

Batteries O' Batteries!!!

Help Keep You Entertained but Oh So Dangerous

Each year thousands of children are treated at local emergency rooms and urgent care centers for ingestion of various items. One of the most common items are batteries and in particular, button or lithium coin batteries. They are small and shiny and often fascinate young children. During this pandemic (COVID-19) with families spending more time at home, the number of ingestions by children has gone up significantly. Many of these children go on to lose their lives as a result of ingesting them and others, if they survive, are left with serious injuries. These items may be inserted in other body orifices and go undetected as well causing serious harm and injury in those areas (i.e., nose and ears).

Button or lithium batteries are found in many household small electronic items (i.e., remote controls, thermometers, games and toys, hearing aids, calculators, bathroom scales, key fobs, watches and electronic jewelry, cameras, holiday ornaments, flameless candles and many other small household items). Young children and crawling infants by nature are very curious and love to explore their environments. Often these items will fall into small spaces around the house or parents and caretakers will forget that they are around. Curious young hands will find these items and ingest them. When these batteries come into contact with body fluids, they generate a current that produces small amounts of sodium hydroxide, which is lye. If the battery gets stuck somewhere in the body, this chemical will burn a hole at that spot. Infection usually follows. The result can be serious injury and illness, long-term disability or at worst, death.

Symptoms of ingested items could be virtually absent or similar to those of a common infection. This can make it challenging for health care professionals who are evaluating the child to diagnose. If they have been put into a body orifice, there may be noticeable drainage or pain. Since these symptoms are not unique to button battery injuries, there can be delayed diagnosis and even greater injury as caretakers may delay seeking medical care. Batteries lodged in the nose or ear can cause extensive damage to structures such as the eardrum and nasal septum and may lead to permanent breathing issues, loss of smell and hearing disability. In the esophagus, which is full of fluids, it will immediately begin to burn and produce damage there and to nearby

structures in the chest (i.e., large blood vessels, windpipe, and lungs). This damage can cause immense bleeding and subsequent death or, in those who survive, severe disabilities.

Of importance when even suspected, is to seek immediate medical care. An X-ray will help make the diagnosis in most cases and immediate removal will limit damage. The goal is to minimize the damage that these items may cause. Parents and caretakers need to be aware of the risk that batteries can have and keep loose and spare batteries stored (as well as any item that uses them) and locked away in a child-safe place away from inquisitive young children.

Visiting your child's Pediatrician or other healthcare provider is very important as he/she will discuss prevention and provide guidance as part of your children's regular well visit as part of their anticipatory guidance. Also, when in doubt about anything, your visit provides the time to ask questions and have them answered.

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