



## Proper Glove Use is a Crucial Component of Hand Protection Program

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Careful Selection is Key  
to Increasing PPE Compliance

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## Careful Selection is Key to Increasing PPE Compliance

While protecting the overall health and well-being of employees should be an employer's paramount concern, special attention must be paid to preventing hand and finger injuries, which are second only to back strains and sprains in lost work days, according to the U.S. Bureau of Labor Statistics (BLS).

Not only are there an estimated 110,000 lost time hand injuries annually, but hand injuries send more than one million workers to the emergency room each year.<sup>1</sup>

If that were not enough to demonstrate the need for improving hand protection in the workplace, consider the following:

- In a study conducted by the BLS, 70 percent of workers who experienced hand injuries were not wearing gloves.
- The remaining 30 percent of injured workers *did* wear gloves, but experienced injuries because the gloves were inadequate, damaged or wrong for the type of hazard present.<sup>2</sup>
- To help prevent workplace hand injuries, OSHA states that employers must first explore all possible engineering and work practice controls to eliminate hazards and use PPE to provide additional protection against hazards that cannot be completely eliminated through other means. Protective gloves should be the primary means of protecting employees' hands, OSHA states, adding that when the risk of injury includes the arm, protective sleeves, often attached to the gloves, may be appropriate.

The hand injuries that employers need to guard against in the workplace, according to OSHA, are:

- Burns
- Bruises
- Abrasions
- Cuts
- Punctures
- Fractures
- Amputations
- Chemical Exposures

## The Right Glove for the Task

The variety of potential occupational hand injuries makes selecting the right pair of gloves challenging, according to OSHA, which adds this caution: "It is essential that employees use gloves specifically designed for the hazards and tasks found in their workplace because gloves designed for one function may not protect against a different function even though they may appear to be an appropriate protective device." For protection against chemicals, for instance, glove selection must be based on the chemicals encountered as well as the chemical resistance and physical properties of the glove material, according to OSHA.

One resource for glove selection is The International Safety Equipment Association's glove standard ANSI/ISEA 105-2005, American National Standard for Hand Protection Selection Criteria. It provides a consistent, numeric-scale method for manufacturers to rate their products against certain contaminants and exposures including puncture and abrasion resistance, chemical permeation and degradation, detection of holes, and heat and flame resistance. The 2005 edition also includes tests and selection criteria for vibration reduction and dexterity.

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<sup>1</sup> Source: U.S. Bureau of Labor Statistics.

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## What about Compliance?

After selecting the right gloves for a task, how does an employer make sure workers will wear them? Training is key. It is essential to provide employees with information on what hand protection to wear for different tasks, how to don, doff and care for gloves, as well as when to replace gloves. Workers should be taught to visually inspect gloves before each use and to discard and replace any gloves with impaired protective ability due to pinholes or material degradation.

Comfort, fit and dexterity are also crucial to improving compliance. Eighty-seven percent of safety professionals surveyed by Kimberly-Clark Professional at the National Safety Council (NSC) Congress in October 2007 said they had observed workers failing to wear PPE when they should have been. The main reason cited for this noncompliance was “discomfort,” according to 62 percent of respondents who had observed these behaviors in the workplace.

Fortunately, because glove materials today have become so advanced, the development of new glove technologies tends to focus not just on function, but also on issues of fit, comfort and style. Proper fit is critical because it leads to improved productivity. When discussing fit issues, keep in mind that this includes finger length (gloves should not be too long to avoid getting caught in moving equipment) and overall sizing (hand circumference should not be too small so that it reduces the user’s range of motion or too big so that the gloves are too loose). If a glove is more comfortable to wear, users are more likely to comply with PPE protocols – a win/win for both workers and employers.

For general purpose applications, breathable hand protection provides comfort for extended wear. Look for features such as ventilated backs, breathable nylon backing and seamless knit liners. Cotton or poly-cotton liners provide good perspiration absorption and improved hand comfort when non-barrier gloves must be worn.

When cut protection is required, look for comfortable, seamless gloves made of materials that provide protection without compromising comfort. For chemical and liquid resistance, choose gloves made of rubber (natural (latex), butyl and nitrile) or rubber-like materials such as neoprene, or various kinds of plastic (polyvinyl chloride (PVC), polyvinyl alcohol and polyethylene) to protect workers from burns, irritation and dermatitis caused by contact with oils, greases, solvents and other chemicals.

In addition, it is critical to select high-dexterity hand protection, particularly for applications that require the use of fine motor skills. Some glove features that increase dexterity and grip are:

- Coated fingertips
- Textured fingertips

## Dotted palms

For dexterity and abrasion resistance, also consider nitrile gloves, which are ideal for tasks such as small parts handling, warehousing, shipping and receiving. Polyurethane coated gloves also offer excellent grip and tactile sensitivity, making them ideal for tasks such as electronics handling and precision assembly.

Finally, style is becoming increasingly important among workers, and stylish PPE can tip the scale toward improved compliance. Gloves and eyewear tend to be ahead of most other PPE in terms of style. Leading glove manufacturers are taking cues from the retail clothing and performance athletic clothing markets to develop trendy, yet functional styles that people want to wear – especially with the emergence of the Generation-Y workforce. Some companies are also beginning to distinguish their products with non-conventional signature colors such as purple for nitrile gloves.

## It Pays to Protect Workers

In addition to the physical harm that hand injuries pose to workers, they also have financial implications. The average hand injury claim has now exceeded \$6,000, with each lost time workers compensation claim reaching nearly \$7,500, according to the Bureau of Labor Statistics and the National Safety Council. When you consider these statistics, the overall drain on employee productivity is apparent. While glove use is not the only way to protect against hand injuries, it is a crucial component of any injury prevention program. Finding ways to help workers comply with glove wearing protocols will go a long way toward creating a safer and more productive work environment.

