Does my Workplace Need Gloves, Hand Cream or Both?

Strategies for reducing the risk of occupational skin disorders

About Deb Group
Deb is the world’s leading away from home skin care company. Our expertise extends to all occupational sectors with dedicated skin care programs. For over 80 years, we have been at the forefront of research into skin care products and dispensing systems. Deb is comprised of 23 companies covering 5 continents and our products are used over 150 million times every day. Occupational skin disease is one of the biggest occupational health issues and yet it can be largely avoided through the implementation of a structured skin management process. Deb is committed to working with organizations who wish to engage and empower their employees to make hands matter in the workplace.
Table of contents

I. Overview
   Work-related skin problems often go unreported, but there are steps you can take to prevent them.  

II. Understanding the need for gloves and creams
   It is important to understand when gloves are necessary and when pre-work creams can serve as a supplement.

III. Why you should implement an occupational skin program
   An occupational skin care program that includes gloves and pre-work creams can improve worker health, productivity and morale.

IV. Getting started
   Steps you can take to mitigate problems and avoid future issues.
Introduction

Look at your employees’ hands. Is there redness or swelling? Do they complain about itching? Have they mentioned that the condition of their hands improve away from work? If you answered yes to any of these questions, your employees may have a skin disease known as occupational dermatitis.

When it comes to work-related health problems, many people think of back issues, respiratory problems or hearing loss. However, skin disorders occur far more often than any other work-related health issue. At work, skin may be exposed to a multitude of harmful chemical, physical and mechanical hazards. It is vital to take effective measures to protect your workers’ skin when it is likely to come into contact with harmful substances such as cooling lubricants, grease, oil, acids and caustic solutions, detergents, cleaning agents, solvents and metallic dust. It is also important to protect hands in harsh environments or where UV radiation is present.

By taking the right preventative steps to minimize contact with damaging agents and adopting an appropriate skin safety regimen, the risk of occupational dermatitis can be reduced. This e-book will discuss the importance of implementing an occupational skin care program that includes gloves and pre-work creams to prevent occupational skin disorders (OSDs).

By the Numbers

Published literature shows that one out of 1,000 workers will report a work-related skin disorder per year in Western industrialized countries. But this is only the tip of the iceberg. Many workers do not report work-related skin problems; often because they do not realize that their skin issues are work related. Some even think cracked and irritated skin is proof of being a hard worker. Others prefer not to mention the issues because they are afraid of possible repercussions from their employer. It is estimated that the number of unreported work-related skin issues is 50 to 70 times higher than the reported cases. The U.S. Bureau of Labor Statistics found that 75 percent of patients with occupational dermatitis developed chronic skin disease.

The Centers for Disease Control and Prevention (CDC) estimates that more than 13 million workers in the U.S. are potentially exposed to chemicals that can be absorbed through the skin. Common industries where chemical exposure is a risk include:

- Foodservice and Food Manufacturing/Processing
- Healthcare
- Cleaning (Building Service Contractors)
- Automotive
- Agriculture
- Painting
- Printing/Lithography
- Construction
- Cosmetology
- Occupations where employees often wear gloves
In addition to the mental and physical symptoms experienced by the affected person, skin diseases also have an economic impact. A study from the state of Oregon in which data was collected between 1990 and 1997 concluded that the cost of OSDs is approximately $3,552 per case. But some of the costs cannot be measured, such as the cost of motivation and productivity loss. According to the CDC, the total costs for work-related skin problems in the U.S. is estimated to exceed $1 billion per year.

**When do employees need gloves?**

Gloves are meant to protect workers from exposures to hazardous chemicals or harmful microorganisms. At the same time, they safeguard a business’ customers and other individuals. For example, gloves protect not only nurses and doctors from harmful bacteria, but also patients from potential pathogens residing on an individual’s hands. They also enhance safety for customers in a restaurant or supermarket deli by providing a barrier between a worker’s skin and the ready-to-eat food. However, whether it is a cook or nurse, gloves often provide a false sense of security to the wearer. Failure to change gloves at proper frequency is also as damaging as poor hand hygiene.

Hand hygiene and the use of gloves are two interdependent components that can together deal with the continuum of microbial exposure and chemical insult effectively. For example, there are many cases of foodborne illness outbreaks that have occurred where a sick food worker will have claimed to have worn their gloves when he or she probably didn’t wash their hands. In this as in many other instances, hand hygiene or glove use would have prevented the outbreak from occurring. Gloves are an important measure in preventing exposure to hazardous substances. But, gloves should not be worn longer than necessary.

**Can creams help?**

If your workers wear gloves often and for long periods of time, they likely understand how wearing gloves can change their skin’s condition. The skin often gets wrinkly, soft and dry. Additionally, the moisture in the glove may harbor bacteria. Some people experience fungal infections on the hands similar to athlete’s foot when wearing gloves for long durations.

