

Eye - Chemical In

Adult HouseCalls Symptom Checker

DEFINITION

Chemical gets into the eye from fingers, contaminated object, spray or splash

Harmless Chemicals

- The following liquid products are harmless to the eye: bubble bath, cosmetics, deodorant, foods (e.g., lemon juice), hair conditioner, hair spray, hand lotion, laundry detergent (liquid), medications, shampoo, shaving cream, soap, sunscreen, and toothpaste.
- The following substances are also generally harmless, but will cause transient irritation: hydrogen peroxide, rubbing alcohol and vinegar.
- Mace and pepper spray are used in personal protection devices. Eye exposure results in marked eye pain and tearing. Usually these symptoms subside in 30 minutes and there is no lasting damage.

Harmful Chemicals

- Eye contact with acids or alkalis can cause severe damage to the eye. Both need immediate irrigation followed by immediate referral to an emergency department.
- **Acids:** Acids include hydrochloric acid, nitric acid, sulfuric acid, phosphoric acid, oxalic acid, or any other product labeled as an acid. Products that are called drain cleaners, toilet bowl cleaners, metal cleaners, de-scalers, or battery fluid should be assumed to contain acid until proven otherwise.
- **Alkalis:** Alkalis include lime, lye, potassium hydroxide, sodium hydroxide, calcium hydroxide, and industrial-strength ammonia. Any product that is called a drain cleaner, oven cleaner, bathroom cleaner, or industrial cleaner should be assumed to contain alkali until proven otherwise.
- Two weak alkalis that usually don't cause any harm are household bleach and household ammonia.

See More Appropriate Topic (instead of this one) If

- Something besides a chemical got in your eye, read EYE, FOREIGN BODY IN
- No chemical in your eye, and EYE, PUS OR DRAINAGE is your main concern

FIRST AID Advice for Chemical in the Eye:

- Immediate and thorough irrigation of the eye with tap water should be done as quickly as possible (Reason: to prevent damage to the cornea).
- If one eye is not burned, cover it (if possible) while irrigating the other.

Duration of Irrigation:

- For **harmless substances** (e.g., sunscreen or hair spray), irrigation only needs to be carried out for 2-3 minutes.
- For **stronger chemicals** that cause more irritation and stinging (e.g., ammonia, vinegar, alcohol or household bleach), flush the eye for 5-10 minutes.

- For **acids**, irrigate the eye continuously for 10 minutes.
- For **alkalis**, irrigate the eye continuously for 20 minutes.
- For any **chemical particles** that can't be flushed away, wipe them away with a moistened cotton swab.

Special Notes:

- Never irrigate with antidotes such as vinegar (Reason: the chemical reaction can cause more damage) .
- Tell the patient to call back immediately if they are unable to carry out the irrigation (Reason: needs a topical anesthetic in the E.D.).

WHEN TO CALL YOUR DOCTOR

Call Your Doctor Now (night or day) If

- You think you have a serious injury
- Acid or alkali was the chemical
- Cloudy spot or sore on the cornea (clear central part of eye)
- Blurred vision persists after irrigating the eye
- Eye pain persists after irrigating the eye
- Continued tearing or blinking persists after irrigating the eye
- **NOTE:** When you get a chemical in your eye, irrigate eye immediately before calling (see **First Aid**)

Call Poison Center Now

- All chemical exposures

EXCEPTION: household soap, sunscreen lotion or other obviously harmless substance

- National 800 phone number is 1-800-222-1222 or check the front cover of your phone book
- **NOTE:** When you get a chemical in your eye, irrigate eye immediately before calling (see **First Aid**)

Call Your Doctor Within 24 Hours (between 9 am and 4 pm) If

- You think you need to be seen
- Redness persists for more than 24 hours

Call Your Doctor During Weekday Office Hours If

- You have other questions or concerns

Self Care at Home If

- Harmless chemical in the eye with no complications and you don't think you need to be seen

HOME CARE ADVICE

Home Care Advice for Harmless Chemical in the Eye

Irrigate the eye immediately.

Eye Irrigation Method #1 -- Immersion:

- Immerse the entire face into a sink or basin filled with lukewarm tap water.
- With the face under water, open and close the eyelids. You may need to use your fingers. Look from side to side.

Eye Irrigation Method #2 -- Flushing:

- Slowly pour lukewarm water into the eye from a pitcher or glass.
- Or, place your head under a gently running faucet or shower.
- Hold the eyelid open during this process.

Duration of Irrigation for Harmless Substances:

- For harmless substances (e.g., household soap, sunscreen or hair spray), irrigation only needs to be carried out for 2-3 minutes.
- For stronger chemicals that cause more irritation and stinging (e.g., ammonia, vinegar, alcohol or household bleach), flush the eye for 5-10 minutes.

Vasoconstrictor Eye Drops: Red eyes from irritants usually feel much better after the irritant has been washed out. If they remain uncomfortable and bloodshot, use some long-acting vasoconstrictor eye drops (e.g., Visine). Use 1 to 2 drops. May repeat once in 8-12 hours.

Contacts: Patients with contact lenses need to switch to glasses temporarily (Reason: to prevent damage to the cornea).

Expected Course: The pain and discomfort usually pass 1 hour after irrigation.

Call Your Doctor If:

- Pain or blurred vision lasts longer than 1 hour after irrigation
- Redness lasts longer than 24 hours
- You become worse

Contacting the Poison Center

1. When in doubt call the poison center.
2. **United States:** The national toll-free number is **800-222-1222**.
3. **Canada:** In Canada there is no national toll-free number; call your local poison control center.

And remember, contact your doctor if you develop any of the "Call Your Doctor" symptoms.

References

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