



Responding to Chemical Burns

Do you know what to do if you or a co-worker are blinded or severely burned by a chemical splash? The only solution is quick action and for that, you need to know what to do and where to go when an accident occurs.

Know Your Chemicals

The following chemical groups; commonly used in industry and in the home, cause chemical burns: reducing agents such as sodium, potassium and lithium used in metal cleansers and soldering processes; strong acids such as sulfuric, muriatic, tannic and hydrofluoric acid; bleaching agents and strong bases such as lye.

What Are Chemical “Burns”?

Chemical burns are different from heat burns in two ways: They usually produce no heat though the victim may feel a burning sensation and they go on burning until every bit of the chemical is removed. This is due to the fact that chemical reacts with body tissue to cause the burn. The longer the chemical remains on the body, the deeper the burn. Consequently, treating a chemical burn is a race with time.

Water and Lots of It!

All laboratories on campus must be equipped with emergency showers and eyewash stations. When you are dealing with a chemical burn, your top priority is to get under running water as fast as possible and stay there for at least 15 minutes. Clothing contaminated with the caustic chemical should be removed after you’re in the shower.

Since a burn victim may panic or be in extreme pain, you must know the quickest route to the shower like the back of your hand. You should be able to get there in 15 seconds or less. If no shower is available, use tap water or a garden hose but remember that these water sources may not provide the best water pressure and should not be relied on if a shower is available.



Eyes Need Special Treatment

If a chemical splashes into your eyes, you will not be able to see where you are going. This is why it is important to know where the eyewash stations are located at all times. As a laboratory you should have special drills in which employees are required to find the eyewash station blindfolded; or use a buddy system for ensuring that injured employees get the help they need. The eyewash station is designed to provide low-pressure water to the eyes. Remove contact lenses and let water flow for 15 minutes or more.

If you must use water from other sources, avoid spraying the water directly on the eye; the pressure can cause damage. The victim’s head should be sideways, with the affected eye below, so that chemicals won’t wash into the other eye. A helper should pour water over the bridge of the nose, letting it flow over the eye.

First Aid

Once the burn has been thoroughly flushed and all contaminated clothing removed, cover the burns (including affected eyes) with dry, sterile dressings and get medical attention immediately. Avoid using neutralizing solutions or ointments on the burn. Watch for shock symptoms: clammy, pale skin; rapid pulse; irregular breathing; nausea; confusion and enlarged pupils. To treat shock, keep the victim lying down with the feet and the burned areas raised. If the victim is vomiting, turn his or her head to the side. Give fluids only if medical help is more than an hour away; then give cool water only.

