Ryerson University

Centre for Urban Energy

Research case study > policy and regulation

Reducing shoulder injuries among Toronto Hydro workers

Version 1 (updated May 9, 2017)

Context: Work-related shoulder pain is a health and safety challenge in many workplaces, especially where jobs require strenuous physical exertion. Those at high-risk include certified power cable and certified power line workers due to overhead work and heavy loads.

Problem: Prevention of shoulder and lower-back injuries in this unique workplace environment is essential in addition to identifying the factors that contribute to should pain to create mitigating engineering controls and policies.

Solution: The introduction of effective, safe and ergonomic controls through understanding the biomechanical load demands on shoulders is paired with the development of an innovative tool to help workers handle chamber lids that weigh more than 200 pounds.

Impact: Implementation of safer and more ergonomic workplace conditions would increase productivity and reduce lost time, injury claims, and economic loss for Toronto Hydro while improving efficiency and job success.

CUE's role: CUE researchers worked with Toronto Hydro to identify causal factors leading to shoulder and lower back injuries. They also designed a tool to reduce physical exertion to improve safety and reduce risk of injury for workers.

✓ *Completed*

Sponsors:
Toronto Hydro

Timeline:
January 2013–March 2016

Research Team:
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Key stats

1,068 THESL trade and technical professionals
5.2x Risk of shoulder injury over lower back
53% Lower recordable injuries