

Continuous Eye Irrigation

● SKILL SNAPSHOT

Purpose

- Continuously flushes the ocular surface to remove chemical/particulate contaminants and normalize ocular pH.

When to use

- Chemical eye exposure or ordered ongoing irrigation; immediate flushing takes priority over a complete history.

Supplies needed

- Large-volume ordered irrigant (normal saline/LR); IV tubing/ocular irrigator; topical anesthetic if ordered; PPE; pH paper; towels/basin; exam light.

● PREP + PATIENT SETUP

- Activate emergency/poison protocol; identify chemical, time, contact lenses, and both eyes involved without delaying irrigation.
- Apply splash PPE; remove contaminated clothing as appropriate.

● VAULT TIP

- Time is tissue. Start flushing first, then refine the setup while irrigation continues.

● STEP-BY-STEP

- Begin irrigation immediately. Do not wait for provider arrival or a specific solution; use available clean water until medical irrigant is ready.
- Hand hygiene; identify patient; apply gloves, gown, and eye/face protection.
- Position affected eye lower than the unaffected eye with head tilted toward the involved side. Protect the other eye.
- Remove contact lenses if easily removable; never delay flushing to search for them.
- Instill ordered topical anesthetic if available and not contraindicated.
- Connect warmed irrigant to tubing/ocular irrigation device; prime tubing completely.
- Direct flow from inner canthus toward outer canthus and into a basin. Do not aim pressure at the cornea.
- Hold lids open; ask patient to blink and move eyes in all directions. Evert lids and sweep visible particles only when trained/ordered.
- Continue uninterrupted irrigation with prescribed flow and volume. Ensure runoff does not contact skin, staff, or the other eye.
- Check ocular surface pH according to protocol; pause briefly before testing to avoid measuring irrigant alone.
- Continue until pH is neutral and remains stable on repeat testing per protocol/provider direction. Alkali injuries often require prolonged irrigation.
- After irrigation, reassess pain, vision, redness, tearing, pH, and corneal appearance; arrange urgent ophthalmic evaluation.

● SAFETY REMINDERS

- Irrigation is the first priority for chemical burns.
- Do not neutralize acid with base or base with acid.
- Do not force embedded objects or irrigate a suspected open-globe injury.
- Prevent contaminated runoff into the unaffected eye.

● COMMON MISTAKES

- Delaying for history, visual acuity, or special solution.
- Directing a high-pressure stream at cornea.
- Stopping when pain improves instead of using pH.
- Failing to evert lids/check retained particles.

● DOCUMENTATION

- Chemical/exposure time and eye(s) affected.
- Initial/final vision and ocular findings if obtained.
- Solution, volume, flow, duration, device.
- Serial pH values and time stable.
- Pain response, medications, consultations, disposition.