

Heat Related Illness and Injury Prevention

Employees working outdoors in hot weather are affected by both air temperature and humidity. The heat index is a single value that takes both temperature and humidity into account; the higher the heat index, the hotter the weather feels. The heat index is a better measure than air temperature alone for estimating the risk to workers from environmental heat sources.



Heat-related illness can be prevented:

Employers have a duty to protect workers from recognized serious hazards in the workplace, including heat-related hazards. Workers performing strenuous activity, workers using heavy or non-breathable protective clothing, and workers who are new to an outdoor job need additional precautions beyond those warranted by heat index alone.

Workers new to outdoor jobs are most at risk for heat-related illnesses. OSHA investigations have shown that heat-related illnesses follow these trends:

- 50% involved employees on their first day of work
- 80% involved employees on the job for four or fewer days.

That's why it's important to gradually increase the workload. Allow more frequent breaks to help new workers, and those returning to a job after time away build up a tolerance for hot conditions.

Humidity Matters:

Relative humidity is a measure of the amount of moisture in the air. Sweat does not evaporate as quickly when the air is moist. Since sweating is one of the ways the human body cools, we feel hotter when humidity is high.

Low humidity can also be a problem for outdoor workers in hot, desert-like climates. Sweat evaporates very rapidly in low humidity, which can lead to severe dehydration if a person does not drink enough water throughout the day

Using the Heat Index to Protect Workers:

The heat index can be used to help determine the risk, what actions are needed, and when those actions are triggered.



Actions For:

- [Heat Index Less Than 91°F - Low Risk](#)
- [Heat Index is 91°F to 103°F - Moderate Risk](#)
- [Heat Index is 103°F to 115°F - High Risk](#)
- [Heat Index Greater Than 115°F - Extreme Risk](#)

The steps employers should take in response to an elevated heat index are the same steps that they would follow to address other hazards:

- Develop an illness prevention plan based on the heat index
- Train your workers how to prevent heat-related illness
- Track the worksite heat index daily; communicate it and the required precautions to workers
- Revise it throughout the summer

The individual responsible for the plan should be on-site, where the workers are. On-site monitoring allows accurate determination of heat stress. When this is possible, employers should estimate heat stress using the best available methods for remote estimation.

Source: <https://www.osha.gov/heat-exposure/planning>