SAFETY SHOOTER

Concrete Burns

By Marcus H. von der Hofen

kin irritations or cement burns caused by contact with wet concrete are a daily hazard faced by concrete and shotcrete workers. Some of these afflictions are no more serious than dry skin, but others can be very damaging. This article will talk about some of the skin issues faced and ways to avoid and treat them.

Everybody is different when it comes to skin problems caused by exposure to wet concrete. Many workers claim they aren't bothered by contact, and the fact is they could very well be telling the truth. Resistance to skin irritations from wet concrete is different for everyone, but minimizing exposure is the best bet.

Cement burns (caustic burns) are sneaky—you might not know that you are being affected by the alkaline burn of cement because it is happening at the microscopic level. Once the process is started, it can continue even though you have removed the concrete from your skin. Do not assume the burn will not get worse. Any tingling, redness, stinging, itching, pain, rashes, or any other abnormal sensations should be taken seriously and treated.

Prevention of burns for the professional concrete worker should be more than just the obvious personal protective equipment. Use a neutral- or lower-pH hand soap. Cement-product workers are reducing their own body's defenses when they use high-alkali soaps. Keeping skin in a balanced pH state allows it to help repair itself as a natural barrier. Avoid soaps containing lanolin, petroleum jelly, limonene, perfume, and other skin-softening products. They can increase the skin's ability to absorb contaminants. Barrier creams can increase your level of safety when used as a backup to protective equipment. Jewelry is another element in which cement may become trapped against the skin, so leave the bling at home.

If you believe you have become exposed to a possible concrete burn, some immediate first-aid steps should be taken.

- 1. Remove any contaminated clothing, gloves, etc.;
- 2. Gently brush any dry cement off the skin and flush the affected area with clean running water. To help neutralize the alkalinity, add vinegar, citrus, or a cement neutralizer (buffer) product to the water; and

Proper gloves should be worn 100% of the time



3. Seek professional medical attention.

Protective equipment is always very important to your safety. Boots, gloves, clothing, and eye protection can all help guard against cement burns. Stay safe and work hard.



Marcus H. von der Hofen is the Pacific Northwest Area Manager for Johnson Western Gunite Company, San Leandro, CA. He has been in the commercial construction field since 1982 and is an active member of ACI Committees 506, Shotcreting, and C660, Shotcrete Nozzleman Certification.

He is a charter member of ASA, joining in 1998, and is Co-Chair of the ASA Education Committee.



Hands and forearms are areas of high exposure



Make sure material is not falling into areas between protection and skin



Concrete burns can be severe



Use knee pads



Knees and shins are also high exposure areas

48 Shotcrete • Winter 2009