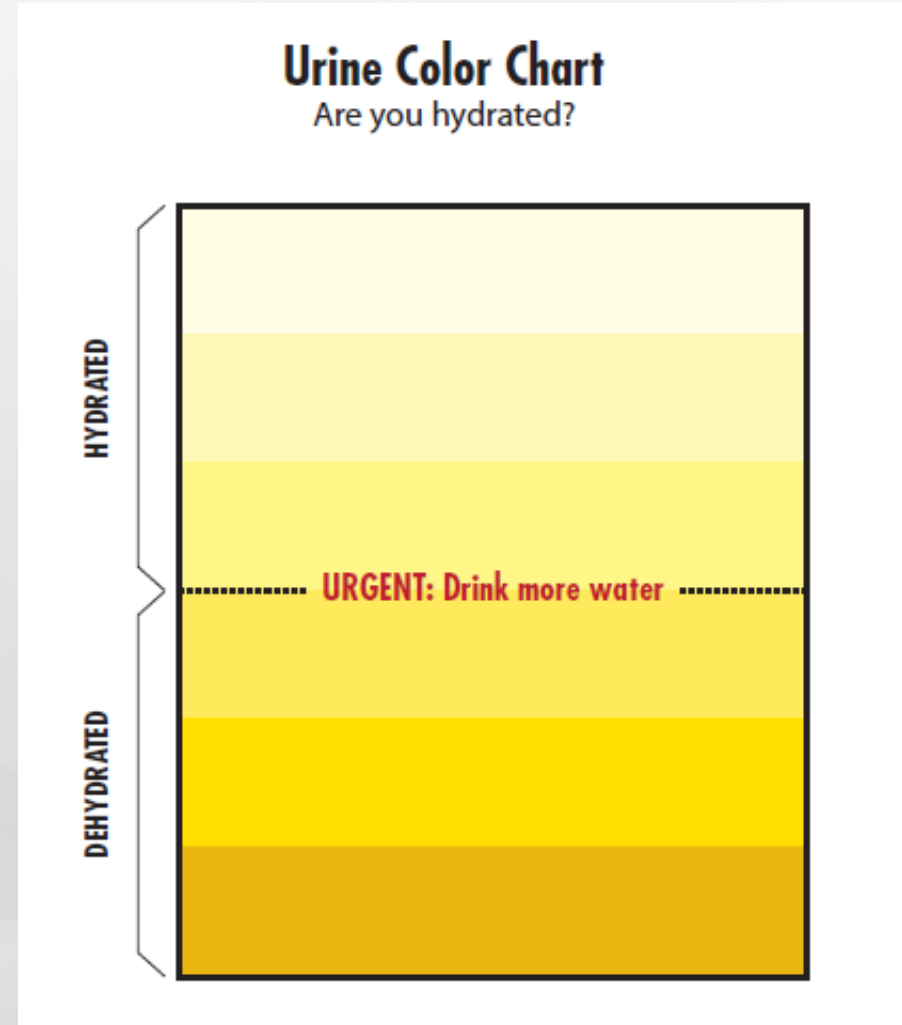


Sweat trapped by encapsulating suit

MONITORING URINE COLOR

Urine Color Chart

- Normal urine should be pale yellow
- Darker urine can indicate dehydration
- Some diets, medications and illnesses may affect results



IMPORTANCE OF FREQUENT REST BREAKS AND SHADE

Prolonged physical exertion and muscle activity increases the body's core temperature and reduces the body's ability to cool itself.

- Breaks allow blood to flow to the skin to be cooled.
- Rest breaks slow down the buildup of heat in the body from prolonged muscle activity.
- Rest breaks are important for the heart and allow your heart rate to recover from sustained heat stress and physical exertion.
- Rest breaks in the shade help with cooling, especially if there is air movement with cool air.

