

Study authors advise giving honey to children who swallow button batteries

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A new animal study found honey and sucralfate can reduce injuries caused by button battery ingestion. Researchers are hopeful the results will translate to children, who swallow the shiny discs about 2,500 times each year.

“Our recommendation would be for parents and caregivers to give honey at regular intervals before a child is able to reach a hospital, while clinicians in a hospital setting can use sucralfate before removing the battery,” co-principal investigator Ian N. Jacobs, M.D., director of the Center for Pediatric Airway Disorders at Children’s Hospital of Philadelphia (CHOP), said in a news release.

Button batteries can be found in common household electronics like remote controls, hearing aids, key fobs and cameras. When swallowed, they produce a chemical reaction that can cause serious tissue damage and can be fatal, according to the study “pH-Neutralizing Esophageal Irrigations as a Novel Mitigation Strategy for Button Battery Injury” (Anfang RR, et al. *Laryngoscope*. June 11, 2018, <https://onlinelibrary.wiley.com/doi/full/10.1002/lary.27312>).

Researchers aimed to find a weakly acidic viscous liquid that could protect the esophagus after button battery ingestion. Investigators included ear, nose and throat specialists from CHOP and Nationwide Children’s Hospital, several of whom are members of the AAP-affiliated National Button Battery Task Force.

The team placed 3-volt lithium batteries in the esophagi of pig cadavers. Every 10 to 15 minutes, they irrigated the tissue with one of the test liquids — honey, sucralfate, juice, maple syrup or sports drinks.

Honey and sucralfate were found to neutralize the pH to acceptable levels. The two liquids then were compared with saline in live piglets, where they proved to be more effective than saline and better protected the animals from serious injury. No animals treated with honey or sucralfate experienced esophageal perforations compared to half of those treated with saline.

“While future studies could help establish the ideal volume and frequency for each treatment, we believe that these findings serve as a reasonable benchmark for clinical recommendations,” Dr. Jacobs said. “Safely ingesting any amount of these liquids prior to battery removal is better than doing nothing.”

However, authors cautioned against using them if the esophagus has been perforated or the child has sepsis. They also recommended taking into consideration a child’s allergies and age, as children under 1 year typically are not given honey due to a small risk of infant botulism.

Parents can help prevent ingestions by making sure battery compartments are secure and spare batteries are kept out of children's reach.

Resources

- [AAP News story "Concerns mount for catastrophic injury in children who ingest button batteries"](#)
- [Information for parents from HealthyChildren.org on button battery injuries](#)
- [AAP News Parent Plus story "Button batteries can cause injuries, death if swallowed"](#)

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