

## **Self-reported musculoskeletal symptoms and perceived job-related characteristics among mason tenders.**

### **Abstract**

The study was a part of a research project focused on the primary prevention of low back pain among construction laborers represented by the Laborers' International Union of North America (LIUNA) in New York State. Specific aim of the project was to develop and implement a pilot program teaching union trade instructors to incorporate ergonomics principles, ergonomics hazards recognition, and safe materials handling practices in their regular training curriculum. The need for the project was underscored by the fact that the lower back is the most frequently injured body part amongst construction laborers and is the most frequent source of pain complaint, lost work time and early retirement. There is substantial evidence that musculoskeletal injuries and disorders constitute the major problem in construction. While certain construction trades such as bricklayers, carpenters, plumbers and electricians have been studied quite extensively others, including mason tenders, demolition workers, and general laborers have not. In New York State the mason tenders trade includes mason tenders, demolition workers and general laborers. The physical work load of this category of construction workers is extremely high, lifting and carrying is mostly manual work, limits for manual lifting are exceeded on a daily basis, pushing and pulling are applied to move or position loads, repetitive movements are unavoidable part of the job. In the first phase of the project the musculoskeletal symptom survey was conducted to describe the demographic and musculoskeletal injury characteristics of mason tenders and job-related characteristics they perceived as contributing to the musculoskeletal symptoms. The musculoskeletal symptom questionnaire was administered to 444 mason tenders at the LIUNA membership meeting. The majority of the mason tenders filled out the questionnaires on the spot, the rest completed them at home and mailed back in self-addressed, postage-paid envelopes. The return rate was 70.2%. The results of questionnaire administration revealed that during the year prior to the survey 65% of the mason tenders experienced pain in the low back region, 35% of them were absent from work and 45% of them visited a physician due to their medical conditions. The job-related activities perceived by the mason tenders as problematic with respect to their musculoskeletal symptoms included the following: bending or twisting the back in awkward way; working in the same position for long periods; working over the head or away from the body; working near or at physical limits; working in awkward position, and continuing to work when in pain. Based on the results of the study, the primary prevention program can be specifically tailored to address the trade-specific hazards recognition and problem solving skills of the union trade instructors as they teach new apprentices the tasks of the job.

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