

Followup Study of Musculoskeletal Injuries Among Construction Workers. *Katherine L. Hunting, Judith T. L. Anderson (George Washington University, Washington, DC, USA) and Laura S. Welch (Washington Hospital Center, Washington, DC, USA)

Construction workers experience a high prevalence of work-related musculoskeletal symptoms. Much of the research on these injuries focuses on chronic risk factors such as repetitive movements, frequent heavy lifting, and sustained awkward posture. However, evidence suggests that acute traumatic injuries also contribute to chronic musculoskeletal symptoms. Since May 1996, we have interviewed 143 construction workers with acute soft-tissue musculoskeletal injuries, such as sprains, strains, muscle or tendon tears, and dislocations. Baseline telephone interviews are conducted four to twelve weeks after the injury. We have also interviewed a trade- and age-matched comparison group of 214 workers who have had other types of injuries. The interview focuses on symptoms at the location of the musculoskeletal injury (the index location), as well as recovery patterns, light duty, lost worktime, injury history, and job tasks. All injured workers are identified from an ongoing emergency department-based occupational injury surveillance system.

Of the injured workers who we attempted to contact at baseline, approximately 57% completed an interview. The remaining 43% either refused to participate (11%) or could not be reached (32%). Non-participation was influenced by injury characteristics as well as by the trade of the injured worker.

Detailed descriptions provided by workers were valuable for understanding injury mechanisms. The WMD injuries, though acute in nature, were often related to ergonomic risk factors such as lifting heavy materials or exerting force from awkward working positions.

The baseline interviews identified differences in injury history between the two groups. For example, workers with musculoskeletal injuries were more likely than comparison workers to have experienced a previous acute injury to the index body location (27% versus 21%). These differences were seen for most body locations, including the low back, knee, ankle/foot, and elbow/wrist/hand/fingers, but not for the neck/upper back/shoulder.

At the time of the baseline interview (median 7 weeks after injury), 64% of the workers with musculoskeletal injuries still had pain at the injured location. The degree and frequency of pain was significant: of 143 interviewed workers, 26% rated their discomfort as moderate, and 15% reported severe discomfort in the week prior to the interview. Thirty-eight percent were still experiencing pain almost daily or constantly. Seventeen percent said that their symptoms at the site of injury had not improved since their emergency room visit. Ongoing symptoms affected work as well. Workers with musculoskeletal injuries were more likely than the comparison group to miss work (63% versus 44%) and more likely to be assigned modified duty at work (62% versus 49%).

This longitudinal study also follows both groups of workers one year and two years after the injury. One hundred and fifty six one-year interviews are completed to date, with at least 30 additional completions projected. From one-year interviews, we can assess long-term sequelae of musculoskeletal injuries, including symptoms, probability of re-injury, changes in jobs, and changes in work practices.

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