Button battery ingestion

What is a button battery?
A button battery is a small single cell flat battery, shaped like a button. Button batteries can vary in size, from 0.5cm to 2.5cm in width. Sometimes they are called 'coin' or lithium batteries.

All button batteries are dangerous. The most common size to cause severe damage is the 'coin' battery. A 'coin' battery is the size of a 10 cent piece (2cm wide).

Where are button batteries used?
Button batteries are used in many different small electrical products. When they come with a product, they may be loose in the box or already installed in the product. Some examples include remote controls, watches, calculators, toys, flashing decorations, flameless candles, reading lights and medical equipment like thermometers and glucometers.

Are button batteries dangerous?
Swallowing or inserting any button battery, old or new, can cause life threatening injuries and even death. A swallowed battery that becomes stuck in the oesophagus (food pipe) is particularly dangerous. Batteries which become stuck in the nose, ears or under an eyelid can also cause local burns.

When swallowed, the left over electrical current in a button battery reacts with moisture to produce a strong alkali chemical. The chemical can cause serious internal burns and bleeding. The batteries can also leak chemicals which can cause serious burns. The coin shaped batteries are easily caught in the oesophagus, and when stuck start to cause damage immediately and can erode through the oesophagus wall very quickly (within 2 hours).

Who is at risk?
Young children are at most risk of poisoning from button battery ingestion. Young children are curious and like to explore by putting everything in their mouth. This leads to more accidental ingestions. Older children with developmental delay or neurobehavioural disorders may also accidentally swallow or insert button batteries.

A young child's smaller body size also means they are more likely to have a button battery caught in the oesophagus, causing serious damage.
How common are these injuries?

Every day in Australia there is at least one child who needs to go to hospital because of button battery ingestion. In 2019, the NSW Poisons Information Centre took 190 calls regarding button battery exposures. The Australian Paediatric Surveillance Unit has reported one severe case each month, here in Australia, over the last 2 years. These children often need emergency rescue from rural areas and days to weeks of hospital care. There have been 2 deaths in Australia.

What are the symptoms of a child who has swallowed a button battery?

Children often swallow button batteries without anyone knowing. They may be too young or unable to say what they have done. Parents sometimes hear or witness choking as the battery is swallowed. Following this, symptoms can include decreased appetite or difficulty eating solids (they may still be able to drink), drooling, noisy breathing/coughing, vomiting/regurgitation of food, fever and chest pain (sometimes they make a grunting noise). Spitting blood or blood-stained saliva or having very dark stained or black bowel motions, can indicate bleeding or ulceration somewhere in the upper digestive system. Sometimes vomited blood can come out the nose and be mistaken for a nose bleed.

First aid for swallowed/inserted button batteries

- If your child is having any difficulty breathing, call 000 immediately.
- If your child is not having difficulty breathing, immediately call Poisons Information Centre 13 11 26.
- You will be directed by Poisons staff to an emergency department that is best able to treat your child.
- Do not try to make your child vomit.
- Do not let your child eat or drink while awaiting medical advice.

If you know or even suspect that your child has swallowed a button battery you must act immediately.

How is a swallowed button battery diagnosed?

Your child may need to have an x-ray of the appropriate area to locate the battery.

Is there a Law or an Australian Standard for button batteries?

The law, Fair Trading Amendment (Children’s Toys) Regulation 2010, states that all toys for children 36 months and under in Australia must comply with the Australian Standard (AS/NZS ISO 8124.1:2002). The standard states that toys for children 3 years and younger must have any batteries secured in a compartment by a screw or must need 2 simultaneous independent movements to open the battery compartment. This is to ensure that the battery compartments are child-resistant. In addition, such toys are required to not break apart/release small parts when dropped.

No other products are currently required by law to have child-resistant battery compartments.

How can you prevent children from swallowing button batteries?

- Button batteries come into our homes without us having to buy them; gifts, giveaways, free medical devices such as glucometers. Be vigilant.
- If you are buying a new electronic product, try to buy one that does not use button batteries.
- Keep new and used button batteries and all other batteries in a child-resistant, locked cupboard that is at least 1.5 metres above ground, out of reach of children.
- Check that all button battery operated products have a child resistant compartment and that the compartment is correctly closed (i.e. the screw or mechanism is engaged). If the batteries are not secured in with a screw, keep out of reach of children. You can also secure the battery compartment with strong tape.
- Only buy new batteries that are in child resistant packaging ie: the packets need to be opened with scissors.
• As soon as you have finished using a button battery, put sticky tape around both sides of the battery to make it less attractive to children and minimise fire risk. Dispose of them immediately in an outside bin, out of reach of children, or recycle safely.

**Remember:**

• Call 131126, if you suspect a battery has been swallowed/inserted.
• You will be directed to go to the nearest hospital emergency department suitable to treat your child.
• Keep all new and old button batteries out of reach of children ie; in a child-resistant locked cupboard that is at least 1.5 metres above the ground.
• Share this information with family and friends.