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More batteries to blame for kids' ER visits

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By Genevra Pittman

NEW YORK (Reuters Health) - The number of kids treated in emergency rooms after swallowing batteries -- or lodging them in their noses and ears -- has almost doubled over the past 20 years, a new study suggests.

Most of those ER trips are due to button batteries, coin-shaped batteries that have become ubiquitous in toys, remote controls and hearing aids and represent a shiny temptation to curious toddlers.

Those batteries carry extra risks, experts said, because if kids swallow them, they can become lodged in the esophagus and start an electrical current flowing through the tissue -- without kids showing any signs of immediate injury.

"If a child swallows a button battery, the parent might not see it happen and the child might not have symptoms initially -- and the clock is ticking," said Dr. Gary Smith, head of the Center for Injury Research and Policy at Nationwide Children's Hospital in Columbus, Ohio and one of the authors on the new study.

"We've seen children in less than two hours have severe, severe injuries from button batteries getting caught in the esophagus," he told Reuters Health.

Using a nationally-representative sample of about 100 U.S. hospitals with 24-hour ERs, Smith and his colleagues calculated that more than 65,000 kids under age 18 had a battery-related ER visit between 1990 and 2009.

The rate of those injuries almost doubled during the study period -- from about four kids for every 100,000 U.S. children each year, to between seven and eight per 100,000.

That's probably due to more and more household electronics, hearing aids and toys using button batteries, rather than the cylindrical AAAs and AAs. The research team reported Monday in Pediatrics that more than 80 percent of all battery-related ER visits involved button batteries -- most of which were swallowed by kids under five.

"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," said Dr. Nicholas Slamon, a pediatrician who has treated battery-related injuries at Nemours/Alfred I. duPont Hospital for Children in Wilmington, Delaware.

There are a few ways button batteries can cause injury, according to Slamon, who wasn't involved in the new research. They can lodge or wedge in the esophagus and push on its walls, or they can leak acid if the casing around the battery is eroded.

But the most common fear with button batteries, researchers said, is that they can create an electrical current flowing through tissue and burn a hole in the trachea or the esophagus -- even if the batteries don't have enough juice to power a remote control anymore.

Slamon told Reuters Health he and his colleagues see several kids a year who need emergency surgery to retrieve a battery from the throat, or the nose or ear.

But only a small number of visits require such serious intervention. Data from the current study showed that 92 percent of kids who came to the ER were treated then home.

Another new study, also from researchers at Nationwide Children's Hospital, found that over a similar 20-year time period, about two out of every 10,000 babies and toddlers went to the ER every year for injuries related to bottles, pacifiers and sippy cups -- mostly due to falls while kids were walking or running with those products.

That's still lower than the number of young kids who suffer injuries related to cribs and household cleaning products, for example, according to researchers led by Sarah Keim.

But most parents are aware of the need to put poisonous cleaning products out of reach, for example.

BE "DILIGENT"

Susan Sadaskus of Powell, Ohio, said she read all the information on how to baby-proof her house, setting up gates and covering outlets.

But it was just before Thanksgiving 2010 that she learned firsthand about one risk no one had warned her about, Sadaskus said.

While her 15-month-old son, Max, was playing on the living room floor, she noticed a piece of plastic she didn't recognize, and later found the stereo remote nearby, missing its battery casing.

"We'd never used the remote, so we weren't sure if there was a battery in it," said Sadaskus, who also said that until then, her son hadn't been prone to put foreign things in his mouth.

So it wasn't until dinner, when Max couldn't keep down any food or milk, that she and her husband decided to take him to their local ER -- "to err on the side of caution."

It was at the ER that doctors found the remote battery lodged at the top of her son's esophagus. Max was transferred via ambulance to Nationwide Children's and rushed into surgery to remove the battery.

At that point, the battery had been in Max's esophagus for a little over two hours, Sadaskus said. Surgeons weren't sure if they got the battery out early enough to prevent damage -- but a year and a half later, Max doesn't suffer any complications.

"The issue with this remote was the battery compartment was not secure -- there was not a screw on this battery compartment," Sadaskus said.

Since then, she and her husband have gotten rid of all remotes in the house, and throw away any singing greeting cards their son has gotten -- which also contain button batteries and can be easily ripped open.

"We really are diligent in making sure those button batteries are not in our house, or if they are in our house, they're secure."

Experts agreed that parents should make sure all compartments on battery cases are screwed in, if possible, or that they're securely taped shut.

And if parents are discarding a dead battery, it should be thrown out in a container, in the bottom of the trash where kids are unlikely to go fishing for it, Slamon said.

"The real way to prevent these (emergencies) is to prevent the event from happening in the first place," Smith said.

But, he added, "If (parents) suspect something, they need to get to the hospital and get an X-ray done immediately."

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