

# Airway obstructions uncommon but deadly in children

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Cases of foreign bodies obstructing the airways of young children occur infrequently, but the death rate from such events is high, according to a report in the April issue of *Archives of Otolaryngology-Head & Neck Surgery*.

"The aspiration and ingestion of foreign bodies presents a potential lethal threat to infants and [children](#)," the authors write as background information in the article. "Approximately 2.5 million children across the United States are affected by foreign body aspirations each year, with up to 2,000 deaths. Most of these children are younger than 3 years and are at higher risk of inhaling or ingesting foreign bodies owing to their tendency to place objects in their mouths, poor swallowing coordination and immature dentition," or tooth development.

Rahul K. Shah, M.D., and Sukgi S. Choi, M.D., of Children's National Medical Center and the George Washington University School of Medicine, Washington, D.C., and colleagues analyzed data from a national database of children's hospitalizations in 2003 to identify national trends in the management of foreign bodies lodged in the airway and esophagus of pediatric patients.

Of 2,984,129 pediatric patients discharged from 3,438 hospitals that year, 2,771 were admitted for an airway obstruction caused by a foreign body. The average age of these patients was 3.5 years, with 55 percent younger than 2 years. Forty-two percent of the foreign bodies were classified as food.

The patients stayed in the hospital for an average of 6.4 days and underwent an average of 2.4 procedures. Almost three-fourths (71 percent) of children were treated at teaching hospitals. The average charges were \$34,652, with regional variation and a higher average charge at children's vs. non-children's hospitals.

A total of 3.4 percent of these children died in the hospital, with an average stay of 11.7 days and an average of 6.2 procedures. "These patients experienced longer lengths of stay and more procedures, which is intuitive, as their cases were likely more complex. It is plausible to conclude that these cases were the most severe and acute cases. A higher proportion of patients in this population were referred to teaching hospitals, suggesting a possible selection bias of critical cases to these institutions for specialized care," the authors write.

The declining number of these cases may prevent new clinicians from learning to treat them effectively, they note. "Alternative education measures should be considered to train physicians in the management of this infrequent, potentially lethal condition," they write; these could include surgical simulation.

**More information:** Arch Otolaryngol Head Neck Surg. 2010;136[4]:373-379

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