

Promoting safety and health to young workers

A joint effort of DLI's MNOSHA Workplace Safety Consultation and Labor Standards units

Young workers are some of the most vulnerable to workplace injuries and illnesses. The Minnesota Department of Labor and Industry (DLI) encourages employers to promote workplace safety and health, as well as worker rights and responsibilities, to teens entering or returning to the workforce this summer. With the right training and precautions, teens can have a safe and rewarding work experience.

Common hazards for young workers

- Falls (slip, trip, fall) due to slippery floors and working at heights
- Caught in machine
- Contact with live electrical
- Burns, fire
- Motor-vehicle and equipment operation (food delivery, grocery)
- Heavy lifting
- Workplace violence (retail – convenience store, fast-food restaurant)
- Exposure to hazardous chemicals (janitorial/clean-up, agriculture)
- Heat exposure (outdoor work, industry)
- Noise

Common injury causes for young workers

- Lack of adequate equipment, inadequate or lack of personal protective equipment, or insufficient machine guarding
- Unfamiliarity with work requirements and safe operating procedures
- No established policies that consider worker safety
- Lack of adequate training about policies and about proper use of equipment
- No accountability to ensure appropriate procedures are established and followed



Labor laws for teen workers – www.dli.mn.gov/LS/TeenWorkers.asp

Both federal and state laws govern minor workers. When both laws apply, employers must comply with the law that is most protective to the minor. Federal child labor information can be found at www.dol.gov/whd/childlabor.htm.

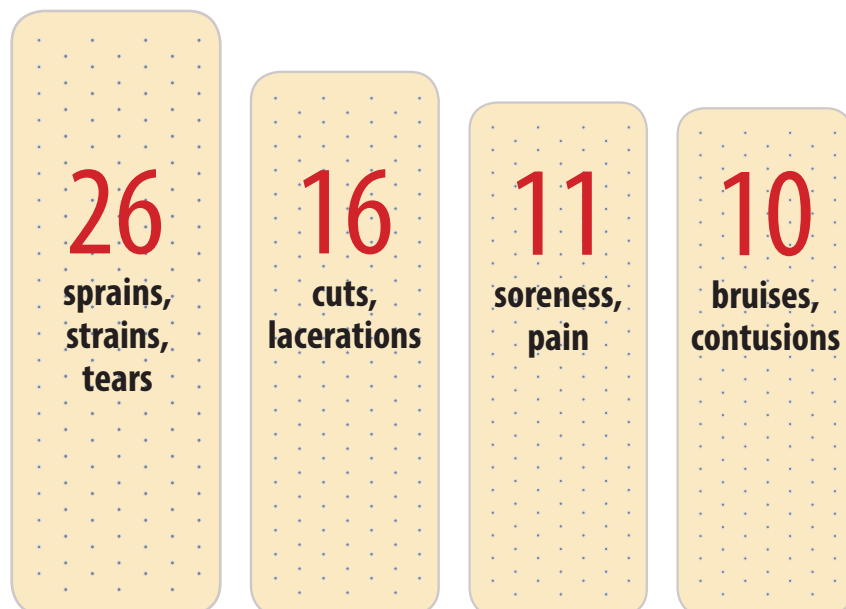
A minor younger than 16 years old may not:

- work before 7 a.m. and after 9 p.m.; nor
- work for more than 40 hours a week or more than eight hours in a 24-hour period.

A minor younger than 16 years old is prohibited from:

- operating machinery, power-driven mowers or garden equipment, drill presses, grinders, lathes, portable power-driven tools, meat slicers, vehicle lifting apparatuses in service stations, welding, patient handling in hospitals and nursing homes; and

Nature of illness or injury by percentage



Days-away-from-work cases, 16- to 19-year-olds, U.S., 2012
Source: Survey of Occupational Injuries and Illnesses, BLS

- doing agricultural tasks declared by the U.S. Secretary of Labor to be particularly hazardous

Children younger than 16 years old *can* be hired to complete common household chores such as lawn mowing. Private companies cannot hire children younger than 16 years old to mow lawns on or around company grounds.

