

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 late stricture formation in select cases (discuss with Gastroenterology).
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