



Study: Hand Injuries Most Prevalent

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The National Electronic Injury Surveillance System reports that fingers and hands are the most frequent body parts injured at work and treated in hospital emergency rooms. Each year, 1.08 million people are treated for work-related finger and hand injuries.

In a study published in the April issue of the Journal of Occupational and Environmental Medicine, researchers describe the type, location and severity of occupational hand injuries among 1,166 patients recruited from 23 occupational health clinics in five New England states. Subjects ranged in age from 18 to 77 years, and approximately 75 percent were men. They were employed in machines trades, service work, structural work and less frequently, bench work, professional, technical managerial, clerical and sales work.

The researchers, led by Gary Sorock, Ph.D, Liberty Mutual Research Center for Safety and Health, found that the majority of subjects (83.4 percent) had a single type of injury: 62.6 percent were lacerations, 13.1 percent were crush injuries, 8 percent were avulsions and 6.1 percent were punctures. Metal items, such as nails, metal stock and burrs, accounted for 38.4 percent of the injuries followed by hand tools with blades and powered machinery (24.4 percent and 12.3 percent, respectively). Hand tools with blades were least likely to result in multiple types of injuries, whereas powered machines or non-powered hand tools were more likely to result in multiple types of injuries than other injury sources.

“Prevention of hand injuries is likely to require multiple interventions, particularly when the risk of a hand injury is high,” researchers reported. “Use of personal protective equipment, administrative controls and design of equipment and tools (e.g. machine guarding) that reduce the likelihood of contact with moving parts, sharp metal items and knives are all important approaches to prevention.”

Researchers noted that glove use has been shown to reduce hand injury risk by 20 percent in a group of study participants. They also said that machinery malfunctions or doing an unusual task contributed to hand injuries.

Which of the following do you consider important occupational safety and health concerns in your organization/facility?

Response	Percent
Arm/Hand Injuries	80.9%
Ergonomic Stressors	77.4%
Machine Safety	66.2%
Eye Injuries	58.4%
Falls	55.4%
Noise/Vibration	53.5%
Chemical Hazards	51.6%
Electrical Hazards	48.1%
Heat Stress	40.1%
Indoor Air Quality	38.2%
Confined Spaces	37.3%
Motor Vehicle Safety	35.7%
Fires/Explosions	35.0%
Violence	20.0%
Skin Diseases	19.3%