

# Chemical Burn

## Do You Know How to Treat a Chemical Burn?

**Quick reactions can make the difference between sight and blindness**

It can happen in the blink of an eye. While pouring liquid drain cleaner down a sink, some of the chemical splashes up in your face, hitting you squarely in the eye. Chemical injuries don't just happen in the workplace. Most homes have dozens of everyday products that pose tremendous danger to vision if they contact the eye.

The severity of the injury is related to whether the chemical is alkali or

acid-based. Alkali chemicals are more destructive than acidic chemicals because of their ability to adhere to the eye and penetrate tissues. However, acid burns may be compounded by glass injuries caused by an explosion.

Often, the difference between a serious but treatable injury and losing vision is a matter of understanding a few principles of ocular first aid.

### Alkali- based chemicals

- Lime (cement, plaster, whitewash)
- Drain cleaners
- Lye
- Metal polishes
- Ammonia
- Oven cleaners

### Acid-based chemicals

- Swimming pool acid (muriatic acid)
- Battery (sulfuric) acid

### Emergency care

After chemical exposure, the first step is to **immediately** (within seconds) begin flushing the eye with water. If the accident occurs in an industrial setting, special irrigating facilities should be available. If the injury happens at home, begin flushing the eye with water right away, call for help immediately and contact your local ophthalmologist. The easiest way to irrigate at home is for the patient to hold his or her head over a sink while the helper continuously pours water over the eye with a glass or cup. It is important to gently hold the lids apart while irrigating in order to rinse underneath the lids and wash away as much of the chemical as possible. Using a dry cloth is helpful because the lids are difficult to hold back when they are wet. Continue flushing the eye for approximately 20 minutes.

### First aid at home

- Help the patient hold his or her head over a sink
- Gently hold the lids apart with a cotton swab or dry cloth
- Pour water over the eye, making sure to rinse inside the eyelids
- Call your ophthalmologist

## **Secondary care at the ophthalmologist's office**

If possible, bring the chemical used at the time of the accident to the doctor's office. The type of chemical, concentration, and key ingredients may give the doctor valuable information needed for treatment. The doctor may continue irrigation to insure that the chemical is diluted as much as possible. The eye will be carefully examined under magnification to determine the extent of the injury and whether there are any foreign particles imbedded in the eye.

## **An ounce of prevention...**

Taking care to prevent chemical injuries is the best first aid. Follow these simple steps to reduce your risk:

- Follow package directions and warnings before using chemicals
- When using chemicals, always wear safety glasses
- Never put your face over a drain after applying chemicals

The chance of regaining useful vision following a chemical accident is dependent on the nature and type of injury. However, knowing how to initiate treatment at home greatly increases the odds of recovery and saving vision.