Warning Labels Ineffective at Preventing High-Powered Magnet Ingestions
NASPGHAN Releases New Survey Findings

NEW ORLEANS – Survey findings released today by the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN) provide compelling evidence that the use of warning labels in marketing and packaging of high-powered magnet sets have not been effective in preventing the ingestion of these magnets by infants, children and teenagers.

In the past 10 years, there have been at least 480 cases of high-powered magnet ingestions, with 204 of those cases occurring in the past 12 months, according to the survey, which provides the first epidemiological evidence of the extent of magnet ingestion injuries in U.S. children. Of the reported cases, 80 percent required endoscopic or surgical intervention. The study found that the majority of magnet ingestions (51 percent) occurred in children 1 to 6 years of age, although ingestions also occurred among adolescents and teenagers, who use the magnets to mimic tongue, lip and nose piercings.

NASPGHAN delivered the survey to 1,747 of its members in August 2012 and received reports of magnet ingestions from 354 pediatric gastroenterologists in response. Survey results may not capture the most severe magnet ingestion cases, which may be sent directly to surgery and are not initially seen or managed by a pediatric gastroenterologist.

The magnet ingestion cases reported involve high-powered magnets commonly sold in sets of 100 or more balls that are often spherical in shape and about 3 to 6 millimeters in size. Most of these magnets are made from an alloy of neodymium, iron and boron and exhibit a strong attractive force. If more than one magnet is swallowed, the magnets will attempt to connect with each other inside the body. When this happens the magnets can tear holes in the stomach and bowel and cause severe, life-threatening complications within hours.

Of the children requiring surgical intervention, in almost all cases, those children also required sedation and single or multiple x-rays. Of the cases requiring surgical intervention, 16 percent resulted in bowel resection – or removal of part of the bowel – which can have long-term health implications. Sixty-two percent of the interventions were for repair of perforation (a hole in the wall at any location in the gastrointestinal tract) or fistula (an abnormal connection or passageway between two parts of the gastrointestinal tract).

"Ingesting two or more of these super-strength magnets is unlike swallowing a marble or other small foreign body," said Athos Bousvaros, MD, NASPGHAN president. "Damage from these magnets begins soon after ingestion. When the intestinal wall separates two or more magnets that attract each other, holes in the bowel can occur. Time is of the essence with a high-powered magnet ingestion. Yet, bowel damage can be difficult to diagnose, especially in toddlers who can't convey they have swallowed magnets."
In 2008, high-powered magnet sets were introduced in the consumer market and generally marketed as adult desk toys. The product was initially labeled for use by children 13 years of age and older. Since 2010, high-powered magnet sets have been labeled for consumers 14 years of age and older, and most include warnings to keep the product away from children. The survey results confirm that magnet ingestions and resulting injuries to children continue despite labels and warnings.

“Despite improved warnings, the prevalence of high-powered magnet ingestions is increasing, which tells us that warnings are ineffective at preventing ingestions,” said Robert Noel, MD, a pediatric gastroenterologist and lead author of the study. “The most effective way to prevent ingestions is to ban the sale of high-powered magnet sets.”

The U.S. Consumer Product Safety Commission has proposed a ban on certain high-powered magnet sets, a move strongly supported by NASPGHAN and the American Academy of Pediatrics (AAP).

“Young children naturally put things in their mouths as part of their development, and pediatricians counsel parents to be aware of this risk and keep dangerous items out of their child’s reach. But no parent can be vigilant 100 percent of the time,” said AAP President Thomas McInerny, MD, FAAP. “The Consumer Product Safety Commission’s ban is the decisive action needed to protect young children from potentially severe injuries. For years, the federal government has taken action to educate the public, and to change marketing practices and labeling. Still, these products remain a serious risk to children and teens.”

The survey results will be presented at a news conference at 10:30 a.m. CT Oct. 23, 2012 at the Ernest N. Morial Convention Center in New Orleans during the AAP’s National Conference & Exhibition. Presenters include:

**Mark Gilger, MD** – Professor of Pediatrics; Baylor College of Medicine & Texas Children’s Hospital  
**R. Adam Noel, MD** – Associate Professor of Pediatrics; Louisiana State University School of Medicine  
**Jonathan, Meaghin and Braylon Jordan** – Magnet ingestion patient and family

Reporters wanting to attend the news conference should contact Susan Stevens Martin at ssmartin@aap.org or 847-434-7131 or 504-670-6613 (Oct. 19-23). For reporters calling into the news conference, the call-in number is 877-918-6724. Passcode: AAP Media. To ensure enough lines are available, RSVP to Camille Bonta at 202-320-3658 or ebonta@summithealthconsulting.com.

Reporters can request a written summary of the survey results by contacting Camille Bonta at 202-320-3658.

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Incorporated in 1972, The North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN), with more than 1700 members, is the leading society in the field of pediatric digestive diseases. NASPGHAN’s mission is to advance understanding of normal development, physiology and pathophysiology of diseases of the gastrointestinal tract and liver in children, improve quality of care by fostering the dissemination of this knowledge through scientific meetings, professional and public education, and policy development, and serve as an effective voice for members and the profession. [www.NASPGHAN.org](http://www.NASPGHAN.org).