Heat Exposure and Injury Risk

A Case-Crossover Study of Heat Exposure and Injury Risk in Outdoor Agricultural Workers

PLoS ONE, 2016
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Key Findings

- The risk of traumatic injury in outdoor agricultural workers increased with increasing heat exposure.
- A higher risk of injury associated with heat exposure was found for workers performing June – July cherry harvest duties than for the apple harvest from August – October.
- Cherry harvest injuries were largely due to falls, and more likely to involve multiple body parts and occur in workers with a shorter duration on the job, compared to all injuries.
- The increased injury risk dropped slightly for the highest Humidex category, and injuries occurring after 12:30 p.m. were less common on the hottest days, possibly indicating changes in work practices in extreme heat.

Impact

Agricultural workers face an increased risk of traumatic injury as their heat exposure increases. Heat exposure prevention efforts directed at workers doing physically intense jobs in warm weather should include training and information about injury prevention, in addition to heat-related illness. The expected increase in extreme heat events due to climate change, coupled with the relationship between traumatic injury and heat exposure, underlines the importance of continued efforts to control worker heat exposure.

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http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0164498

Funding provided in part by the National Institute for Occupational Safety and Health (NIOSH), Grant # 5K01OH010672-02.

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