New Study Looks at Impact of Climate Change on Heat Stress in Workers

In studying climate change, scientists are predicting that not only will temperatures rise, but also heat waves and heat emergencies will be longer and more intense. What do these changes mean for workers'

High temperatures can expose workers to the risk of heat stress. So longer and more frequent heat waves, especially when accompanied by high humidity, will mean increased exposure for workers to conditions such as heat stroke and heat exhaustion.

The IRSST recently published a report that documents the association between the summer temperatures and occupational injuries accepted for workers' comp in Qu□bec. The researchers looked at CSST-accepted occupational injuries suffered by workers between May 1 and Sept. 30 of each year from 1998 to 2010, inclusive. The study months cover the period when hot weather can occur in the province.

The study found that daily counts of accepted injury claims for heat-related health problems such as sunstroke, fainting, etc. increased an estimated 42% for every 1øC increase in maximum daily temperature. The association was even greater with high humidity levels.

A total of 259 heat-related injuries, including six

fatalities, were accepted by the CSST during the study's time periods. Of those injuries:

- None occurred when the maximum daily temperature was below 10øC
- Close to a third of the injuries occurred when the temperature was above 30øC
- Most injuries occurred on weekdays in July and August
- The vast majority of workers whose injury claims were accepted for compensation were men, between ages 25 and 44
- Around 23% of the injuries occurred in industries where most work is done outdoors, such as construction; forestry and logging; transportation and warehousing; agriculture, and mining, quarrying and oil and gas extraction
- The occupations that accounted for the highest proportion of accepted injuries were all labouring and materials-handling jobs, including those in metal processing, along with firefighters and truck drivers.

Bottom line: Given that summer temperatures are expected to increase in coming years, it's even more important than ever to implement safety measures specifically targeting those workers most likely to suffer from heat effects.

For more on heat stress and climate change, see the following OHS Insider resources:

- A report on the impacts of climate change on human health, which found that increasing concentrations of GHGs lead to an increase of both average and extreme temperatures
- Tips for protecting workers from heat stress
- How climate change increases OHS risks to workers
- Why new and young workers are especially vulnerable to heat stress
- A heat exhaustion safety talk handout

- A heat stress self-audit checklist.

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Want access to all the Canadian safety and environmental compliance resources that the OHS Insider has to offer on heat stress and other topics, such as due diligence, fall protection, GHG reporting requirements and WHMIS 2015´ Sign up for a free trial membership now! [/box]