



Heat Exposure on the job

Information for Employers and Workers

Summers in PA can be hot, and Pennsylvania will likely continue to experience extended warm months, record-breaking heat, more frequent heat waves lasting longer, and higher temperatures lasting later into the night. These increases can threaten worker health and decrease overall productivity in the workplace.

WHO DOES HEAT IMPACT?

Work performed in higher temperatures can cause heat-related illnesses and associated injuries, especially for those individuals working outdoors and individuals working in indoor spaces with heated processes and/or inadequate temperature control.



Heat-related illnesses and injuries may be more common in certain industries, but no part of Pennsylvania's workforce is immune.

THE "WEIGHT" OF MULTIPLE SOURCES OF HEAT

When workers experience stress from heat, it is common that they experience it from multiple sources, increasing the likelihood of a heat-related illness or associated injury.

In addition to environmental heat and humidity, a worker may experience combined heat exposure from:

- Metabolic heat from physical exertion
- Radiant heat from sources such as ovens, furnaces, or stoves in indoor settings, and hot asphalt, other reflective surfaces or heavy machinery in outdoor settings
- Heat from PPE or heavy clothing

Each heat source adds more stressors, making it difficult for the body to cool itself.

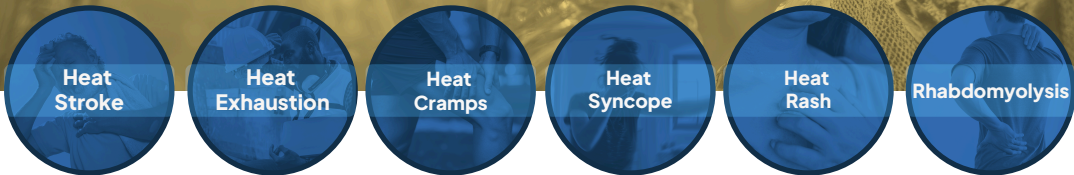


HEAT STRESS

is the net heat load to which a worker is exposed. Physical exertion, environmental factors, and clothing worn all contribute to heat stress.

HEAT STRAIN

is the body's physiological response to heat stress. Elevated core body temperature may cause the following illnesses:



HEAT-RELATED ILLNESSES AND ASSOCIATED INJURIES

ASSOCIATED INJURIES

When workers experience symptoms of a heat-related illness, they may experience other workplace injuries like falls, dizziness, or lacerations. These types of injuries can range from minor to severe. In 2024, the Workers' Compensation Research Institute found that heat impairs the perceptual, motor, or cognitive abilities of workers, leading to accidents.

HEAT-RELATED ILLNESS

Heat-related illnesses include heat stroke, heat exhaustion, heat cramps, heat syncope, heat rash, and rhabdomyolysis. These are well-defined and clearly linked to heat exposure. They range from mild to severe, but even a mild case of heat cramps can quickly turn into a life-threatening situation if not treated promptly and properly.



ACCLIMATIZATION

Acclimatization is a way to protect new and returning workers from heat-related illnesses and associated injuries. OSHA suggests that to reduce the impact heat stress will have on the core body temperature, employers should use a structured program to help workers adapt to working in the heat.

According to OSHA, an effective heat acclimatization program increases the time each day, over a seven-to-14-day period that an unacclimated worker is exposed to heat stress while the worker conducts normal work activities. Also, acclimatized workers who are not exposed to heat stress for a week or more may need some time to re-acclimatize — typically two or three days.