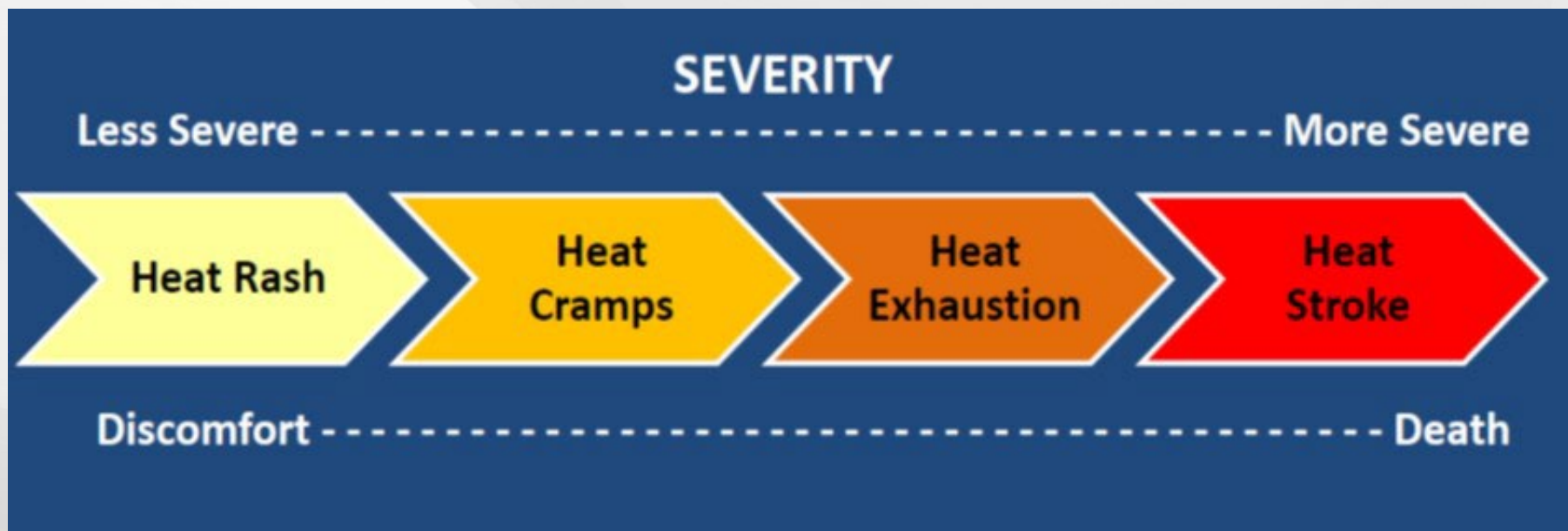


Shade

HEAT-RELATED ILLNESSES

Major Heat-Related Illnesses	What You Need to Know
<ul style="list-style-type: none">• Heat Rash• Heat Cramps• Heat Syncope• Heat Exhaustion• Heat Stroke• Rhabdomyolysis	<ul style="list-style-type: none">• Cause• Preventative measures• Signs & symptoms• First aid treatment• When to report

PROGRESSION OF HEAT-RELATED ILLNESSES (SOURCE: NIOSH)



HEAT INDEX

Heat Index

HEAT INDEX

HOW TO USE HEAT INDEX:

Across top (Air temperature) locate today's predicted high temperature.

Down left side (Relative Humidity) locate today's predicted humidity.

Follow across and down to find "APPARENT TEMPERATURE" or "WHAT IT FEELS LIKE".

Heat Index Values were devised for shady, light wind conditions. Exposure to full sun can increase values by up to 15°. Strong winds, particularly with hot, dry air can be extremely hazardous.

Heat Index									
Air Temp. →	70°	75°	80°	85°	90°	95°	100°	105°	110°
Relative Humidity ↓	Apparent Temperature (Degrees Fahrenheit) →								
0%	64°	69°	73°	78°	83°	87°	91°	95°	99°
10%	65°	70°	75°	80°	85°	90°	95°	100°	105°
20%	66°	72°	77°	82°	87°	93°	99°	105°	112°
30%	67°	73°	78°	84°	90°	96°	104°	113°	123°
40%	68°	74°	79°	86°	93°	101°	110°	122°	137°
50%	69°	75°	81°	88°	96°	107°	120°	135°	150°
60%	70°	76°	82°	90°	100°	114°	132°	149°	
70%	70°	77°	85°	93°	106°	124°	144°		
80%	71°	78°	86°	97°	113°	136°	157°		
90%	71°	79°	88°	102°	122°	150°	170°		
100%	72°	80°	91°	108°	133°	166°			

HEAT INDEX

HEAT INDEX 90°-100°:
Sun stroke, heat cramps and
heat exhaustion are possible with
prolonged exposure and physical
activity.

