

Finger, Hand, Wrist, and Shoulder Injury Prevention Fact Sheet

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A worker's hands and shoulders are engineering marvels. Hands include 27 bones, 34 muscles, and over 100 ligaments that provide precision and power in the palms, fingers, and wrists.¹ Meanwhile, shoulders, with their ball-and-socket design, allow for rotating the arm in almost any direction. Together these body parts serve as some of the most important "tools" used in work.

However, injuries in these areas are common. Over a quarter of a million workers suffer serious hand injuries biennially, while shoulder injuries often lead to the longest time away from work.² The good news is that these injuries are preventable. By recognizing hazards, following safety guidelines, and using proper protective equipment, employers and workers can protect these critical body parts and prevent disabling injuries.



Common Hand and Shoulder Workplace Hazards

Every workplace has its unique set of challenges, but these are the most common workplace hazards that cause injuries to hands and shoulders:

- [Unprotected or faulty machinery and equipment.](#)
- [Failure to use push sticks, guards, and kill switches.](#)
- Improper [lockout/tagout procedures.](#)

- Wearing jewelry, loose clothing, or ill-fitting gloves around moving parts.
- [Exposure to chemicals, corrosives, and irritating substances.](#)
- Temperature extremes.
- [Electrical hazards.](#)
- [Constant repetitive motions.](#)
- Excessive overhead arm motions.
- Improper lifting techniques.

Injury Warning Signs

The shoulder is the most mobile joint in the body. This mobility also makes it prone to injury. Warning signs of a shoulder injury include:

- Stiffness and limited range of motion.
- Instability in the joint.

- Lack of strength for daily activities.
- Recurring shoulder, neck, or arm pain.

For hand and wrist injuries, the most common symptoms are:

- Pain.
- Stiffness.
- Locking sensations.
- Numbness or tingling down the arm.

Injury Prevention Strategies

Workplace Safety Measures

Creating a culture of safety begins with putting good plans into action that are tailored to the specific work environment. This involves not only recognizing hazards but also actively engaging in practices that reduce risks. By encouraging everyone to work together to achieve the following safety measures, employers and employees can contribute to a healthier workplace.

- Conduct a [Job Hazard Analysis](#) to identify hazards in each task.
- Ensure proper communication and teamwork regarding job hazards.

- Use appropriate tools rather than hands as tools.
- Be alert to unguarded pinch points.
- Use push sticks, guards, shields, and other protective devices.
- Remove jewelry and avoid loose clothing near machinery.
- Inspect equipment before and after use.
- Follow proper [lockout/tagout procedures](#).
- Wear [appropriate personal protective equipment \(PPE\)](#).
- Use brushes to wipe away debris.
- Select [ergonomic tools designed to keep wrists straight](#).

Proper Workstation Setup

A [well-designed workspace](#) is not just helpful; it is a critical component in preventing injuries. The way tools and equipment are arranged can greatly impact our posture and comfort throughout the day. By making small adjustments, workers can enhance their efficiency while safeguarding their physical well-being.

- Use supportive chairs with proper back support.
- Position computer monitors at fingertip reach and eye level.
- Maintain 90-degree angles at elbows and knees.
- Support feet on the floor or a footstool.
- Take regular posture breaks and stretch.

Lifting and Reaching Techniques

[Proper lifting techniques](#) are essential for preventing strain on the back and shoulders. Many injuries occur due





to improper lifting or reaching for objects in awkward positions. By mastering these techniques, workers can significantly reduce their risk of injury while ensuring they maintain their strength and mobility.

- Face objects when lifting and use legs for power.
- Keep back straight during lifting.
- Avoid reaching for heavy objects stored up high.
- Use stable platforms or step stools when necessary.

Choosing the Right Gloves

Selecting the appropriate gloves is not just about compliance; it is about ensuring safety without losing dexterity. The right gloves can protect against various hazards while allowing workers to perform their tasks effectively. Understanding how to choose gloves that fit well and are suited for specific tasks is vital for injury prevention.

- Select gloves appropriate for the job.
- Ensure proper fit and comfort.
- Replace gloves when worn, torn, or contaminated.

Shoulder-Specific Prevention

Shoulder injuries often stem from repetitive motions or poor ergonomics in daily tasks. By focusing on shoulder-specific prevention techniques, workers can maintain their range of motion while minimizing the risk of injury. Simple adjustments in behavior can lead to significant improvements in shoulder health over time.

- Limit heavy lifting and raising arms above shoulders.
- Lift items close to the body.
- Only lift heavy objects below the shoulder level.
- Maintain good posture during computer work and other arm-intensive activities.
- Limit the use of arm slings to prevent a frozen shoulder.

Exercise and Warm-up Techniques

Adding exercise into one’s routine is not just beneficial for overall health; it is vital for maintaining strong shoulders and hands. Regular warm-ups prepare muscles for activity, reducing the likelihood of injury during strenuous tasks. A commitment to fitness can pay dividends in injury prevention.

- Maintain overall physical fitness with balanced exercise.
- Apply heat to shoulder muscles before

exercise.

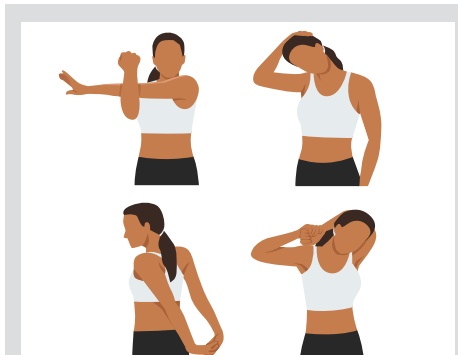
- Perform gradual warm-up movements for shoulders.
- Practice pendulum stretching exercises for rotator cuff relief.
- Add muscle-strengthening exercises using elastic bands.

Minimizing Pain After Injury

Pain serves as an important signal from our bodies that something may be wrong. Learning how to manage pain effectively after an injury is crucial for recovery and long-term health. By following appropriate guidelines and seeking professional advice when necessary, individuals can navigate their path back to full function safely.

- Limit activities that aggravate pain unless otherwise instructed.
- Eliminate heavy lifting and overhead arm motions.
- Practice good posture during all activities.
- Consult a doctor or physical therapist before starting an exercise program.

By following these guidelines and maintaining awareness of potential hazards, workers and employers can greatly reduce the risk of finger, hand, wrist, and shoulder injuries in the workplace.



References

¹ Austin Sports Medicine, "Hand Anatomy," <https://austinsportsmed.com/injury-information-austin-sports-medicine/hand-wrist/hand-anatomy.html#:~:text=The%20human%20hand%20is%20made,to%20form%20the%20wrist%20joint>, Accessed October 08, 2024.

² US Bureau of Labor Statistics, Number of nonfatal occupational injuries and illnesses involving days away from work by select characteristics and part of body for all US, private industry, 2021-2022: Hand(s), unspecified (code 440XXX), total 68,080; Fingertips (code 4422XX), total 12,510; Wrists (code 43XXXX), total 63,340; Shoulder(s) including clavicle(s), scapula(e), (code 41XXXX), total 120,370. Combined total 264,300. <https://data.bls.gov/gqt/InitialPage>. Accessed October 8, 2024.



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