

Caustics/corrosives include strong acids and alkalis. Ingestion can cause life-threatening airway compromise and severe GI tract injury.

## Toxicity / Risk Assessment

Severity is determined by amount ingested, concentration, pH and tissue contact time. Deliberate self-poisoning or accidental small volume ingestion of highly corrosive agents can cause serious injury. Solids are worse than liquids.

- strong acids (pH<2) e.g. metal cleaners, toilet bowl cleaners
- strong alkalis (pH >12) e.g. oven and drain cleaners
- dilute household bleach, detergents, ammonia unlikely to cause major effects

**Clinical features:** (asymptomatic to life-threatening)

- **Upper airway burn:** stridor, drooling, coughing, swelling
- **Oral mucosal injury:** erythema, ulceration, pain  
(absence of oral burns does not exclude GI injury)
- **GI effects:** vomiting, chest/abdominal pain, risk of oesophageal or gastric perforation

- **Shock:** mediastinitis, peritonitis

- **Late sequelae:** GI stricture, carcinoma

## Suggested investigations in serious injury

- CT chest/abdomen (in selected cases based on severity)
- Endoscopy (ideally 6-24 hours post exposure)

## Management

**Airway:** Intubate early if signs of airway compromise. Prepare for difficult airway or surgical airway

**Decontamination:** No role for activated charcoal, neutralisation fluids or blind insertion of NGT

Keep nil by mouth for at least 4 hours before trial of oral fluids (provided patient is asymptomatic)

## **Discuss with gastroenterology/surgical team:**

- ALL markedly symptomatic patients with a highly corrosive agent ingestion
- If **Alkali:** all intentional ingestions or if unintentional: vomiting AND drooling or stridor alone
- All strong **Acids** (pH<2)
- Patients with suspected GI perforation/respiratory compromise/peritonitis/mediastinitis
- Patients requiring ongoing analgesia or unable to tolerate oral intake after 4-6 hours post exposure
- Timing of endoscopy should be discussed with local gastroenterology team but ideally performed 6- 24 hours of ingestion when findings are obvious, and risk of perforation is lower
- Endoscopy is contraindicated with known or suspected perforation

## **Supportive care**

- Corticosteroids may reduce stricture formation in select cases (depends on endoscopy findings)  
Not routinely used as may increase risk of perforation in unselected cases.
- Proton pump inhibitors and H2 antagonists are often used but have no proven benefit.

## **Disposition**

- Discharge pending mental health assessment if asymptomatic and tolerating oral intake six hours post exposure