HEAT INDEX

HEAT INDEX 105° - 129°:
Sun stroke, heat cramps and
heat exhaustion likely. Heat
stroke possible with prolonged
exposure and physical activity.

HEAT INDEX

HEAT INDEX 130°
OR HIGHER:
Heat stroke or sun
stroke imminent.

EXCESSIVE EXPOSURE TO A HOT ENVIRONMENT CAN BRING ABOUT A VARIETY OF HEAT-RELATED HEALTH PROBLEMS AND ILLNESSES

- Heat Cramps
- Fainting
- Heat Rash
- Heat Exhaustion



HEAT CRAMPS

- Heavy sweating drains the body of salt, which cannot be replaced by simply drinking water. Painful cramps occur in the arms, legs, or stomach while on the job, or later at home. Move to a cool area at once if cramping is experienced. Loosen clothing and drink cool, lightly-salted water or a commercial fluid replacement beverage. Seek medical aid if the cramps are severe, or don't go away.



FAINTING

- ***Fainting*** may occur when an employee who is not used to the heat stands in one position for an extended period of time. An employee who has fainted should recover after a brief period of sitting or lying down. Moving around, rather than standing still, will reduce the possibility of fainting.



HEAT RASH

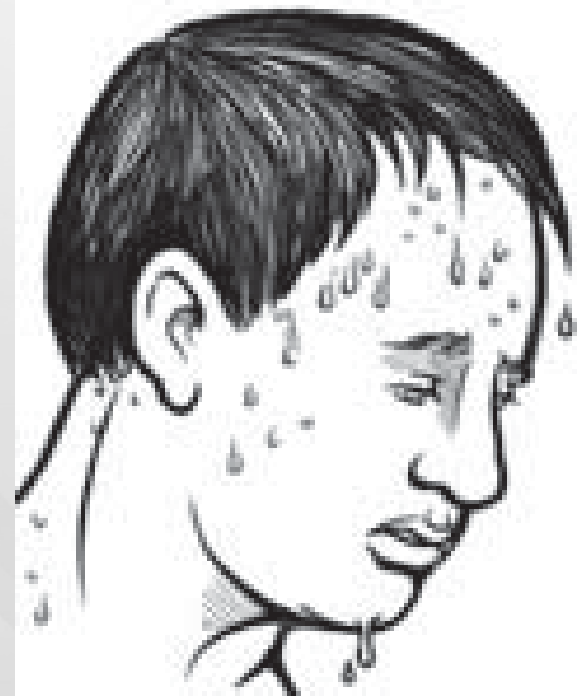
- **Heat Rash** (also known as prickly heat) often occurs in hot, humid environments where sweat does not easily evaporate from the skin. The sweat ducts become clogged, resulting in a rash. Heat rash can be very uncomfortable if the rash is extensive or complicated by infection. Taking frequent breaks in a cool place during the workday and bathing and drying the skin regularly can help prevent heat rash.



HEAT EXHAUSTION

- **Heat Exhaustion** is caused by the loss of large amounts of fluid by sweating, sometimes with excessive loss of salt. An employee suffering from heat exhaustion still sweats but may experience the signs and symptoms listed below:

- Heavy sweating
- Cool, moist skin
- Body temp over 100.4 degrees F
- Weak pulse
- Normal or low blood pressure
- mood changes (confused or irritable)
- Thirsty
- Blurry sight
- Panting or breathing rapidly



Get medical help immediately!

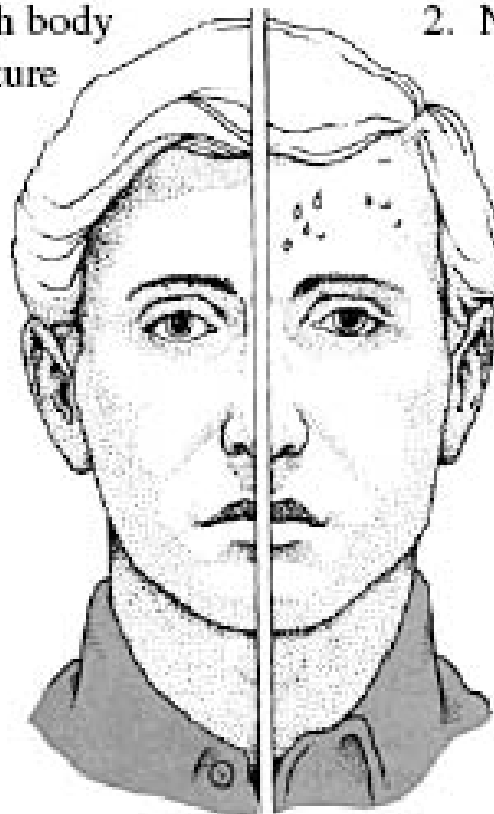
SIGNS & SYMPTOMS OF HEAT STROKE & HEAT EXHAUSTION

