



Clinical Practice Guidelines: Other/Button battery ingestion or insertion

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Purpose	To ensure a consistent approach to the management of button battery ingestion or insertion.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
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Button battery ingestion or insertion

September, 2024

Button batteries are small, coin shaped, single cell batteries most commonly used in residential households to power small electrical devices (e.g. hearing aids, watches, children's toys and musical greeting cards).

All suspected button battery ingestions/insertions should be considered a medical emergency. Mucosal trauma will commence in as little as 15 minutes and if untreated, may lead to life-threatening bleeding or death secondary to major vascular injury.^[1,2,3]

Despite assurances from the parents/carers that no button batteries were available and/or the patient's denial of ingestion/insertion, it is essential that clinicians consider button battery ingestion for all patients.

Clinical features



High risk features for airway compromise:

Choking or gagging (sometimes overheard rather than directly observed)

- hoarse voice
- dyspnoea
- stridor
- drooling
- painful swallowing
- vomiting

Clinical features (cont.)



Common symptoms in cases of delayed button battery ingestion:^[1,2]

- chest pain
- abdominal pain
- unexplained gastrointestinal bleeding (melena)
- bloody/black stools
- regurgitation or drooling
- vomiting without fever or diarrhoea
- haemoptysis
- hematemesis
- prolonged food refusal/inability to swallow solids

Common symptoms in cases of button battery insertion:

- Nasal bleeding or ear discharge
- Vaginal bleeding or discharge
- Eye pain or discharge



Risk assessment

- Any button battery with residual voltage can cause significant tissue damage.
- 12% of children who ingested a 20 mm button battery suffered severe or fatal injuries^[3]
- Peak age for button battery related injury is 1–5 years; younger cases having been reported in literature (possibly fed batteries by siblings)^[1]
- Signs and symptoms are non-specific; history provided at the patient's residence may alert officers to the possibility of button battery ingestion
- Denial of button battery ingestion in a child of any age cannot exclude it^[1]
- Most fatal/severe cases are associated with occult ingestion of a battery (caregivers are often unaware that the battery is missing/has been ingested). In these situations, there may be no history suggesting battery related injury.



Additional information

- For children (> 1 year of age) and within 12 hours of a suspected or confirmed button battery ingestion a single 10 mL (2 teaspoon) dose of honey^[4] or jam^[5] may be administered orally – under no circumstances is administration to delay transport to hospital.
- All confirmed or suspected button battery ingestions or insertions should be transported code 1 to an appropriate x-ray capable facility.

Button battery safety measures

- Some button battery manufacturers have recently introduced safety measures that include the presence of a bitterant to discourage swallowing and a blue indicator dye that is triggered by moisture. The dye may appear on the person's hands or around their mouth. However, it must be noted that the presence of button battery bitterant does not eliminate ingestion or insertion risk and the absence of dye markings does not rule out button battery ingestion or insertion.

