

To: Physicians, Nurses, and Other Health Care Providers in American Samoa
From: Ron Kirschner, MD
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Subject: High risk foreign bodies: small magnets and water-absorbing balls
Date: 11/26/12

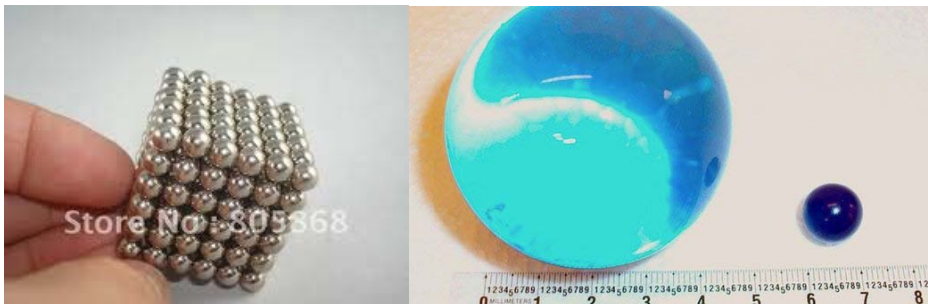
Several months ago, we described the hazards of pediatric button battery ingestions. Magnets are also foreign bodies that require special attention if ingested by a child (1).

1. Small rare earth magnets found in some toys are more powerful than traditional magnets.
2. Magnets in different bowel loops can attract each other, resulting in bowel wall necrosis or obstruction.
3. Single magnets pose a risk if co-ingested with another metallic object.
4. Any child with a history suggestive of magnet ingestion should have an abdominal film.
5. Endoscopic removal is recommended for any magnet in the esophagus, and should be considered if it's in the stomach.
6. A single magnet beyond the stomach in an asymptomatic child can be followed with serial outpatient films to ensure passage.
7. Multiple magnets in the stomach should be removed endoscopically, if possible.
8. Multiple magnets beyond the stomach should have pediatric surgery consultation. Even if asymptomatic, admission and close follow up with serial films is recommended.

Water absorbing polymer balls ("Water Balz") are another high risk foreign body ingestion (2,3).

1. These marble-sized objects are colorful and may resemble candy.
2. The balls are small enough to swallow and pass through the pylorus
3. They then absorb water and can increase in volume up to 400 times leading to intestinal obstruction.
4. Unlike magnets, polymer balls may not be visible on plain film.
5. A history of polymer ball ingestion should prompt consideration of endoscopic removal.
6. If not removable endoscopically, admission for observation and surgical consultation is recommended.

References: 1. Hussain SZ, *J Pediatr Gastroenterol Nutr* 2012; 55: 239.
2. Zamora IJ, *Pediatrics* 2012 Oct; 130(4):e1011-4.
3. *NY Times* 9/17/12.



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