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## Children at risk as "button" battery use grows: study

Mon, May 14 2012

(Reuters) - Children face a growing risk from "button" batteries, according to a U.S. study showing a near doubling of emergency room visits in the past two decades as the objects can cause electrical or chemical burns if swallowed.

Most of those emergency room trips are due to coin-shaped batteries that have become ubiquitous in toys, remote controls and hearing aids and represent a shiny temptation to curious toddlers, according to a study in Pediatrics, the journal of the American Academy of Pediatrics.

"Button" batteries carry extra risks, experts said, because they can send an electrical current through esophageal tissue, eventually even burning a hole in the trachea or the esophagus - without children 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 Gary Smith, head of the Center for Injury Research and Policy at Nationwide Children's Hospital in Columbus, Ohio, one of the authors of the study.

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

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

The rate of those injuries almost doubled during the study period, from about four children for every 100,000, 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 previous cylindrical batteries, with more than 80 percent of all emergency room visits involving button batteries.

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

There are a few ways button batteries can cause injury, he added. 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 is that they can create an electrical current flowing through tissue, even if they don't have enough juice to power a remote control anymore.

Slamon and colleagues see several children a year who need emergency surgery to retrieve a battery from the throat, nose or ear. But only a small number of visits, about eight percent, require such serious intervention.

Experts agreed that parents should make sure all compartments on battery cases are screwed in or taped shut and dead batteries should be thrown into the bottom of the trash where children are unlikely to find them, Slamon added.

"The real way to prevent these (emergencies) is to prevent the event from happening in the first place," Smith said. "If (parents) suspect something, they need to get to the hospital and get an X-ray done immediately."

SOURCE: [bit.ly/js0h2P](http://bit.ly/js0h2P)

(Reporting from New York by Geneva Pittman at Reuters Health; Editing by [Elaine Lies](#) and Ed Lane)

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