Foreign bodies: Is removal necessary?
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Kids like to swallow things, and almost any object fills the bill. For toddlers, it is part of exploring the environment; for older children and adolescents, it usually is by accident, on a dare, or as part of a neurodevelopmental or psychiatric disorder. Fortunately, most foreign bodies are harmless and pass through the gastrointestinal (GI) tract without problems.

Following are guidelines for pediatricians regarding whom to refer patients to, when to refer and what to do in the interim. These are just “guidelines” as exceptions based on case reports and anecdotal experience can always be found.

Who removes the foreign body will be institution specific, but start with a pediatric gastroenterologist. In some cases, esophageal foreign bodies are removed by pediatric surgeons or otolaryngologists.

Desiccant packages are the single most frequently reported foreign body ingestion, according to the American Association of Poison Control Centers. Toxicity is negligible, and referral for removal is not necessary.

**Esophageal foreign bodies**

Foreign bodies lodged in the esophagus require urgent referral for removal.

On an anteroposterior film, the flat portion of a coin will be seen if the coin is in the esophagus, in deference to the edge if it is in the trachea. For sharp edged objects, especially those that are radiolucent such as bones or toothpicks, computerized tomography may help document the presence of the object. Fish bones may stick in the hypopharynx or proximal esophagus, and care should be taken that these areas are visualized on imaging studies.

Soluble contrast radiography also may be used, but barium contrast studies should be avoided. Even if the foreign body cannot be visualized, a history of ingestion with symptoms of pharyngeal or chest pain and/or drooling warrants referral for endoscopy.

Disc button batteries lodged in the esophagus require urgent referral to prevent damage to the mucosa. Although coins are considered benign, they should not be allowed to remain in the esophagus for more than 24 hours. Patients should be kept NPO. Sedation or intravenous glucagon may result in relaxation of the esophagus and passage of the foreign body into the stomach.

**Gastric foreign bodies**

Coins and other similar rounded radio opaque objects the diameter of a nickel or smaller should pass from the stomach. The rule of thumb is that if it passes the pylorus, it will pass the anus. Quarters and objects of similar size or larger are not likely to pass. A film should be taken three weeks after the ingestion or sooner if the patient develops abdominal pain, nausea or vomiting. If the coin is still within the stomach, the patient should be referred for removal.

Button disc batteries in the stomach are the exception. A film should be taken 72 hours after the ingestion. If the battery still is in the stomach, the patient should be referred for removal at that time.

Surprisingly, nails, pins, paper clips and other sharp objects less than 1½ inches long usually pass from the stomach and all the way through the GI tract without any problems. Their continued presence in the stomach after 72 hours warrants referral for removal. The same is true for cylindrical batteries.

Sharp objects that have moved beyond the pylorus should be followed with serial radiographs every two or three days until they have passed the anus. If during this time the patient develops abdominal pain, fever or vomiting, or on the abdominal films the object fails to move, the patient should be referred to a center urgently.
Patients who have ingested sharp objects longer than 1½ inches, including hat pins, pens and pencils as well as open safety pins, should be referred immediately for urgent removal of the object.

Magnets present an interesting challenge. If the child has swallowed two or more, referral for urgent removal is warranted regardless of the size. In the small intestine, the magnets may stick together causing ischemic necrosis between the interposed loops of bowel.

Children with foreign bodies in the stomach or in the intestine should be kept on a regular diet. The use of prokinetic agents and/or laxatives has been advocated by some, but no controlled studies support their use.

The best treatment for foreign body ingestion is prevention. At all well-child visits, parents should be reminded to keep small objects out of the reach of young children.

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