



# Safety Works - Keep Informed

## EYE SAFETY\*

Each day about 2000 U.S. workers sustain a job-related eye injury that requires medical treatment. About one third of the injuries are treated in hospital emergency departments and more than 100 of these injuries result in one or more days away from work.

### How do eye injuries happen to workers?

- **Striking or scraping:** The majority of eye injuries result from small particles or objects striking or scraping the eye, such as: dust, cement chips, metal slivers, and wood chips. These materials are often ejected by tools, windblown, or fall from above a worker. Large objects may also strike the eye or face, or a worker may run into an object causing blunt-force trauma to the eyeball or eye socket.
- **Penetration:** Objects like nails, staples, or slivers of wood or metal can go through the eyeball and result in a permanent loss of vision.
- **Chemical and thermal burns:** Industrial chemicals or cleaning products are common causes of chemical burns to one or both eyes. Thermal burns to the eye also occur, often among welders. These burns routinely damage workers' eyes and surrounding tissue.

### How do workers acquire eye diseases?

Eye diseases are often transmitted through the mucous membranes of the eye as a result of direct exposure to things like blood splashes, and droplets from coughing or sneezing or from touching the eyes with a contaminated finger or object. Eye diseases can result in minor reddening or soreness of the eye or in a life threatening disease such as HIV, hepatitis B virus, or avian influenza.

### What can workers do to prevent eye injury and disease?

Wear personal protective eyewear, such as goggles, face shields, safety glasses, or full face respirators.

The eye protection chosen for specific work situations depends upon the nature and extent of the hazard, the circumstances of exposure, other protective equipment used, and personal vision needs. Eye protection should be fit to an individual or adjustable to provide appropriate coverage. It should be comfortable and allow for sufficient peripheral vision.

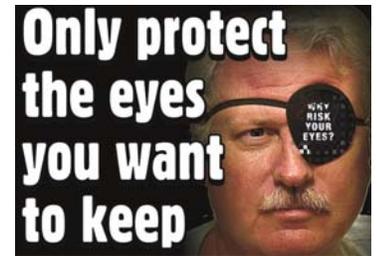
### What can employers do to prevent worker eye injury and disease?

Employers can ensure engineering controls are used to reduce eye injuries and to protect against ocular infection exposures. Employers can also conduct a hazard assessment to determine the appropriate type of protective eyewear appropriate for a given task.



### Risk Management & Insurance Services

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\*The National Institute for Occupational Safety and Health (NIOSH)

## Protecting Workers from Heat Illness

Workers who are exposed to extreme heat or work in hot environments may be at risk of heat stress. Exposure to extreme heat can result in occupational illnesses and injuries. Heat stress can result in heat stroke, heat exhaustion, heat cramps, or heat rashes. Heat can also increase the risk of injuries in workers as it may result in sweaty palms, fogged-up safety glasses, and dizziness. Burns may also occur as a result of accidental contact with hot surfaces or steam.

Workers at risk of heat stress include outdoor workers and workers in hot environments such as firefighters, bakery workers, farmers, construction workers, miners, boiler room workers, factory workers, and others. Workers at greater risk of heat stress include those who are 65

years of age or older, are overweight, have heart disease or high blood pressure, or take medications that may be affected by extreme heat.

Prevention of heat stress in workers is important. Employers should provide training to workers so they understand what heat stress is, how it affects their health and safety, and how it can be prevented.

### Prevent Heat Related Illness

- Take time to acclimate
- Stay well-hydrated
- Watch for signs of heat-related illnesses
- Take time to rest and cool down

\*The National Institute for Occupational Safety and Health (NIOSH)

*“Exposure to extreme heat can result in occupational illnesses and injuries.”*



## OSHA-NIOSH Heat Safety Tool App

The OSHA-NIOSH Heat Safety Tool is a useful resource for planning outdoor work activities based on how hot it feels throughout the day. Featuring real-time heat index and hourly forecasts, specific to your location, as well as occupational safety and health recommendations from OSHA and NIOSH.

The OSHA-NIOSH Heat Safety Tool features:

- A visual indicator of the current heat index and associated risk levels specific to your current geographical location
- Precautionary recommendations specific to heat index-associated risk levels
- An interactive, hourly forecast of heat index values, risk level, and recommendations for planning outdoor work activities in advance
- Editable location, temperature, and humidity controls for calculation of variable conditions
- Signs and symptoms and first aid information for heat-related illnesses

## NIOSH Ladder Safety App\* — Now featuring step ladders!

Climbing for work? Get user-friendly guides and tools for extension and step ladder selection and safe use. Download the NIOSH Ladder Safety App for free.

