Skin Care Guidelines

Skin Diseases are Often Ignored at Work but Many Preventative Steps are Not Costly

How can job-related skin diseases compete with asbestos, radon, cumulative trauma disorders, reproductive hazards, and other occupational health threats in getting the attention and respect of workers and management? In many plants, “disease” seems too strong a word for many of the rashes and blisters that crop up on the job.

“It’s looked at as more a small nuisance,” says Jim Byrnes, a first aid product manager for MSA.

“We’ve had barrier creams available at places I’ve worked, we’ve publicized it, and the response has been, ‘blah’,” says safety director Dick Snyder.

Why the lack of interest?

“Skin disease is not a life and death issue,” says Dan Marsick, an OSHA health scientist.

But it is one of the most pervasive occupational health problems in the United States. About 60,000 new cases were reported in 1988, according to the Bureau of Labor Statistics. That figure represents about one-quarter of all reported occupational illnesses, and for years that percentage was much higher until eclipsed by ergonomic-related disorders.

Lost Time and Dollars

Skin diseases also have a productivity and economic impact. These projections were offered at a 1988 national symposium, co-sponsored by NIOSH and the American Academy of Dermatology:

- About one-quarter of all job-related skin disease cases force the employee to miss time from work. The average is 10-12 lost workdays.
- The annual cost of these skin diseases is estimated to be between $222 million and $1 billion.
- Apparently the big numbers lose their meaning on the shop floor. Experts in the field say many workers can’t recognize symptoms of skin disease, won’t report problems to safety or medical personnel, or simply don’t care. And they say many employees won’t spend the money needed for training and education, showers, cleanup stations, and chemical-handling safeguards.

"If people don’t complain, management won’t fix something it tends to see as a minor, little problem,” says Dr. C. G. Toby Mathias.

Dr. Mathias and other experts say the problem has substantially improved compared to 20 or 30 years ago. Thanks to right-to-know laws, workers in general are more cautious around chemicals. In large plants with good medical and industrial hygiene departments, skin diseases are respected and largely controlled. Plus, treatment is more effective.

But job-related skin diseases are insidious—a key reason why the problem persists. Hands might look clean but still contain bacteria. Many workers won't worry about something they can't see. Or they'll go home with itchy, red rashes that disappear the next morning, and they'll forget about it. Or they might not associate the rashes with their job, thinking it's something they got while camping out or working around the house.

Most job-related skin conditions are caused by repeated contact with irritants—solvents, soaps, detergents, particulate dusts, oils, greases, and metal-working fluids. This is called contact dermatitis, and the symptoms are red, itchy skin, swelling, ulcers, and blisters. The length of exposure and the strength of the irritant will affect the severity of the reaction (burns resulting from chemical splashes, cuts, and punctures are considered skin injuries).

Irritant contact dermatitis accounts for up to 80% of job-related skin diseases. Allergic contact dermatitis is the next most common, caused most often by poison ivy or oak. Skin infections, such as athlete's foot, are caused by viruses, bacteria, and fungi and represent a small percentage of cases.

Up to 90% of contact dermatitis cases involve the hands. But almost any part of the body is vulnerable—forearms, faces, necks, backs, thighs.

There's a very good reason to take seriously these common skin conditions: once you develop hand dermatitis you're likely to keep it. Statistics show about one-quarter of the cases requiring medical care are permanently cleared up through treatment. Half show improvement but periodic recurrence. The remainder involve persistent problems that can even worsen.

"Discontinuing the exposures will not always clear up the problem," says Dr. Mitchell Singal, chief of NIOSH's medical section. "Irritant dermatitis somehow changes the physiology of the skin, though the reasons aren't clear."

That's bad news for workers with dermatitis, and should be a warning to the rest of the workforce. Says MSA's Byrnes: "People who have dermatitis will use anything to get rid of it."

What To Do

Here are some of the steps mentioned by skin care experts and safety professionals to control job-related skin problems:

- **Inspect your workplace and identify potentially hazardous materials.** Check material safety data sheets for their health effects.