Heat Stroke

1. Dry, hot skin
2. Very high body temperature

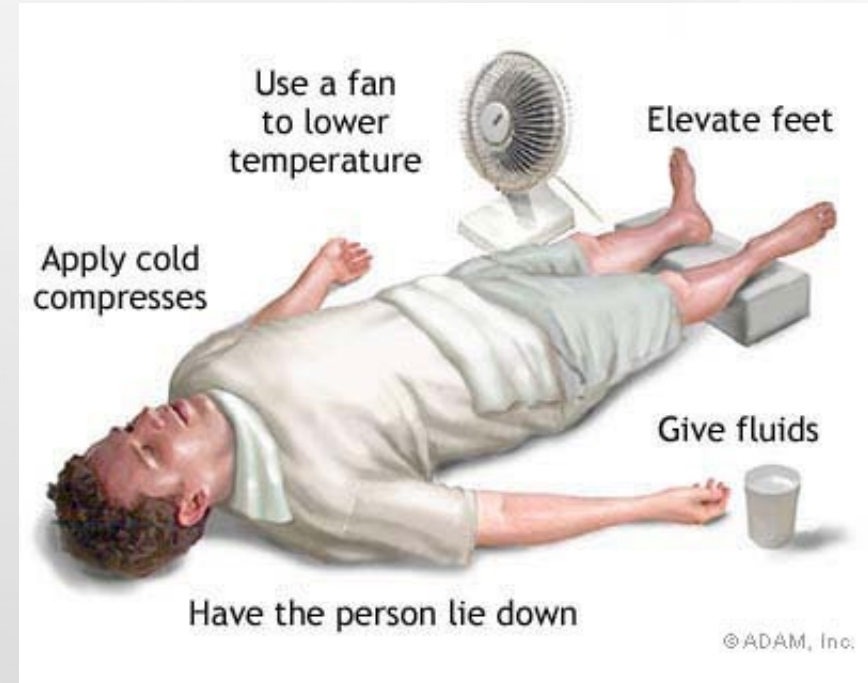
Heat Exhaustion

1. Moist clammy skin
2. Normal or subnormal temperature



HEAT EXHAUSTION FIRST AID

- Move the victim to a cool place.
- Keep the victim lying down with legs straight and elevated 8-12 inches.
- Cool the victim by applying cold packs or wet towels or cloths. Fan the victim.
- Give the victim cold water if he or she is fully conscious.
- If no improvement is noted within 30 minutes, seek medical attention.



HEAT STROKE CAN KILL A PERSON QUICKLY

- Once the body uses up all its water and salt, sweating ceases. Temperature can rise quickly. You can assume a person is suffering from heat stroke if their body temperature is over 105.8 degrees Fahrenheit, and any of the following symptoms are present: weakness, confusion, distress, strange behavior.
- Hot, dry, red skin.
- Rapid pulse.
- Headache or dizziness.
- In later stages of heat stroke, a victim may pass out and have convulsions.



HEAT STROKE FIRST AID

- Move the victim to a cool place. Remove heavy clothing; light clothing can be left in place.
- Immediately cool the victim by any available means. Such as placing ice packs at areas with abundant blood supply (neck, armpits, and groin). Wet towels or sheets are also effective. The cloths should be kept wet with cool water.
- To prevent hypothermia continue cooling the victim until their temperature drops to 102 degrees Fahrenheit.
- Keep the victim's head and shoulders slightly elevated.
- Seek medical attention immediately. All heat stroke victims need hospitalization.
- Care for seizures if they occur.
- Do not use aspirin or acetaminophen.