Available in English and Spanish (adaptive to which language is set on your device).



## MACHINE SAFETY\*

Machines can help improve production efficiency in the workplace. However, their moving parts, sharp edges, and hot surfaces can also cause serious workplace injuries such as crushed fingers or hands, amputations, burns, or blindness. Safeguards are essential to protect workers from injury. Any machine part, function, or process that might cause injury should be safeguarded. When the operation of a machine may result in a contact injury to the operator or others in the area, the hazard should be removed or controlled.



## ELECTRICAL SAFETY\*

Electrical current exposes workers to a serious, widespread workplace hazard. Many workers are exposed to electrical energy while completing their daily responsibilities, and many are unaware of the potential electrical hazards present in their work environment — making them more vulnerable to the danger of electrocution.



What electrical hazards do workers face?

*There are four main types of electrical injuries:*

- Electrocution (fatal)
- Electric shock
- Burns
- Falls caused as a result of contact with electrical energy

## What is the Occupational Health Safety Network?\*

The Occupational Health Safety Network (OHSN) was designed for healthcare facilities to monitor work-related injuries and exposures. The system enables participating facilities to analyze worker injury and exposure data that they already collect. Trends for traumatic injury and hazardous exposures are visualized using the OHSN chart function.

Five common, high risk, preventable injury and exposure events among healthcare workers are monitored by OHSN:

- Sharps Injuries
- Blood and Body Fluid Exposures
- Slips, Trips, and Falls
- Patient Handling Injuries
- Workplace Violence

*\*The National Institute for Occupational Safety and Health (NIOSH)*

## Cal OSHA Updates

### Proposed

*Employee Access to Injury and Illness Prevention Program* **Section 3203(a)** **General Industry Safety Orders**

*Single User Toilet Facilities* **Sections 1504, 1526, 3361, 3364, 3437, 3457 and 5192** **General Industry and Construction Safety Orders**

*High-Voltage Electrical Safety Orders* **Sections 2941 And 2942 - Section 3016** **Elevator Electrical Safety Orders**

*Heat Illness Prevention In Indoor Places of Employment* **Chapter 4, Subchapter 7, New Section** **General Industry Safety Orders**

*Fall Protection* **Section 8615(g)** **Telecommunications Safety Orders**

*Outdoor Agricultural Operations During Hours of Darkness* **Sections 3441 and 3449**

*See page 4 for Approved regulations*

## Cal OSHA Updates

### Approved

*General Industry Safety Orders*

#### Section 3389(A)

[Life Rings And Personal Flotation Devices](#)

In Marine Terminal Operations

**Effective April 1, 2019**

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*General Industry Safety Orders*

#### New Section 3999(B)

[Guarding Of Conveyor Belt Support Rollers](#)

Deletion of Note

**Effective July 1, 2019**

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**For more information regarding the development** of Occupational Safety and Health regulations, e-mail [oshsb@dir.ca.gov](mailto:oshsb@dir.ca.gov)

*See page 3 for proposed regulations*

## Keys to Successful Leadership\*

Leadership for Road Safety - Leadership is seen as flowing from the top down (where governments pass laws to make roads safer) and from the bottom up (where citizens tell governments what needs to be done based on their knowledge of local roads). In this article, we'll apply these ideas to workplace motor vehicle safety.

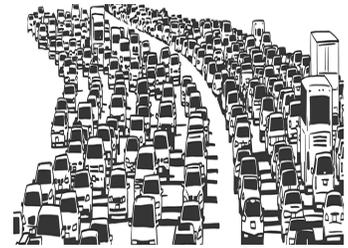
Most people in fleet safety management roles would agree on 2 points that are essential to success of a company's motor vehicle safety program: commitment from top management and driver engagement. These ideas are based on best practice. They're also supported by research.

- [Management commitment](#)
- [Driver engagement](#)
- [Bottom line](#)
- [Resources](#)

What does it mean for a company's top-level managers to commit to motor vehicle safety? It's not just a matter of sending an encouraging email to drivers and hoping that things will change.

