



EYE CHEMICAL EMERGENCIES TREATMENT

This document sets out the immediate management of any injury to the eye from any chemical such as cleaning products or chemical products (which follows the instructions from the College of Optometrists).

Symptoms

Symptoms following an injury to the eye(s) from any chemical can include:

- immediate pain,
- redness,
- watery eyes, and /or
- vision loss

NB: Severe chemical trauma may be relatively pain free (damage to superficial nerves).

Management

- Irrigation should begin immediately at the scene of the accident with any non-toxic liquid (e.g. tap water).
- A member of staff should assist pupils in undertaking the irrigation and should either seek assistance from the Medical Centre or take the pupil to the Medical Centre immediately after the irrigation.

On presentation to a member of the Medical Centre team, they should undertake the following procedures:

- Before examination, the pH of both eyes should be checked (to compare non-affected eye pH if relevant)^{1,2}
- The patient should receive copious prolonged irrigation of the eyes with sterile normal saline (at least one litre); if not immediately available, use tap water.

¹ Chemical pH chart kept in medical Centre with universal pH paper.

² Please use the universal pH paper and blot in conjunctival fornix where the tears lie (between the eye and the bottom lid) the colour of the paper is usually yellowish-brown colour.

- The eye(s) should be irrigated for 15-30 minutes until pH between 7 and 8 (normal value 7.4, range 7.3 – 7.7): to measure, cease irrigation, wait for 5 minutes, re-check pH both eyes.
- If not improving or a high-risk chemical (such as alkaline) the patient should be referred to the local eye emergency unit (Kings College Hospital is the closest to the College and the patient should be taken directly to the Emergency Department).
- If minor and improving the Medical Centre staff can advise the patient (if a member of staff/visitor) to visit or a parent (if a pupil) to attend their local minor eye conditions scheme optician ([MECs](#)) for review in a few days.
- When the pH is normal, it should be checked again after additional 30 minutes.
- A lower lid eversion and upper lid eversion (double eversion if possible) should be undertaken to check for presence of particulate matter and if relevant any particulate matter should be removed by sweeping the eye with a moistened cotton bud.
- It should be ascertained which chemical caused the injury (can check online or use Toxbase if access).
- The VA (visual acuity) should be checked (important even if pain and/or swollen lids make this difficult).
- The patient should be advised not to wear contact lens until after satisfactory review.

Policy Owner:	Lead Nurse
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