THE EFFECT OF FLUID LOSS ON PERFORMANCE

- 2% - Impaired Performance
- 4% - Capacity for muscular work declines
- 6% - Heat Exhaustion
- 8% - Hallucination
- 10% - Circulatory collapse and heat stroke



HOW TO KEEP WORKING MUSCLES WORKING WHEN THE HEAT IS ON

1. BEWARE OF HEAT EXHAUSTION, HEAT CRAMPS, OR HEAT STROKE WHEN YOU'RE INVOLVED IN STRENUOUS ACTIVITY IN ENVIRONMENTS OF 90° FAHRENHEIT OR ABOVE.



HOW TO KEEP WORKING MUSCLES WORKING WHEN THE HEAT IS ON

**2. TAKE TIME TO ALLOW YOUR BODY TO ADJUST TO
HIGH-HEAT, HIGH-HUMIDITY ENVIRONMENTS
BEFORE EXERTION BEGINS.**



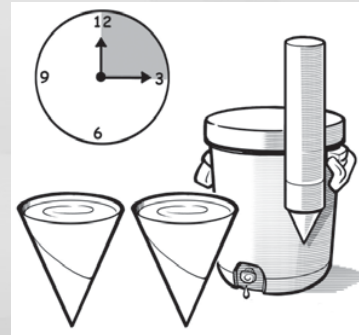
HOW TO KEEP WORKING MUSCLES WORKING WHEN THE HEAT IS ON

3. IF YOU WORK IN PROTECTIVE CLOTHING AND EQUIPMENT, YOUR CHANGES OF HEAT STRESS ARE GREATLY INCREASED. IN WORK ENVIRONMENTS OF 81° FAHRENHEIT OR ABOVE, EXPERTS RECOMMEND NO EMPLOYEE SPEND MORE THAN 15 MINUTES OF ANY ONE HOUR IN AN IMPERVIOUS SUIT UNLESS COOLING HAS BEEN PROVIDED TO THE SUIT OR THE EMPLOYEE IS WEARING A HEAT STRESS MONITOR.



HOW TO KEEP WORKING MUSCLES WORKING WHEN THE HEAT IS ON

4. DON'T DEPEND ON THIRST OR SWEAT AS AN INDICATOR OF ESCALATING BODY HEAT. THIRST IS NOT ALWAYS A DEPENDABLE GAUGE AND SWEAT MAY EVAPORATE QUICKLY, ESPECIALLY IN DRY-HEAT ENVIRONMENTS. INSTEAD, BE AWARE OF THE TEMPERATURE AND HUMIDITY, AND DRINK FLUIDS WITH ELECTROLYTES AT REGULAR INTERVALS.