Commitment means:

- Affirming motor vehicle safety as a core company value
- Defining motor vehicle roles and expectations for all involved (executives, upper and middle managers, fleet safety professionals, first-line supervisors, and drivers), and holding them accountable
- Providing enough staff and resources to run the program



- "Walking the walk:" If executives use their phones while driving or don't use seat belts, drivers won't buy in to company policies that tell them to do something different

Research has shown that commitment to motor vehicle safety by top management is linked to:

- Safer driving-related behaviors as reported by drivers, including: fewer driving errors, fewer violations of traffic laws or company safety policies; and lower levels of distracted, impaired, and fatigued driving
- More positive perceptions of company safety culture among drivers lower rates of worker injuries in motor vehicle crashes

Driver engagement in road safety doesn't happen in a vacuum. Success depends on substantive and persuasive interactions up and down the levels of the organization.

Research has shown that engaging drivers in motor vehicle safety is linked to:

- Significant reductions in crash rates and cost of crashes, after a company implemented group discussions among drivers to discuss personal and company-level solutions to motor vehicle safety problems

# INDOOR ENVIRONMENTAL QUALITY\*

## Overview

Indoor environmental quality (IEQ) refers to the quality of a building’s environment in relation to the health and wellbeing of those who occupy space within it. IEQ is determined by many factors, including lighting, air quality, and damp conditions. Workers are often concerned that they have symptoms or health conditions from exposures to contaminants in the buildings where they work. One reason for this concern is that their symptoms often get better when they are not in the building. While research has shown that some respiratory symptoms and illnesses can be associated with damp buildings, it is still unclear what measurements of indoor contaminants show that workers are at risk for disease. In most instances where a worker and his or her physician suspect that the building environment is causing a specific health condition, the information available from medical tests and tests of the environment is not sufficient to establish which contaminants are responsible. Despite uncertainty about what to measure and how to interpret what is measured, research shows that building-related symptoms are associated with building characteristics including dampness, cleanliness, and ventilation.

Indoor environments are highly complex and building occupants may be exposed to a variety of contaminants (in the form of gases and particles) from office machines, cleaning products, construction activities, carpets and furnishings, perfumes, cigarette smoke, water-damaged building materials, microbial growth (fungal, mold, and bacterial), insects, and outdoor pollutants. Other factors such as indoor temperatures, relative humidity, and ventilation levels can also affect how individuals respond to the indoor environment.

Understanding the sources of indoor environmental contaminants and controlling them can often help prevent or resolve building-related worker symptoms. Practical guidance for improving and maintaining the indoor environment is available.

Workers who have persistent or worsening symptoms should seek medical evaluation to establish a diagnosis and obtain recommendations for treatment of their condition.

\*The National Institute for Occupational Safety and Health (NIOSH)



*“Workers are often concerned that they have symptoms or health conditions from exposures to contaminants in the buildings where they work. “*

## Fall Incidents

### Fast Facts -

Circumstances associated with fall incidents in the work environment frequently involve:

- \* Slippery, cluttered, or unstable walking/working surfaces
- \* Unprotected edges
- \* Floor holes and wall openings
- \* Unsafely positioned ladders
- \* Misused fall protection

## Risk Assessment

DEFINITION - WHAT DOES *RISK ASSESSMENT* MEAN?

Risk assessment, in the context of safety, refers to the identification of potential hazards in the workplace as well as the likelihood that they will occur. By extension, risk assessment should also involve the implementation of measures to reduce or mitigate those hazards.

*By Safeopedia*

## VENOMOUS SNAKES



**Copperhead:** Photo courtesy of U.S. Fish and Wildlife Service

Venomous snakes found in the United States include rattlesnakes, copperheads, cottonmouths/water moccasins, and coral snakes. They can be dangerous to outdoor workers including farmers, foresters, landscapers, groundskeepers, gardeners, painters, roofers, pavers, construction workers, laborers, mechanics, and any other workers who spend time outside. Although rare, some workers with a severe allergy to snake venom may be at risk of death if bitten. It has been estimated that 7,000–8,000 people per year receive venomous bites in the United States, and about 5 of those people die. The number of deaths would be much higher if people did not seek medical care. It is important for employers to train their workers about their risk of exposure to venomous snakes, how they can prevent and protect themselves from snake bites, and what they should do if they are bitten.

