

**Suspected button battery ingestion is a surgical emergency and urgent removal from the oesophagus or airway is required due to potential for corrosive injury**

## Toxicity / Risk Assessment

Lithium batteries of >20mm diameter = ↑ risk

for lodging and causing serious injury

Smaller cells, however, may also lodge and cause injury

Oesophagus + airway are the main sites of concern

## Injury can occur within 2 hours

High level of caution should be exercised with young children as early symptoms are often non-specific (pain, nausea, vomiting or loss of appetite) and a history may not be readily available

Further imaging beyond plain AXR is only required **after** endoscopic removal to evaluate extent of injury (CT, MRI, bronchoscopy)

There is **no** indication to measure blood concentrations of mercury, lithium or other battery ingredients

**Management** - X-ray entire alimentary tract in any suspected button battery ingestion

**URGENT** endoscopic/surgical removal if:

- Battery/batteries lodged in airway /oesophagus /ear/nose/rectum/vagina
- Co-ingestion of strong magnet or multiple batteries swallowed
- Clinically unstable / actively bleeding

*10 mL of honey every 10 minutes (up to 6 doses in children > 12 months old) may be administered orally as first aid but **MUST NOT** delay transport to hospital, X-ray, and endoscopy if indicated.*

After button battery removal from the proximal oesophagus or oesophagus, all patients should undergo awake nasopharyngeal endoscopy or bronchoscopy to exclude vocal cord dysfunction or trachea-oesophageal fistula prior to discharge to establish a baseline for further assessment.

## Battery within stomach

- Symptomatic patients (pain, nausea, vomiting +/- haematemesis) should have **URGENT** endoscopy
- Asymptomatic patients may be discharged and return for repeat AXR in 48 hours
- **Emergent** removal is indicated in asymptomatic patients if still in stomach 48 hours post ingestion
- **Patients should be advised to represent earlier if they develop any symptoms in the interim**

## Battery distal to the stomach

- If asymptomatic, can be discharged home to observe for passage over the next 1-2 weeks
- Patients should be advised to represent earlier if they develop any symptoms in the interim
- A repeat AXR should be obtained to ensure passage after 10-14 days if not observed in faeces

**In scenarios where endoscopic removal is indicated but not possible, refer for surgical removal**