

Safety Lines

Working in the summer sun: Steps, tools to prevent heat illness

Millions of U.S. employees are exposed to heat in their workplace. Although heat-related illness is preventable, thousands of workers become ill each year while working in hot or humid conditions, and some cases are fatal. Nearly three out of four fatalities from heat illness happen during the first week of work because new and returning employees have not built a tolerance to the heat gradually. The process of building tolerance is known as “acclimatization.”

Signs and symptoms – take action

A range of heat illnesses can affect anyone, regardless of age or physical condition. Furthermore, exposure to heat can occur in a variety of outdoor *and* indoor environments, such as construction, agriculture, bakeries and kitchens with heat-generating appliances, foundries, warehousing and more. Below are a few common types of heat illnesses and their signs and symptoms.

- **Heat stroke:** Symptoms include confusion, slurred speech, unconsciousness, seizures, heavy sweating or hot and dry skin, very high body temperature and rapid heart rate.
- **Heat exhaustion:** Symptoms include fatigue, irritability, thirst, nausea or vomiting, dizziness or lightheadedness, heavy sweating, elevated body temperature and fast heart rate.
- **Heat cramps:** Symptoms include muscle spasms or pain, usually in the legs, arms or trunk.



If heat stroke is suspected, call 911 right away – this is a medical emergency.

For any case of heat illness, cool the employee off by following first aid recommendations provided on the [Heat-related illnesses and first aid webpage](#) from federal OSHA. Never leave a worker with heat illness alone and, when in doubt, call 911.

- Take the affected worker to a cooler area (for example, in the shade or into air conditioning).
- Immerse the worker in cold water or an ice bath – this is the best method to cool the worker rapidly.
- Remove outer layers of clothing, especially heavy gear.
- Place ice or cold wet towels on the person’s head, neck, trunk, armpits and groin.

Working in the summer sun, continues ...



Employers' responsibility to protect workers

Under the OSHA Act, employers are responsible for providing workplaces free of known safety hazards. This includes protecting workers from heat-related hazards. It is the employer's responsibility to:

- provide workers with water, rest and shade;
- allow new or returning workers to gradually increase workloads and take more frequent breaks during the first week of work (acclimatizing);
- plan for emergencies and train workers about prevention; and
- monitor workers for signs of illness.

For indoor workplaces in Minnesota, employers must also adhere to [Minnesota Rules 5205.0110, subpart 2, Indoor ventilation and temperature in places of employment](#).

Creating a Heat Illness Prevention Plan

Federal OSHA's [Heat illness prevention campaign](#) was designed to educate employers and workers about the dangers of working in the heat and to provide resources for developing a heat illness prevention plan.

Components of the plan may include the following.

- Planning and supervision – explaining who will develop and manage the plan
- Protecting new workers by establishing a culture of acclimatization
- Heat hazard recognition, including environmental monitoring
- Determination of engineering controls, work practices and personal protective equipment (PPE)

Methods of reducing heat stress – control methods

Employers should always follow the “hierarchy of controls” when determining how to eliminate and reduce hazards. Engineering controls should be used first, followed by work practices and then PPE.

Engineering controls:

- air conditioning, increased ventilation or cooling fans;
- reflective shields to redirect radiant heat;
- insulation of hot surfaces and elimination of steam leaks; and
- cooled seats or benches and misting fans.

Work practices:

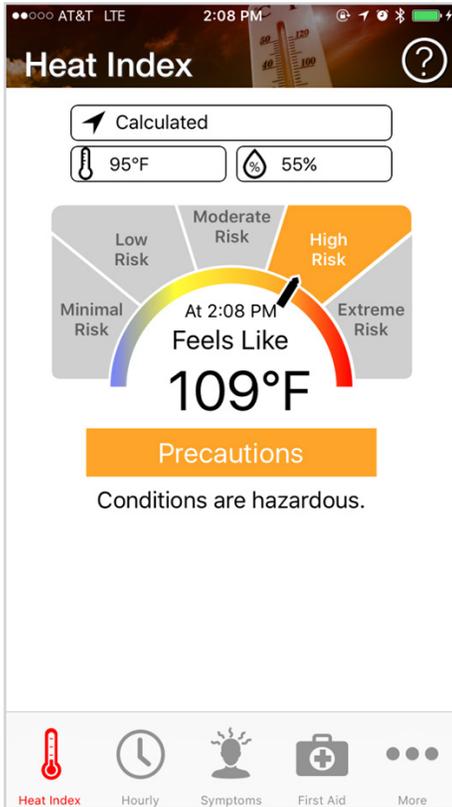
- modify work schedules and schedule shorter shifts for unacclimatized workers (gradually increase shifts over one to two weeks);
- follow the “rule of 20%,” where new workers work only 20% of the normal duration on their first day and then work duration is increased by 20% on each subsequent day until the worker is performing a normal schedule;
- require mandatory rest breaks in a cooler environment;
- consider scheduling work at cooler times of the day, such as early morning or late afternoon; and
- reduce physical demands as much as possible and rotate job functions to minimize worker exertion.

Personal protective equipment:

- insulated suits, reflective clothing and face shields, and cooling neck wraps; and
- for extreme heat, cooling vests or jackets with reusable ice pack inserts.

A comprehensive list of controls from federal OSHA is online at www.osha.gov/heat-exposure/controls.





Other helpful tools and information

OSHA-NIOSH Heat Safety Tool app

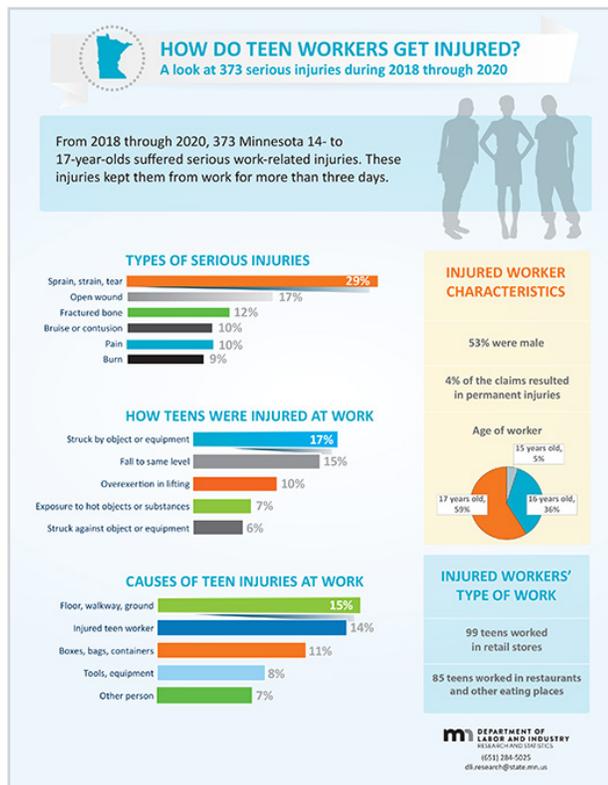
- The app, created by the U.S. Department of Labor, federal OSHA, the Centers for Disease Control and Prevention, and the National Institute for Occupational Safety and Health (NIOSH), allows workers and supervisors to calculate the heat index for their worksite.
- The app displays a risk level to outdoor workers and has reminders about protective measures.
- It is available in English and Spanish for Android and iPhone devices ([learn more about the app](#)).

OSHA proposed rulemaking:

- Federal OSHA is initiating rulemaking to have a standard for heat injury and illness prevention.
- The advance notice of proposed rulemaking can be viewed on the [Federal Register website](#).

Other resources and links:

- [Federal OSHA's Heat illness prevention campaign website](#)
- Additional [campaign resources and links](#)



How teens get injured at work

From 2018 through 2020, 373 Minnesota 14- to 17-year-olds suffered serious work-related injuries. These injuries kept them from work for more than three days.

The Minnesota workers' compensation teen claim characteristics one-page flyer has recently been updated and is available at www.dli.mn.gov/business/workers-compensation/claim-characteristics.