A minor 16 to 17 years old may not work:

- after 11 p.m. on evenings before school days or before 5 a.m. (written parental permission can extend by one half-hour the start and end times for work).

A minor 16 to 17 years old is prohibited from:

- working where chemicals or other substances are present in hazardous quantities;
- operating power-driven machinery, including a forklift, meat saw, grinders, milling machines, press brake and woodworking machinery;
- operating a tractor of more than 20 power-take-off (PTO) horsepower or connecting or disconnecting implements or parts to the tractor; and
- handling or applying agricultural chemicals with toxicity category I (label has “Danger” or “Poison” with a skull and crossbones on it) or toxicity category II (label has “Warning” on it).

If you have questions about labor laws, contact Labor Standards at (651) 284-5070, 1-800-342-5354 or dli.laborstandards@state.mn.us.

MNOSHA safety and health standards

– www.dli.mn.gov/MnOsha.asp

Rights and duties of employees of all ages:

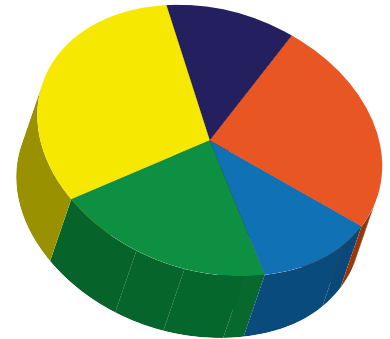
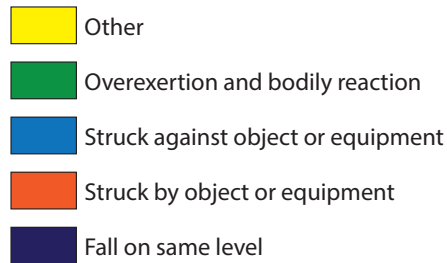
- you must comply with MNOSHA standards;
- you have the right to request a safety or health inspection; and
- you have the right to refuse to work under conditions you believe present an immediate danger of serious physical harm or death.

If you have questions about workplace safety or health, contact Minnesota OSHA Workplace Safety Consultation at (651) 284-5060, 1-800-657-3776 or osha.consultation@state.mn.us.

Workplace heat hazards

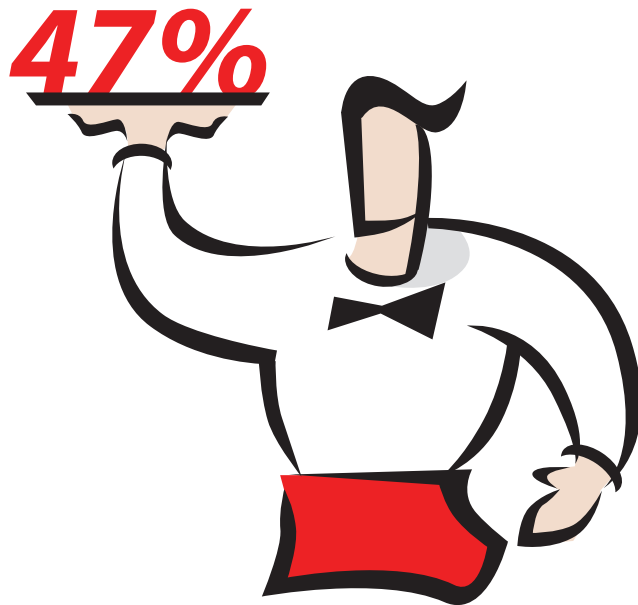
Heat stress results from a combination of internal (body) heat production and external heat exposure from the environment and can occur year-round in foundries, kitchens or laundries, or only a few days during the summer in

Event or exposure



Days-away-from-work cases, 16- to 19-year-olds, U.S., 2012
Source: Survey of Occupational Injuries and Illnesses, BLS

Percent of injured workers, service occupations



Days-away-from-work cases, 16- to 19-year-olds, U.S., 2012
Source: Survey of Occupational Injuries and Illnesses, BLS

almost any work setting. High temperature, humidity, radiant heat, minimal air movement and clothing contribute to heat stress. It affects the body's cooling mechanism to effectively dissipate heat via blood brought to skin and perspiration. The process of adjusting to a hot environment – heat acclimatization – takes about 10 days. Body temperature, pulse rate and general discomfort are most noticeable during the first days, so avoid excessive physical exertion during the initial days of working in hot conditions.

