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In this Section

[Main Menu and Search](#)

[Browse by Day](#)

[Browse by Program](#)

[Author Index](#)

[Disclosure Index](#)

[Personal Scheduler](#)

[Browse Handouts](#)



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230222 A case-crossover study of occupational laceration injuries in pork processing

Monday, November 8, 2010 : 1:15 PM - 1:30 PM

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Objectives: Meatpacking remains a hazardous but understudied industry. We employed a case-crossover study design to estimate associations between transient exposures such as equipment malfunction, performing an unusual work task, or rushing, and occurrence of laceration injuries. **Methods:** Injured workers were recruited from two pork-processing plants in the Midwest. A telephone interview was conducted within 14 days of the laceration to collect information on fixed and transient exposures that may have contributed to the injury. Case-crossover methodology was used to evaluate case and control data within the same subject, controlling for between-subject confounding. A Mantel-Haenszel estimator for person-time data was used to estimate the relative risks of injury and transient exposures of interest. **Results:** Of the 362 workers who had experienced lacerations between April 2006 and October 2007, 153 (42%) were interviewed (74% male, 41% Hispanic). Forty-eight percent were injured by a knife or knife-like object such as scissors or a band saw. Other sources of lacerations included sharp edges and hooks. Tool sharpening was associated with the highest relative risk of laceration (RR 8.4, 95%CI: 5.4-12.8) followed by slipping (RR 74.8, 95%CI:30.5-183.3), equipment malfunction (RR 3.8, 95%CI: 2.8-5.3), and performing an unusual task (RR 3.7, 95%CI: 2.6-5.2). Being tired, distracted, or rushing were not significant risk factors for laceration. **Conclusions:** Results suggest that some modifiable work equipment and work practice factors may increase the risk of a laceration injury. Meatpacking needs more research attention to effectively reduce lacerations in this highly hazardous industry.

Learning Areas:

Occupational health and safety

Learning Objectives:

1. Describe laceration injuries in meatpacking 2. Discuss transient occupational exposures associated with increased risk of laceration injuries

Keywords: Occupational Injury and Death, Occupational Exposure

Presenting author's disclosure statement:

Qualified on the content I am responsible for because: I participated data collection, analysis, and interpretation

Any relevant financial relationships? No

I agree to comply with the American Public Health Association Conflict of Interest and Commercial Support Guidelines, and to disclose to the participants any off-label or experimental uses of a commercial product or service discussed in my presentation.

Back to: **3232.0: Updates in Occupational Epidemiology**