Injured worker characteristics

- Fifty-three percent were male
- Four percent of the claims resulted in permanent injuries
- Age of worker: 17 years old, 59%; 16 years old, 36%; and 15 years old, 5%

Injured workers' type of work

- Ninety-nine teens worked in retail stores
- Eight-five teens worked in restaurants and other eating places

Minnesota's newest MNSHARP worksites recognized

Minnesota OSHA (MNOSHA) Workplace Safety Consultation recently recognized two Lifecore Biomedical, L.L.C. locations -- in Chanhassan and in Chaska, Minnesota -- as a Minnesota Safety and Health Achievement Recognition Program (MNSHARP) Construction worksites.

MNSHARP recognizes companies whose managers and employees work together to develop safety and health programs that go beyond basic compliance with all applicable OSHA standards and result in immediate and long-term prevention of job-related injuries and illnesses.

- [Learn more about MNSHARP](#)



Lifecore Biomedical • Chanhassan and Chaska, Minnesota

Translated materials, Language Line available via DLI website

The Department of Labor and Industry (DLI) posts its available translated materials online at www.dli.mn.gov/about-department/translated-materials. It has documents available in Chinese, Hmong, Karen, Somali and Spanish. A few other documents throughout the website are available in additional languages.

DLI also has access to Language Line, a free language translation phone service for limited-English speakers. If DLI help is needed, view the contact information at www.dli.mn.gov/about-department/about-dli/contact-us, call and one of our employees will get in touch with an interpreter in the needed language.

Construction Seminar dates for 2022/2023 season

Minnesota OSHA (MNOSHA) Compliance's free Construction Seminars are presented six times a year, every other month beginning in September, and feature a presentation about a specific construction safety or health topic -- with time for questions, answers and input -- plus an update from MNOSHA Compliance about what's currently happening regarding investigations.

2022/2023 dates

- Tuesday, Sept. 13, 2022
- Tuesday, Nov. 15, 2022
- Tuesday, Jan. 17, 2023
- Tuesday, March 21, 2023
- Tuesday, May 16, 2023



Get complete information, including how to join by computing device or phone, at www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-construction-seminars.

Results of audit by federal OSHA available online soon

The results from the annual audit by federal OSHA will be published and available soon. The federal report, Fiscal-year 2021 Comprehensive Federal Annual Monitoring Evaluation (FAME) Report, including Department of Labor and Industry Commissioner Roslyn Robertson's response, will be available at www.osha.gov/stateplans/famereport.

Frontline Worker Pay application open until July 22

The Frontline Worker Pay application is open through 5 p.m. (CT), Friday, July 22, 2022, at frontlinepay.mn.gov. Eligibility for Frontline Worker Pay are set forth in the Frontline Worker Pay law. If you are unsure if you are eligible, you should review the law and guidance and truthfully fill in and submit the application. More information and resources are available on the [Frontline Worker Pay outreach toolkit webpage](#).



MNOSHA fatality, serious-injury investigations summaries online

Each month, Minnesota OSHA (MNOSHA) Compliance publishes current, updated summaries of its fatality investigations and serious-injury investigations. For the federal-fiscal-year that began Oct. 1, 2021, MNOSHA Compliance has investigated 42 fatalities as of June 27.

The information provided about each investigation is:

- the inspection number, date of incident and worksite city;
- the type of business and number of employees;
- a description of the event; and
- the outcome of the MNOSHA Compliance investigation.



The summaries, plus other helpful workplace safety and health information from MNOSHA, are available at www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-resources-all-industries.

Safe + Sound Week 2022 – Aug. 15 through 21

Safe + Sound Week is a nationwide event each August that recognizes the successes of workplace health and safety programs and offers information and ideas about how to keep America's workers safe.

Successful safety and health programs can proactively identify and manage workplace hazards before they cause injury or illness, improving sustainability and the bottom line. Participating in Safe + Sound Week can help get your program started, energize an existing one or provide a chance to recognize your safety successes.

Learn more: www.osha.gov/safeandsoundweek



Free on-site safety and health consultations available

Minnesota OSHA (MNOSHA) Workplace Safety Consultation offers free consultation services, where employers can find out about potential hazards at their worksites, improve safety management systems and apply for grants to abate safety standards.