- **Identify exposed workers.** Interview them for their medical history. Atopic individuals (persons who have asthma, hay fever, and dermatitis, or who have close blood relatives with one of these problems) have increased susceptibility to both skin irritation and infection. One-quarter of the general population is atopic. In a South Carolina study, atopic people accounted for 88% of compensation payments for work-related hand dermatitis.

- **Educate workers and supervisors.** Ideally, the training should be one-on-one and presented by a health professional, says Florence Ebert, R.N., O.H.N. Workers should be made aware of materials in their area and the importance of quickly reporting skin conditions. Numerous experts say seemingly mild, minor problems can turn into severe cases if left unattended.

- **Get management's support.** It's not always easy. There are no OSHA standards for skin care. Large fines and lawsuits are not really a threat. The health hazards are not perceived as serious.

  But severe cases do develop, and can involve weeks of lost time and costly visits to dermatologists or other health care providers. One safety consultant says it might be necessary to find horror stories and use scare tactics. Skin disease can also be a source of employee relations problems, says Dr. Mathias.

If management ignores or rejects a worker's complaints and his or her problem becomes more severe, or if it spreads to other workers, what was once seen as a nuisance becomes a major issue.

- **Use gloves and other appropriate personal protective gear.** Some workers might balk at wearing gloves that make them sweat for eight hours. Others say they can't do skilled, precision work while wearing gloves. But gloves remain a primary line of defense.

- **Carefully consider the use of barrier creams.** Worker acceptance can be a problem here. Vendors say employees don't like a greasy feeling, and want creams that absorb quickly. According to MSA's Jim Byrnes, workers are looking for barrier creams that smell good, are not gritty, will not stain clothing, and are easy to use.

  Make sure you're using the right kind of barrier cream. Some dissolve in water and are intended for dry work only. Water-repellent creams should be used if there's heavy perspiration involved. Solvent-resistant creams won't protect against dishwashing detergent.

- **Buyer beware.** There are no standards for manufacturing barrier creams, and Byrnes says there are some watered-down versions on the market with very generalized statements about their effectiveness. Some vendors offer good technical data, others offer very little.

  Remember that the effectiveness of these creams is difficult to gauge. How well they protect, and for how long, depends on numerous variables: how well they have been applied, the concentration of the irritant they are to protect against, the length of exposure, the kind of work being performed (how much of the cream may be rubbed off), and the work environment (such as hot, humid temperatures that increase perspiration).

  Don't let barrier creams give you or your workers a false sense of security. Some people look at them as "invisible gloves," says Byrnes. "It's important to remember that barrier creams are not a replacement for other safety equipment."

- **Keep clean. "**Cleanliness is the best prevention," says Ebert. That means washing often, and immediately after exposures, showering before leaving work when appropriate, and changing daily and regularly washing work clothes.

- **Maintaining good housekeeping.** Work areas, washrooms, and changing areas should be kept clean. Cleaning materials should be readily available.

- **Use engineering controls.** It's not always practical or feasible, but experts urge companies to try to isolate, contain, or redesign processes to eliminate exposures to the skin. Machine guards should be used to prevent splashes. Areas should be adequately ventilated.

- **Substitute less toxic materials.** Again, not always feasible, but another way of avoiding exposure.

Where's OSHA?

OSHA does not have a specific standard for preventing occupational skin disease. Possible standards-setting was explored in the late 1970's when Dr. Eula Bingham headed the agency. Dr. Bingham had a good understanding of skin hazards and diseases in industry, according to Dr. Donald Birmingham, who co-chaired the advisory committee formed to address the issue. "She really wanted to do something about it."

But the committee couldn't agree on a method for regulating skin hazards. Among the obstacles: how to regulate hundreds of toxic substances used in a wide variety of applications; how to account for individual susceptibility; how to conduct surface monitoring; and how to set a threshold for irritant concentrations that would trigger protective requirements.

"We don't have the data. We don't know how much is too much," says Dr. Mathias.

The committee delivered a report to OSHA, outlining basic preventative guidelines such as engineering controls, medical surveillance, personal hygiene, and education. Says one OSHA official: "I doubt it went anywhere. Eula took on projects that were left by the wayside after she left."

Written by Dave Johnson