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# **Cases Related To Ingestion Of Batteries Have Increased Over 20 Years**

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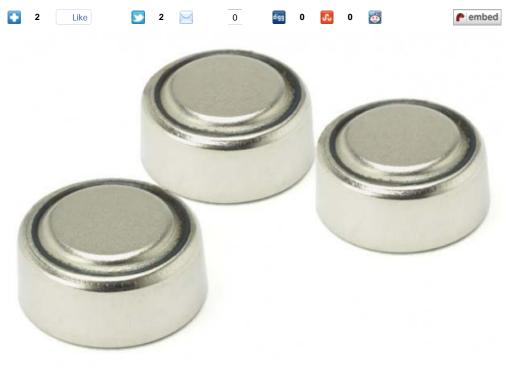


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### Connie K. Ho for RedOrbit.com

"Every 90 minutes, a child younger than 18 years of age is seen in a US emergency department for a battery-related problem." This is a statistic found in a report by researchers at the Center for Injury Research and Policy of The Research Institute at Nationwide Children's Hospital which focus on issues related to pediatric death and disabilities. They found that the yearly number of battery-related emergency department visits among children under the age of 18 has more than doubled over 20 years.

The report, recently published online and featured in the June 2012 print edition of Pediatrics, stated that there were 2,591 emergency department visits in 1990 and 5,525 emergency department visits in 2009. Researchers used data from the National Electronic Injury Surveillance System (NEISS), which is under the U.S. Consumer Product Safety Commission. The NEISS provides information regarding consumer product-related injuries as well as sports and recreation-related injuries that were treated in hospitals throughout the U.S. According to HealthDay, the four types of accidental contact included swallowing or inserting the battery in the ear, mouth, or nose. Boys also were the majority of the ER visits (approximately 60 percent).

"They're shiny, they're small, and children explore things developmentally with their mouth — if they don't know what something is, they put it in their mouth," Dr. Nicholas Slamon, a pediatrician at Nemours/Alfred I. duPont Hospital who has worked on battery-related injuries, told Reuters.

The researchers also found that over 75 percent of battery-related emergency visits were by children who were five-years-old or younger. Within this group, one-year-olds had the highest number of visits to the emergency room.

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29 percent of cases involved batteries that were meant to be used in toys or games. The majority of the other cases involved batteries in objects that weren't supposed to be used by children, such as watches (14 percent), calculators (12 percent), flashlights (9 percent), and remote controls (6 percent).

"We live in a world designed by adults for the convenience of adults, and the safety of children is often not considered," commented Dr. Gary Smith, the director of the Center for Injury Research and Policy at Nationwide Children's Hospital, in a prepared statement. "Products with easily-accessible battery compartments are everywhere in our homes today. By making a few simple design changes and strengthening product manufacturing standards, including products not intended for use by young children, we could prevent many of the serious and sometimes fatal injuries that occur when children are able to easily access button batteries in common household products."

The team of researchers also looked at the different types of batteries that were swallowed by children and found that 84 percent of cases involved button batteries. They believe that the high propensity of button batteries was due to the fact that many home electronics use button batteries to power up. A recent report also found that there was an increase in the number of fatal and severe button battery ingestions and the researchers linked the rise to the increased use of the three volt, 20 millimeter, lithium button batteries.

"The increased prevalence of the higher voltage 20mm lithium batteries is concerning because it coincides with an alarming 113 percent increase in battery ingestions and insertions by young children," commented Smith, who is also a professor of pediatrics at Ohio State University's College of Medicine, in the statement. "When a button battery is swallowed and gets caught in a child's esophagus, serious, even fatal injuries can occur in less than two hours."

For parents and guardians, there are a number of tips to help prevent battery-related ingestions and injuries. For one, parents and guardians can tape all the battery compartments of household devices shut. Secondly, they can also store devices that use batteries in high up places that are out of reach for children. Third, they can spread the awareness to other parents' and guardians so that children can be better protected. Parents who believe that their child has swallowed a button battery should immediately seek medical attention, so that an X-ray can check if the battery has not moved to the esophagus. According to ABC News, there are a few signs for parents and guardians if they believe that their child has swallowed a battery; these include drooling, having difficulty swallowing, and vomiting.

"Children should never be unattended and they should never be within reach of any object that can fit through a choke tube, which is basically the cardboard tube of a toilet-paper roll," explained Dr. Lee Sanders, an associate professor of pediatrics at Stanford University, in the US News article. "That's the best preventive strategy.

In terms of manufacturers and companies, researchers hope that these groups can post warnings on packaging for batteries and products to show that button batteries are child-proofed. As well, these products should be designed in a way so that a screwdriver is needed to open the battery compartment or should include a child-locking resistant mechanism.

Overall, medical professionals have indicated concern about the rise in battery ingestions.

"Whenever we see a marked rise in any cause of injury for a child, it's concerning from a public-health standpoint," continued Sanders. "So we need to investigate the root cause of this doubling. One possibility is that there is, in fact, increased exposure to button batteries themselves. But of course we might have to also look at other causes, like changes in the actual reporting of cases that might have taken place as the system for reporting improves or the coding for reporting improves."

Source: Connie K. Ho for RedOrbit.com

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