

## Overview

Work-related musculoskeletal disorders are a major health problem for workers.

The way in which work is organized can affect one's risk for developing musculoskeletal disorders. Three research teams conducted a cross sectional study using pooled data from 1,834 participants from over 20 U.S. workplaces. The relationships between work organizational and biomechanical risk factors for musculoskeletal injuries, as well as work organization and worker's psychosocial health, were studied.

*Work organization* was defined through job rotation, overtime work, having second jobs, and work pacing methods.

*Biomechanical risk* was characterized through measures of force, repetition, duration, posture, and the Strain Index.

*Psychosocial health* included general, physical, and mental health as well as job attitudes.

## Job Organization and Worker Health

Relationships between Job Organizational Factors, Biomechanical and Psychosocial Exposures

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## Key Findings

- Job rotations are frequently used as an ergonomic intervention for work-related musculoskeletal disorders because it is often easier to implement than most engineering controls. Approximately 40% of the workers in this study had job rotations:
  - Job rotations were still associated with higher biomechanical stressors and lower job satisfaction. The tasks that workers rotated between had similar exposures.
- Overtime work was associated with higher job biomechanical stressors.

## Impact

Contradictory to popular belief, common job rotation practices may not be effective in reducing the risk for work-related musculoskeletal disorders. It is recommended that workplaces utilizing job rotation should assess whether job tasks include low musculoskeletal exposures in order to have potential health benefits.

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## Research for Safe Work

The SHARP Program at the Washington State Department of Labor & Industries partners with business and labor to develop sensible, effective solutions to identify and eliminate industry-wide hazards. Learn more at [www.lni.wa.gov/Safety/Research/](http://www.lni.wa.gov/Safety/Research/)

### Find the article here:

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