

## Heat-Related Illnesses and First Aid

### OSHA Resources

Several heat-related illnesses can affect workers. Some of the symptoms are non-specific. This means that when a worker is performing physical labor in a warm environment, any unusual symptom can be a sign of overheating.



Heat-Related Illness	Symptoms and Signs
Heat stroke	Confusion Slurred Speech Unconsciousness Seizures Heavy sweating or hot, dry skin Very high body temperature Rapid heart beat
Heat exhaustion	Fatigue Irritability Thirst Nausea or vomiting Dizziness or lightheadedness Heavy sweating Elevated body temperature or fast heart rate
Heat cramps	Muscle spasms or pain usually in legs, arms, or trunk
Heat syncope	Fainting Dizziness
Heat rash	Cluster of red bumps on skin Often appears on neck, upper chest, and skin folds
Rhabdomyolysis (muscle breakdown)	Muscle pain Dark urine or reduced urine output Weakness

Employers and workers should become familiar with the heat symptoms. When any of these symptoms is present, promptly provide first aid. Do not try to diagnose which illness is occurring. Diagnosis is often difficult because symptoms of multiple heat-related illnesses can occur together. Time is of the essence. These conditions can worsen quickly and result in fatalities.

**When in doubt, cool the worker and call 911.**

## First Aid

OSHA's [Medical Services and First Aid standard](#) and the [Medical Service and First Aid in Construction](#) require the ready availability of first aid personnel and equipment. First aid for heat-related illness involves the following principles:

- Take the affected worker to a cooler area (e.g., shade or air conditioning).
- Cool the worker immediately. Use active cooling techniques such as:
  - Immerse the worker in cold water or an ice bath. Create the ice bath by placing all of the available ice into a large container with water, standard practice in sports. **This is the best method to cool workers rapidly in an emergency.**
  - Remove outer layers of clothing, especially heavy protective clothing.
  - Place ice or cold wet towels on the head, neck, trunk, armpits, and groin.
  - Use fans to circulate air around the worker.
- Never leave a worker with heat-related illness alone. The illness can rapidly become worse. Stay with the worker.
- When in doubt, call 911!



Confusion, slurred speech, or unconsciousness are signs of heat stroke. **When these types of symptoms are present, call 911 immediately and cool the worker with ice or cold water until help arrives.**

Workers who are new to working in warm environments are at increased risk of heat-related illness. See the [Protecting New Workers](#) section of this website for more details. Especially **during a worker's first few days, absolutely all symptoms should be taken seriously. Workers who develop symptoms should be allowed to stop working. They should receive evaluation for possible heat-related illness.**

### Resources:

OSHA Heat Related Topics: <https://www.osha.gov/heat-exposure/illness-first-aid>



*Safety Talks are published by NDLTAP in cooperation with the National Local Technical Assistance Association and participating partner organizations.*



## Safety Talk Sign-in Sheet Topic Heat-Related Illness and First Aid

Agency: \_\_\_\_\_

Crew: \_\_\_\_\_

Supervisor/Talk Leader: \_\_\_\_\_

Date: \_\_\_\_\_

Print Name

Signature

1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____
9. _____	_____
10. _____	_____
11. _____	_____
12. _____	_____

NDSU does not discriminate in its programs and activities on the basis of age, color, gender expression/identity, genetic information, marital status, national origin, participation in lawful off-campus activity, physical or mental disability, pregnancy, public assistance status, race, religion, sex, sexual orientation, spousal relationship to current employee, or veteran status, as applicable. Direct inquiries to: [Equal Opportunity and Title IX Compliance Office/](#) Director Heather Higgins-Dochtermann (Old Main 201, NDSU Main Campus, Fargo, ND 58108, 231-7107; [heather.higginsdocht@ndsu.edu](mailto:heather.higginsdocht@ndsu.edu)).