

Statement Submitted for Oral Presentation By:

**Ian Leibowitz M.D.
Assistant Professor of Pediatrics,
Department of Pediatrics
Virginia Commonwealth University
Director, Pediatric Digestive Diseases Center
Inova Fairfax Hospital for Children
Fairfax, Virginia
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Safety Standards for High-Powered Magnet Sets**

Thank you for the opportunity to speak here today. My name is Dr. Ian Leibowitz and I am the Director of the Pediatric Digestive Disease Center at Fairfax Hospital for Children. I am a pediatric gastroenterologist, a member of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) and the chair of the Clinical Care and Quality Committee for NASPGHAN. The focus of my comments is on the management and interventions required for these high powered magnet ingestions.

In June 2012 I and several of my pediatric gastroenterology colleagues met with Commission staff to alert them to the growing incidence of high-powered magnet ingestions. I would like to start my presentation by thanking the Commission for its swift and appropriate response to the growing problem of magnet ingestions. I strongly support the Commission's proposed safety standard for high-powered magnet sets and encourage the Commission to finalize its magnet safety standard as proposed.

One of my first encounters with these magnets was a three-year-old child who presented to the emergency room at Inova Fairfax Hospital for Children with abdominal pain. Her X-ray revealed a string of nine magnets in her mid-abdomen. This patient required an upper endoscopy under anesthesia but only one magnet could be removed so the next day she had to go to the operating room. She underwent an extensive surgery as the magnets had perforated the small and large intestine in several areas with repair of multiple fistulas. She spent nine days in the hospital and has been followed as an out-patient since.

All patients with foreign body ingestions are sent to the emergency room for evaluation of the type and location of the foreign body. Unfortunately with magnets, these ingestions are frequently not recognized immediately, as it may take time for there to be symptoms as opposed to coins which tend to lodge in the esophagus and cause immediate symptoms. In the patient

described above, it was several weeks from the ingestion, witnessed by a sibling, before her symptoms brought her to the emergency room.

The vast majority of these ingestions require medical intervention. A 2012 survey of pediatric gastroenterologists found that in pediatric magnet ingestion cases, 80 percent underwent endoscopy, surgery or both – like my first patient. Twenty-five percent of the patients required both procedures with the concomitant risk of repeated anesthetics. As few as two magnets ingested could result in surgery with most patients needing a laparotomy.

Findings at endoscopy are generally minor though ulceration and inflammation have been noted in as many as a third of the cases. Those patients that require surgery have a much greater risk of morbidity with almost half having perforations or fistulas which are major medical risks. We have also documented cases that have led to extensive loss of intestine and potential lifetime complications. All of these patients are at risk for strictures or narrowing of the intestine and adhesions which are the most common cause of bowel obstructions.

These interventions are markedly different than the management of most foreign body ingestions in children. More than 100,000 foreign body ingestions occur each year, mostly in children. Coins are by far the most common object ingested, but an extensive range of objects including sharp, metallic items like nails and pins are also swallowed. Despite this, only 10-20 percent of these require endoscopic removal and less than 1 percent will need a surgical intervention. Compare these rates of intervention to that for ingestion of high-powered magnets where 80 percent need intervention and 20 percent need significant surgery. Since our initial case, my institution has seen multiple magnet ingestion cases. These have required us to develop a pathway for their management to assure that these children get rapid access to appropriate care. As medical providers, we have had to single out these products for special attention. Unfortunately, they are attractive to little children and easy to ingest which increases the risk of complications as swallowing more than one creates the potential for bowel injury. New products seem to appear continuously using these types of magnets, all of which put our children at risk. I have taken out hundreds of different foreign bodies in my career, but few pose the morbidity risk of these magnets.

I urge the commission to finalize its proposed safety standards for high powered magnet sets and ensure that the magnet set definition capture other types of high-powered magnet products, such as jewelry. The risks to our children of these ingestions is significant and, more importantly, preventable. As a pediatrician, nothing is worse than a child suffering a preventable injury. As long as these sets are available, these injuries will occur.

Thank you.

SOURCES

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