Studies indicate that glove wearing will contribute to skin problems when other skin-stressing factors like frequent hand washing or contact to irritant workplace substances are involved. Under most use conditions, glove wearing will cause additional stress to the skin and can contribute to work-related dermatitis. The use of a special pre-work cream can help to reduce the negative effects of wearing gloves. Pre-work creams will make wearing gloves more convenient and help to keep the skin in natural condition.

The use of pre-work cream provides a protective layer, helping to prevent physical contaminants and micro-organisms from entering the skin. The cream helps to maintain the natural condition of the skin, retaining natural lipids and moisture. The protective layer also protects skin against dermatitis and from exposure to UV rays or cold working conditions. It also makes the skin easier to clean with less aggressive cleansers.

When using an under-the-glove cream, it’s important to ensure that the product selected is compatible with the glove material. Some cream components may degrade the glove material and make the glove ineffective. For example, Stokoderm® Grip PURE is a pre-work cream containing Eucoriol®, a unique skin strengthening agent, to help stop skin softening under gloves and personal protective equipment (PPE) and improve grip in damp environments.
In general, fragrance-free products should be used over variants with perfume. Fragrance components are known to be able to cause allergic reactions and there is hardly a benefit of using a scented product in the work place.

Workers should still wash the hands with a very mild skin cleanser after taking the gloves off, even if they are using an under-the-glove cream. You should also remind them to apply a restoring skin care product after work.

**When should employees apply creams?**

The 3-Moments of Skin Care are a universal, international standard created by a coalition of the world’s most eminent occupational dermatologists. It is an evidence-based, practical international standard for OSD prevention, driving the implementation of skin care best practice that can be adapted to any workplace. It is a user-centric approach to occupational skin care, where it is accepted that skin exposure to contaminants and environmental conditions at work cannot be avoided.

Employees should apply protect cream before they start each work period and reapply after washing their hands, or at least every three hours. They should then apply a conditioning or restore cream at the end of the work period.

**Benefit of Skin Care Programs**

An occupational skin care program consists of products that are applied throughout the work period.

Pre-work creams help to support the skin’s natural barrier and reduce contact with workplace substances and contaminants, helping to keep the skin healthy and making skin easier to clean. It is important to select products that are specific to the particular work situation and contaminants encountered.

---

1 Multi-modal scientific study with analysis and review of 75 published occupational skin care studies; 2015
Aggressive hand cleansing with industrial solvents, hand brushes or harsh hand cleansers itself can cause skin problems. Therefore, it is important to select the mildest cleanser possible for the job. Do not use cleansers with a pumice scrubbing agent, kerosene or petroleum distillates. These products will irritate and damage the skin. Even frequent hand sanitizing and hand washing will cause additional stress.

It is important to stress that pre-work creams are not a replacement for prescribed measures. They complement the use of gloves, but don’t replace them. The use of appropriate and intact gloves is especially important when there is potential exposure to blood and infectious material and when handling:

- Harmful substances
- Toxic substances
- Corrosive substances
- Chemicals that can cause allergy

But what does it cost to implement an occupational skin care program? Under normal conditions, a worker will use one liter of pre-work and one liter of after-work cream per year in addition to the cleansers already provided. The cost for these two products is approximately $50 per year, per worker. This small investment will help save thousands of dollars by eliminating occupational skin disorders.

**Getting Started**

Below are steps you can take to mitigate current skin problems and avoid future ones:

1. Conduct an assessment of current work practices and substances that may represent a danger to the skin, including harsh chemicals or abrasive materials.
2. Evaluate and introduce new products, processes, working practices or PPE, as required.
3. Introduce a skin safety program that addresses the need to protect, cleanse, sanitize and restore skin.
4. Institute staff training and communication to increase awareness and encourage compliance.
5. Review and monitor the situation on an ongoing basis.

Employers are at risk for increased costs due to employee sick days and reduced productivity. The risk of failing to address OSDs is great, and any investment made in effective skin care flows back to the bottom line many times over.

**Case Study 1**

Studies have proven that an occupational skin care program helps to prevent skin problems. One study compared groups with different product use habits. One group only used pre-work products, another only restore products and another pre-work and restore products, as well as hand cleanser. After 12 months, 27 percent of the workers using after-work restore creams showed improved skin conditions. The use of a pre-work cream alone was a little more effective with 31 percent improvement. But the best results were achieved when using both pre-work and after-work restore products as well as hand cleanser.
Case Study 2

A study of employees from an Austrian oil and gas exploration company demonstrated that it was possible to reduce the incidence of skin problems from 55 percent to less than 20 percent within eight weeks. It is important to stress that a successful skin care program not only consists of products, but also proper product usage training.

References

1. The National Institute for Occupational Safety and Health NIOSH Allergic & Irritant Dermatitis.
2. Centers for Disease Control and Prevention (CDC)/ National Occupational Research Agenda (NORA).