The program targets small, high-hazard businesses. It is separate from Minnesota OSHA Compliance inspection activities and no citations are issued as part of a consultation visit.

Learn more and request a consultation

Web: www.dli.mn.gov • Email: osha.consultation@state.mn.us • Phone: 651-284-5060



Construction work pauses during national fall-prevention stand-down

Construction employers participating in the 2022 National Stand-down to Prevent Falls in Construction, May 2 through 6, paused their workday to talk about fall prevention in construction and discuss topics such as ladder safety, scaffolding safety and roofing work safety. Some of the participating construction employers in Minnesota, sent photos of their event to Minnesota OSHA Compliance. The stand-down is designed to raise awareness among employers and workers about preventing falls, which account for the highest number of deaths in the construction industry. Learn more on the [MNOSHA Compliance: Falls](#) webpage.



Kraus-Anderson Construction Co. • North Loop Green • Minneapolis



RJM Construction • Animal Emergency and Referral Center (AERC) of Minnesota • Oakdale, Minnesota



Ryan Companies US • Belle Project • Woodbury, Minnesota



Ryan Companies US • Highland Bridge Project • St. Paul, Minnesota

SOII, CFOI interactive chart packages bring statistics to life

By Brian Zaidman, Research and Statistics

The U.S. Department of Labor’s Bureau of Labor Statistics has online chart sets available for the Survey of Occupational Injuries and Illnesses (SOII) and for the Census of Fatal Occupational Injuries (CFOI). These are interactive charts that display the underlying statistical values when you hover over the display. You can also to switch from displaying the number of cases to the rate of cases or to other options available in the chart legend. A table showing the values used in the chart is also available.

For the industry charts, only national statistics are available, but they allow users to drill down from the sectors to the detailed industries. Another set of charts shows the summary case numbers and case rates for each case type by state. The SOII charts are available at www.bls.gov/charts/injuries-and-illnesses/total-nonfatal-work-injuries-and-illnesses-by-year.htm#, which opens to the first chart. The list of SOII charts is shown below.

- Choose another chart
- Total nonfatal work injuries and illnesses, by year
- Nonfatal work injuries and illnesses rates, by year and case type
- Number and rate of nonfatal work injuries and illnesses, by industry
- Number and rate of nonfatal work injuries, by industry
- Number and rate of nonfatal work illnesses, by industry
- Number and rate of nonfatal work injuries, by detailed industry
- Number and rate of nonfatal work illnesses, by detailed industry
- Number of nonfatal work injuries and illnesses, by state and case type
 - Total recordable cases
 - Cases involving days away from work, job restriction, or transfer
 - Cases involving days away from work
 - Cases involving days of job transfer or restriction
 - Other recordable cases
- Rate of nonfatal work injuries and illnesses, by state and case type
 - Total recordable cases
 - Cases involving days away from work, job restriction, or transfer
 - Cases involving days away from work
 - Cases involving days of job transfer or restriction
 - Other recordable cases

The CFOI charts are located at www.bls.gov/charts/census-of-fatal-occupational-injuries/number-of-fatal-work-injuries-by-employee-status-self-employed-wage-salary.htm#. All of the charts show national data except for a map showing the number of fatal occupational injuries by state. The list of CFOI charts is shown below.

- Choose another chart
- Number of fatal work injuries by employee status
- Number of fatal work injuries by race or ethnic origin
- Number of fatal work injuries by age group
- Rate of fatal work injuries per 100,000 full-time equivalent workers by age group
- Fatal work injuries to Hispanic or Latino workers
- Fatal occupational injuries by event
- Fatal work injury counts by event, recent years
- Number and rate of fatal work injuries, by industry sector
- Number and rate of fatal work injuries, civilian workers, by major occupational group
- Distribution of fatal injury events by gender of worker
- Fatal occupational injuries in the private sector mining, quarrying, and oil and gas extraction industries
- Civilian occupations with high fatal work injury rates
- Number of fatal work injuries by state, map
- Sources of data on fatal work injuries