Prevention requires routine fluid intake, rest in a cool area and acclimatization, particularly as temperatures approach 85 to 95°F and relative humidity exceeds 70 percent. As a general rule, rest every two hours for light-work activities (reduce the time when temperatures reach or exceed 95°F and there is high relative humidity of 70 percent or more).

For more, view a PowerPoint presentation at www.dli.mn.gov/WSC/PDF/heatstress_pptpresen.pdf.

Heat stress can result in several illnesses – from the more minor transient heat fatigue to the medical emergency of heat stroke.

Heat cramps – dehydration is a factor; may be due to loss of salt from sweating

- Symptoms: painful muscle spasms (legs, arms, abdomen)
- Treatment: rest, drink water and eat salty foods
- Prevention: ensure adequate water intake and adequate salt at meals; no need for salt tablets, diluted sports drinks provide adequate amount of salt

Heat exhaustion – dehydration that causes blood volume to decrease excessively

- Symptoms: fatigue, weakness, dizziness, faintness, nausea, headache, moist-clammy skin, pale or flushed appearance, rapid pulse, normal to slightly elevated temperature
- Treatment: move victim to a cool area, have them rest and drink fluids
- Prevention: acclimatization, drink water, rest breaks in cool area

Heat stroke – partial to complete failure of the body to regulate heat (can't sweat)

- Symptoms: hot, dry skin; red, mottled or bluish skin; confusion or loss of consciousness; convulsions; rapid pulse; and elevated temperature
- Treatment: a life-threatening situation requiring immediate action; call emergency medical assistance; cool the victim by moving him or her to a shaded area; soak clothing and skin with cool water; and fan to initiate evaporation
- Prevention: acclimatization, drinking plenty of water and taking rest breaks in a cool area

Other common workplace hazards for teen workers

Fainting – blood volume decrease, pooling of blood in vessels of the skin and lower body

- Symptoms: dizziness/light-headedness (symptoms of heat stress may precede fainting)
- Treatment: move victim to cool area, have them rest and drink fluids
- Prevention: moving around versus standing still can reduce the possibility

Overexertion – a major cause of inflammation of joints and ligaments from excessive physical effort

- Prevention: pay attention to how objects are lifted, use legs not waist/back; be sure to have a firm footing, with feet square with shoulders; don't twist, turn feet toward object to be lifted; and avoid lifting more than 35 pounds, if you need to get assistance

Tick-borne disease – such as Lyme disease, anaplasmosis

- Prevention: inspect for ticks and symptoms of tick bites routinely

Exposure – working with tools or in areas where personal protective equipment is needed

- Prevention: sturdy footwear; work gloves; sunscreen; light-colored cotton shirts with sleeves; cap; hearing protection when high noise source is present; and respiratory protection in dusty environments (N95 disposable particulate respirator)

Agricultural machinery – do not operate without proper training

- Prevention: proper training; maintain all safeguards; do not attempt to unjam equipment while it is running; and know where electrical power lines are located

Chemicals (pesticides) – hazardous and toxic substances

- Prevention: after exposure to chemicals, wash your hands before eating or drinking anything; avoid direct contact; and keep work and street clothes separate

References and more information

- Hazard alerts: Grain bins – www.dli.mn.gov/OSHA/HazardAlerts.asp
- Teen workers – www.dli.mn.gov/LS/TeenWorkers.asp
- Youth rules for kids at work – www.dli.mn.gov/LS/PDF/youthrules.pdf
- Restaurant Safety for Young Workers – www.osha.gov/SLTC/restaurant
- Youth in Agriculture – www.osha.gov/SLTC/youth/agriculture
- Young Workers You Have Rights! – www.osha.gov/youngworkers