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### Symptoms

Signs or symptoms associated with a snake bite may vary depending on the type of snake, but may include:

- ◆ A pair of puncture marks at the wound
- ◆ Redness and swelling around the bite
- ◆ Severe pain at the site of the bite
- ◆ Nausea and vomiting
- ◆ Labored breathing (in extreme cases, breathing may stop altogether)

- ◆ Disturbed vision
- ◆ Increased salivation and sweating
- ◆ Numbness or tingling around your face and/or limbs

### First Aid

Workers should take the following steps if they are bitten by a snake:

- ◆ Seek medical attention as soon as possible (dial 911 or call local Emergency Medical Services.)
- ◆ Try to remember the color and shape of the snake, which can help with treatment of the snake bite.
- ◆ Keep still and calm. This can slow down the spread of venom.
- ◆ Inform your supervisor.
- ◆ Apply first aid if you cannot get to the hospital right away.
  - \* Lay or sit down with the bite below the level of the heart.
  - \* Wash the bite with soap and water.
  - \* Cover the bite with a clean, dry dressing.

Do NOT do any of the following:

- ◆ Do not pick up the snake or try to trap it.
- ◆ Do not wait for symptoms to appear if bitten; seek immediate medical attention.
- ◆ Do not apply a tourniquet.
- ◆ Do not slash the wound with a knife.
- ◆ Do not suck out the venom.
- ◆ Do not apply ice or immerse the wound in water.
- ◆ Do not drink alcohol as a painkiller.
- ◆ Do not drink caffeinated beverages.

*“It has been estimated that 7,000–8,000 people per year receive venomous bites in the United States, and about 5 of those people die.”*

## VENOMOUS SPIDERS

Venomous spiders found in the United States include the black widow and the brown recluse. These spiders can be dangerous to outdoor workers. These spiders occasionally find their way inside structures or buildings and can also present a risk to indoor workers including machine operators, janitors, and cashiers (Bureau of Labor Statistics – Insects bites, stings cause thousands of workplace injuries ). Spiders are usually not aggressive and most bites occur because a spider is trapped or unintentionally contacted. It is important for employers to educate their workers about their risk of exposure to venomous spiders, how they can prevent and protect themselves from spider bites, and what they should do if they are bitten.



Photo courtesy of  
University of Missouri

### Symptoms

Symptoms associated with spider bites can vary from minor to severe. Although extremely rare, death can occur in the most severe cases. Possible symptoms resulting from a spider bite include the following:

- |                          |                          |                                       |
|--------------------------|--------------------------|---------------------------------------|
| ◦Itching or rash         | ◦Headache                | ◦Pain radiating from the site of bite |
| ◦Fever                   | ◦Muscle pain or cramping | ◦Difficulty breathing                 |
| ◦Chills                  | ◦Increased sweating      | ◦Nausea and vomiting                  |
| ◦Anxiety or restlessness | ◦High blood pressure     | ◦Reddish to purplish color or blister |

### First Aid

Workers should take the following steps if they are bitten by a spider:

- ◆ Stay calm. Identify the type of spider if it is possible to do so safely. Identification will aid in medical treatment.
- ◆ Wash the bite area with soap and water.
- ◆ Apply a cloth dampened with cold water or filled with ice to the bite area to reduce swelling.
- ◆ Elevate bite area if possible.
- ◆ Do not attempt to remove venom.
- ◆ Notify your supervisor.
- ◆ Immediately seek professional medical attention.

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*“Insects bites, stings cause thousands of workplace injuries.”*

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## Office Environment

- ⇒ Maintaining a healthy office environment requires attention to chemical hazards, equipment and work station design, physical environment (temperature, humidity, light, noise, ventilation, and space), task design, psychological factors (personal interactions, work pace, job control) and sometimes, chemical or other environmental exposures.
- ⇒ A well-designed office allows each employee to work comfortably without needing to over-reach, sit or stand too long, or use awkward postures (correct ergonomic design). Sometimes, equipment or furniture changes are the best solution to allow employees to work comfortably. On other occasions, the equipment may be satisfactory but the task could be redesigned. For example, studies have shown that those working at computers have less discomfort with short, hourly breaks.
- ⇒ Situations in offices that can lead to injury or illness range from physical hazards (such as cords across walkways, leaving low drawers open, objects falling from overhead) to task-related (speed or repetition, duration, job control, etc.), environmental (chemical or biological sources) or design-related hazards (such as nonadjustable furniture or equipment). Job stress that results when the requirements of the job do not match the capabilities or resources of the worker may also result in illness.