HOW TO KEEP WORKING MUSCLES WORKING WHEN THE HEAT IS ON

5. KNOW THE SYMPTOMS OF HEAT STROKE, HEAT EXHAUSTION, AND HEAT CRAMPS, AND RESPOND QUICKLY.



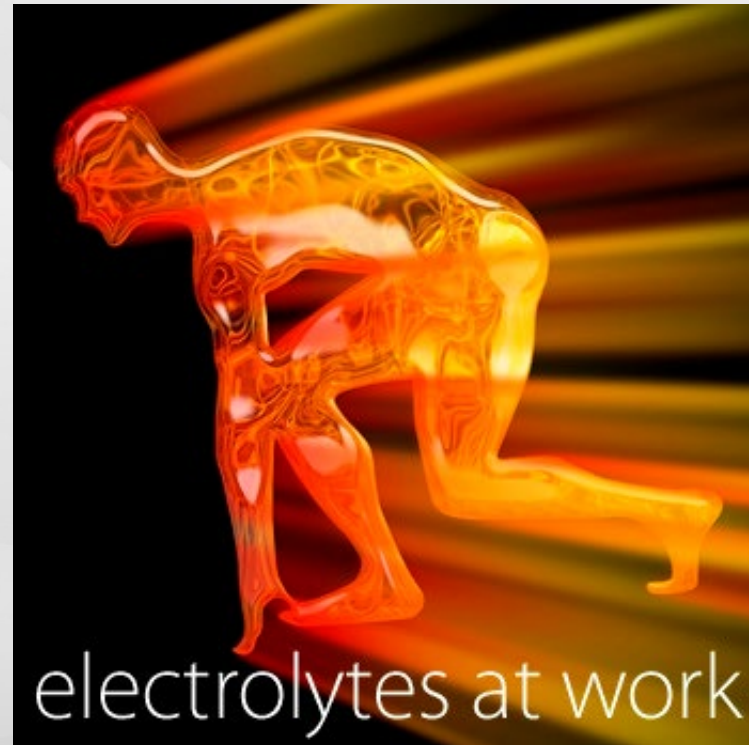
HOW TO KEEP WORKING MUSCLES WORKING WHEN THE HEAT IS ON

6. REMEMBER, IT IS MUCH EASIER TO PREVENT HEAT STRESS INJURIES THAN TO RECOVER FROM THEM. BE AWARE OF THE ENVIRONMENT IN WHICH YOU WORK AND DRINK FLUIDS WITH ELECTROLYTES ON A REGULAR BASIS THROUGHOUT THE WORKDAY.



ELECTROLYTES

**ELECTROLYTES ARE SIMILAR TO
ANTIFREEZE IN AN AUTOMOBILE.**



ELECTROLYTES

**WITHOUT ANTIFREEZE OR THE
PROPER MIX OF ANTIFREEZE,
THE CAR QUICKLY OVERHEATS
DURING INTENSE USE.**

ELECTROLYTES

**WITHOUT ELECTROLYTES, THE
BODY RESPONDS SIMILARLY.
THE HARDER IT IS WORKED,
THE QUICKER IT OVERHEATS.**



DO'S & DON'TS

DO	DON'T
<ul style="list-style-type: none">• Drink plenty of water.• Take breaks in a cool, shady area.• Watch for symptoms of a heat stress, both in yourself and co-workers.	<ul style="list-style-type: none">• Ignore symptoms of heat stress.• Try to get a suntan while working.• Try to “keep up” with the rest of the crew, even though you feel ill.

HEAT ILLNESS CAN BE PREVENTED!



Remember three simple words:
WATER, REST, SHADE.



Drink water often



Rest in the Shade



Take breaks



Limit time in the heat

HOW YOU CAN MINIMIZE HEAT EXPOSURE IN YOUR WORKPLACE



DEVELOPMENT OF A PLAN

PURPOSE AND SCOPE

Purpose

This heat-illness prevention plan was developed to provide supervisors and workers with the training and tools to help protect them from heat-related exposures and illnesses.

Scope

Each work site and job task can be unique and contain a number of heat stress hazards that must be addressed prior to the beginning work and during work activities. Supervisors and workers are responsible for assessing these hazards and taking necessary corrective actions to reduce heat-related illnesses.

EMPLOYEE TRAINING AND RESPONSIBILITIES

- Each employee trained on procedures and will strictly adhere to them except when doing so would expose the employee to a greater hazard
- Employees are to notify their supervisor of a concern and have the concern addressed before proceeding



Source: Cal OSHA

MAIN ELEMENTS OF HEAT-ILLNESS PREVENTION PLAN

Control	Description
1. Train supervisors and workers	Train supervisors and workers on heat-illness prevention strategies, as well as to recognize and report the signs and symptoms of heat-related illnesses.
2. Monitor weather and workplace conditions	Monitor weather workplace conditions and take preventative measures to protect workers when the temperatures exceed 70 °F (21 °C).
3. Conduct a heat hazard assessment when temperatures exceed 70 °F	Determine an effective wet-bulb globe temperature (WBGT-Effective) and use established recommended alert limits (non-acclimatized workers) and exposure limits (acclimatized workers) to determine the heat stress risk level.
4. Implement heat-illness prevention strategies	Implement appropriate heat-illness prevention strategies based on established risk levels for heat stress.
5. Plan for heat-related medical emergencies	Ensure adequate supervision, first aid and medical services are readily available in the event a worker suffers from a heat illness.

Final Questions



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Thank You



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Closing Remarks



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Register Today for our Heat Stress Prevention
Virtual Training and Receive **\$15 Off**

Instructed by:



Jason Mozo, J.D.
Executive Director
Florida Chamber Safety Council

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***Participants will earn a Course Completion Certificate and .2 CEUs**