



Gimme Some Skin

Amazing stuff, skin. It does an extremely good job at protecting you from nearly everything life throws your way. It cools you down, helps keep you hydrated, and even helps fight against infections. For as vital as it is, we usually don't treat it very well. That shows in the numbers. Only repetitive trauma causes more reported workplace illnesses. And these aren't just patches of rough skin – in 1993, 21% of all occupational skin diseases were so bad that employees lost time from work.

How bad is it for automotive repair workers (collision and mechanical)? We don't know. But we do know the work your employees do is extremely hard on the skin. Look at the chemicals they use. Look at the tasks they do. And look at some of the measures they take to clean up their skin, as those often exacerbate the problems.

Automotive shops use a lot of organic solvents, chemicals such as toluene, xylene, methyl ethyl ketone, and even methanol, the main ingredient in windshield washer fluid. You'll find them in carburetor cleaner, lacquer thinner, brake cleaner, and in body filler, water-based paints, and adhesives. These chemicals dissolve oils and greases – including the oil produced by your skin that keeps your skin supple. Excessively dry skin is a common problem among people who use solvents.

If dry skin was the only problem, we could just tell people to use moisturizers. But these solvents, soaps and cleaners, and many other substances used in vehicle repair can cause irritant contact dermatitis. In mild cases, skin might be chapped and dry. More severe cases can result in swelling, scaly skin, and cracks or blisters in the skin. Dermatitis can itch horribly, bad enough that people afflicted scratch so much they bleed.

Epoxy and methacrylate adhesives, as well as the activator for body filler, are known to cause allergic contact dermatitis, which will look similar to irritant contact dermatitis but is an allergic reaction to the chemical (akin to poison ivy). The treatment: stay away from the substance. If your job involves using these, that simple treatment may be quite difficult.

If oils keep your skin supple, does that mean that mechanics doing oil changes have great skin? Unlikely. Motor oil, transmission fluid, hydraulic fluid, and greases can cause oil acne. This is especially likely if clothing becomes oily, holding the oil close to the skin. Mechanics who wipe their oily hands on their pants might notice pimples and blackheads on their thighs – oil acne. Used motor oil has caused skin cancer in lab animals, so prolonged contact with it can be dangerous.

Even getting that oil off of skin can be damaging. Anyone who has ever used lacquer thinner to clean paint or grease from skin has probably caused more damage during cleanup than during the dirtying job. Lacquer thinner contains toluene, a solvent that dries the skin and that can be absorbed through the skin. Provide your workers with cleaners designed for use on skin, instead.

Choose ones suitable for the task – if paint is the problem, use hand cleaners formulated to remove paint. Choose the gentlest product that will work. And provide them with moisturizer. Applied before and after work, it helps tremendously in protecting skin.

Gloves help, too – most of the time. We don't like to see any latex gloves in our shops, in part because latex gloves are not chemical-resistant. Isocyanates, found in hardeners and activators, go right through them with no obvious damage to the glove. And latex gloves (especially powdered latex gloves) are very good at causing allergic contact dermatitis. Surgical-type nitrile gloves are a better bet for most uses. They'll keep mechanics' hands clean, and will provide some chemical protection. They don't hold up well against all chemicals. Thinner is particularly tough; for that, try foil laminate gloves. They don't stretch and are slick, so they don't provide the grip of most rubber gloves. But workers could easily slip them over nitrile gloves when using thinner.

Skin is the largest organ in the human body and, in many ways, the most vulnerable to damage. But it doesn't take a lot of effort to protect it. Use moisturizers. Wear gloves. Wash with cleaners meant to be used on the hands, and moisturize again.

This article is intended to provide general information (not advice) about current safety topics. To discuss your specific concerns and how CHESS may help, please contact CHESS at 651-481-9787 or chess@chess-safety.com.