



Heat-Related Injuries and Barriers to Heat Program Implementation

Heatwaves, Traumatic Injuries, and Barriers to Heat Safety Program Implementation

Miranda Dally. CPWR Small Study, 2025.

Overview

Rising global temperatures pose safety risks for outdoor workers. Although construction workers face significant heat-related hazards, research on workplace heat safety remains limited. Prior studies have linked higher temperatures to increased injuries, but gaps exist in understanding barriers to effective heat safety implementation. This study examined the association between temperature and traumatic injury risk among construction workers in Colorado, as well as current workplace heat safety programs. Through a mixed-methods approach of meteorological data, workers' compensation data, interviews with managers, and surveys of field workers, researchers analyzed safety trends and explored safety training, acclimatization practices, and workplace culture.

Key Findings

- The research highlighted challenges in heat safety adoption, including varying levels of awareness, difficulties in program implementation, and the importance of peer support in compliance.
- Each 1°C increase in weekly mean temperature correlated with a 2.4% rise in traumatic injury claims among Colorado construction workers.
- Higher temperatures were not significantly associated with increased workers' compensation claim costs.
- No significant association was found between relative humidity and injury claims.
- Workplaces have struggled to implement acclimatization programs effectively.
- There are mixed thoughts on the importance of heat as a safety concern and the effectiveness of heat safety training.
- Strong safety workplace culture improves heat safety compliance.
- Safety programs often do not extend to subcontractors, leading to inconsistent workplace protections.

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Read the report:

<https://bit.ly/4lutoLPTBA>

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