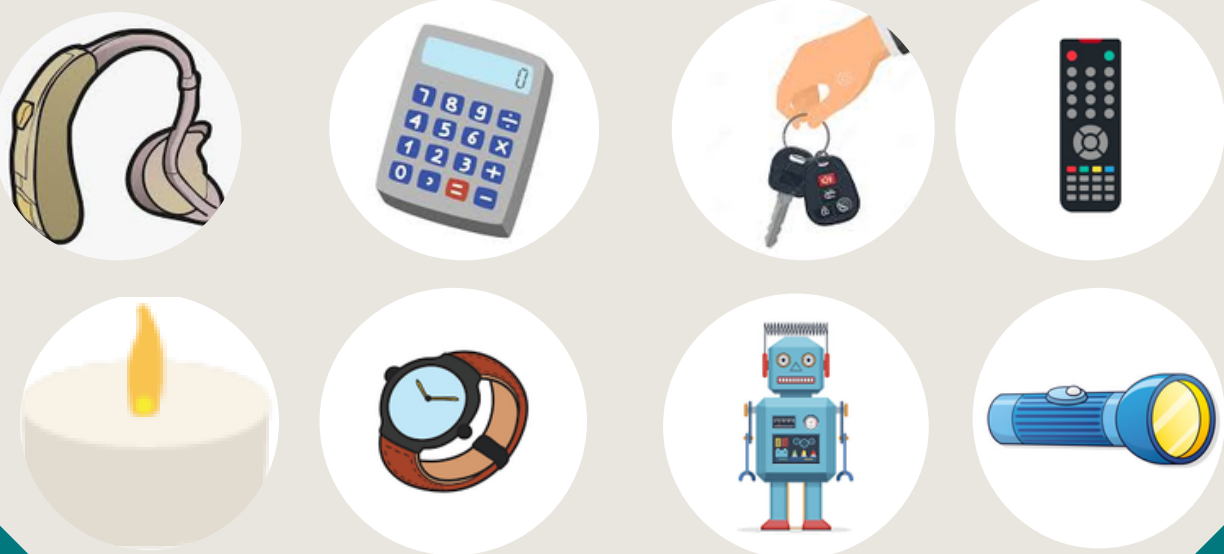


EMS RESPONSE: BUTTON BATTERY INGESTIONS



WHAT ARE BUTTON BATTERIES

These are small, metallic, usually round batteries found in everyday devices such as watches, remote controls, toys, keys/key fobs, hearing aids, and other household items like battery operated candles.



**KNOWN/SUSPECTED
BUTTON BATTERY
INGESTION:
1-800-498-8666**
POISON CONTROL
BATTERY INGESTION HOTLINE

INCIDENCE OF INGESTION



There are > 7,000 emergency room visits annually for button battery ingestion. That's 1 child approximately every 75 minutes! Children <6 years old are at the greatest risk, with the peak age of ingestion being 1 year old.

MECHANISM

- Button batteries are corrosive
- May cause caustic injury and tissue necrosis
- Leakage of battery contents, heavy metal toxicity, & electrolysis may cause burns through a child's esophagus in as little as 2 hours.
- Injury occurs the whole time the battery is in the esophagus, not just when it is in stomach acid.
- The severity of damage correlates to the location of the battery as well as its size and voltage.
- The greatest risk:
 - Batteries \geq 20mm in diameter (size of a quarter)
 - Being impacted at the level of the aorta
 - When the negative pole (narrow side) faces posteriorly



WHAT TO DO

- Transport to nearest hospital!
- Consider TRAUMA ACTIVATION if there is a history of a bleeding disorder
- If child is >1 year old, give 2 teaspoons of honey every 10 min. x 6
- Keep child NPO (except for honey)
- Listen to the caregivers



INJURY

- Aortoesophageal Fistula
- Esophageal wall injury
- Esophageal strictures
- Spondylodiscitis
- Laryngeal nerve injury
- Hemorrhage
- DEATH



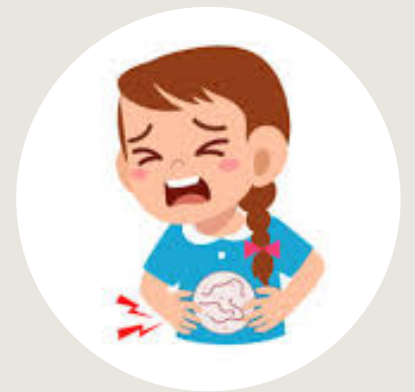
WHAT NOT TO DO

DO NOT DELAY TREATMENT!

- Do NOT wait for symptoms
- Do NOT induce vomiting
- Do NOT encourage "home treatment" or "wait and see" in lieu of transport
- These are NOT the patients to talk out of transport

SIGNS AND SYMPTOMS

- Fever
- Drooling
- Vomiting, abdominal pain
- Feels "sick" to the stomach
- Coughing, difficulty breathing
- Diarrhea and/or dark, bloody stool
- Not acting appropriate for age and development



EMS Education brought to you by the Texas Governor's EMS
Trauma and Advisory Council, Pediatric Committee (2025)

Adapted from:

- Poison Control Button Battery Ingestion Triage and Treatment Guideline (2018). Ntl Capital Poison Center.
- Yee, S., Hoagland, M., Ing, R., Chatterjee, D. (2022). Perioperative management of button battery ingestions in children. Department of Anesthesiology, Children's Hospital, Aurora, CO.
- Campbell, B. and Pelow, S. (2020). Esophageal Button Battery Clinical Management Algorithm. Connecticut Children's Hospital.