MNOSHA Compliance signs safety, health partnerships



The Boldt Company and VEIT • Mayo Utility, Pedestrian and Service Tunnel • Rochester, Minnesota



Danny's Construction Company, Hunt Electric, PCL Construction Services Inc. and VEIT • Minnesota Zoo Treetop Trail • Apple Valley, Minnesota



Greystone Construction • OMRV Independent Living • Shakopee, Minnesota



Lyon Contracting • Hayden Grove • St. Anthony, Minnesota

Minnesota OSHA (MNOSHA) Compliance recently signed eight Level 3 Cooperative Compliance Partnerships on four projects. Six of the partnerships were signed under the Construction Health and Safety Excellence (CHASE) Minnesota agreement, between Associated General Contractors (AGC) of Minnesota and MNOSHA Compliance, and two were signed under the agreement between the Minnesota Chapter of Associated Builders and Contractors (MN ABC) and MNOSHA Compliance.

Level 3 is the peak level of MNOSHA Compliance partnerships, with applicants striving to be an industry leader with very comprehensive safety and health programs. The partnerships acknowledge the importance of providing a safe, healthful work environment in construction and seek a working relationship that creates mutual trust and respect among all parties – including project owners and construction workers – involved in the construction process. Participants may achieve three award levels: basic, intermediate and peak.

Complete information about MNOSHA's Cooperative Compliance Partnerships is online at:

- www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-partnership-programs.

DLI thanks employers for participation in injury, illness survey

The Minnesota Department of Labor and Industry (DLI) thanks all of the employers that have participated so far in the 2021 Survey of Occupational Injuries and Illnesses (SOII) – but there is still time to submit data. The SOII is a mandated survey for all establishments that are sampled to participate. Participation in the SOII enables the publication of injury and illnesses rates. The data collection process is still ongoing.

For those employers that were sampled to participate and have not reported for the survey, the U.S. Bureau of Labor Statistics (BLS) is accepting data by phone, by email, by fax and via the data collection portal at <https://idcf.bls.gov>. Employers have until July 10 to provide data via the BLS portal and July 12 to provide data by phone, email or fax.

Questions about filling SOII data can be directed to 651-284-5428 or dli.research@state.mn.us.



Reviewing the basics: Recordkeeping training sessions offered in October

Maintaining an accurate OSHA log of recordable work-related injuries and illnesses is an important skill that benefits employers, workers, safety professionals and government agencies. The Department of Labor and Industry is offering two free, introductory-level training sessions about OSHA recordkeeping in October, one of the sessions may be in-person only. **Registration will be required.**

Dates, registration

- **Thursdays, Oct. 14 and Oct. 21**
- [Registration available soon](#)

Topics

- Recordability of injuries and illnesses
- Differences between OSHA cases and workers' compensation claims
- Classifying cases
- Counting time
- Privacy cases
- How many logs to keep
- Maintaining logs
- Creating a log summary
- Reporting log data to OSHA
- Recording COVID-19 cases



More information

For more information about the training session, visit www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-recordkeeping-standard.

Minnesota OSHA's calendar of events*

August 2022

Aug. 19 **Occupational Safety and Health Advisory Council**
www.dli.mn.gov/about-department/boards-and-councils/occupational-safety-and-health-advisory-council

September 2022

Sept. 9 **Occupational Safety and Health Review Board**
www.dli.mn.gov/about-department/boards-and-councils/occupational-safety-and-health-review-board

Sept. 13 **Construction Seminar: Topic to be determined**
www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-construction-seminars

November 2022

Nov. 15 **Construction Seminar: Topic to be determined**
www.dli.mn.gov/business/workplace-safety-and-health/mnosha-compliance-construction-seminars

Nov. 18 **Occupational Safety and Health Advisory Council**
www.dli.mn.gov/about-department/boards-and-councils/occupational-safety-and-health-advisory-council

December 2022

Dec. 2 **Occupational Safety and Health Review Board**
www.dli.mn.gov/about-department/boards-and-councils/occupational-safety-and-health-review-board

****All dates subject to change.***

See more at www.dli.mn.gov/about-department/about-dli/events-minnesota-osh