Concrete Exposures

Working with concrete seems fairly innocuous but concrete is a caustic substance which can cause severe burns. The alkali burns caused by concrete will continue to get worse until they are treated. Concrete causes damage slowly, so a burn can develop over hours or even days. Concrete burns can blister, swell, ooze and bleed. Even after a short exposure, 2nd or 3rd degree burns can develop. In severe cases, the burn can go down to the bone. Once the burn has been identified much of the damage has already occurred and further damage can be hard to prevent. In some cases, skin and tissue damage is so severe amputation of a limb has been necessary.

Treatment consists of removing any clothing, including shoes, which have concrete on them. Fibers from clothing will enhance the chemical reaction and increase the severity of the burn. Once clothing is removed, brush off any pieces, specks or dust of concrete. When water is added to dry concrete powder, the pH becomes very alkaline and this will make the exposure worse. Irrigate skin with water or saline. If the concrete is imbedded in the skin, a pre-operative scrubbing solution and brush may need to be employed. Testing the pH of the skin will guide need for further irrigation. Checking the pH 15 minutes after the irrigation will allow the alkali time to diffuse back to the surface of the skin. Continue irrigation until skin pH is at neutrality (pH 5.0-5.5).

Cold compresses to the skin will relieve pain and decrease inflammation. If the lower extremities are involved, elevate above the waistline to decrease edema. Cover the burns with non-adhesive bandage and contact a surgeon or burn specialist. Minor concrete burns may only need irrigation and antibiotic cream. A doctor should evaluate the patient to make sure the burn is not deeper than it appears.

For eye exposures, irrigate eyes for at least 30 minutes. Check the pH of eye frequently and until the pH has remained neutral (pH 7.1-7.2) for at least 30 minutes. Severe exposures may require prolonged irrigation of many hours. Consultation with an ophthalmologist is recommended.

For more information and further recommendations call the Iowa Poison Control Center at 1-800-222-1222.

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Did you know ……
You can text the word “poison” to 797979 with your smartphone and you will automatically be texted back a link which will download a vCard (an electronic business card) into your contacts. The vCard is pre-loaded with the contact information for “poison control.” Double check your contacts to verify it was saved under “P” for Poison Control. This service works on iPhones and androids.

If you have an iPhone, you will also find that Siri does immediately know the number for poison control without searching for it online if it’s in your phone as a contact.

Poison Help is just a phone call away. Be prepared.