Pea in the lung? Try jewelry, bones, dentures among inhaled items

By Elizabeth Weise, USA TODAY

Reports of a Massachusetts man with a pea sprouting in his lung didn't faze Ali Musani, an interventional pulmonologist at National Jewish Health in Denver. He has found surprising things in people's lungs — thumbtacks, batteries, beans, even a two-decade-old fishbone.

In the case of the pea, it came to light when Ron Sveden, 75, arrived at Cape Cod Hospital with a collapsed left lung and pneumonia. Biopsies ruled out lung cancer. That's when Jeff Spillane, a critical-care surgeon, ran a bronchoscope down Sveden's airway and discovered the sprout. Sveden apparently had inhaled a pea, which then sprouted in the moist, warm environment. Once removed, Sveden quickly recovered.

"You'd be amazed what you find," Musani says. One of his more memorable removals was a bellybutton ring. Musani met the young woman going into the operating room. She had been coughing and had some pain in her lung for a few days, she told him.

He put her under anesthesia, inserted a rigid tube down her throat, then used a flexible grabber to go down and pull out the ring, which had begun to break up into smaller pieces.

Exactly how and when she inhaled it remains a mystery.

Other times there's no mystery, but the patient just doesn't think it's that urgent. Musani had one patient last month whose X-ray showed an obstruction in the lung that the radiologists thought might be a tumor.

But when Musani talked to the patient, he said he knew what it was. "He said 20 or 21 years ago, he aspirated a fishbone. He coughed his lungs out, but it didn't come out." Musani
Beans a threat to kids

There are multiple dangers to getting something stuck in the lung. The first is simply not being able to breathe. The lung's airways split again and again into ever smaller branches or bronchi, ending in the alveoli, where carbon dioxide and oxygen are exchanged. Block one of those branches and air can't get in.

Beans can be a big threat, especially to children, says James Betts, chief of surgery and director of trauma services at Children's Hospital Oakland.

Just as the pea sprouted, beans swell in the warm, moist environment of the lung. "You have to break up the bean and then take out the pieces," Betts says. "It can swell enough to totally occlude the airway and result in death."

Even if the airway isn't totally blocked, an obstruction can cause the lung to collapse. Or secretions can pile up behind an obstruction. "They basically rot there, so they become a medium for infection," Musani says. That's when pneumonia can set in.

It can sometimes be difficult to know what's in the lung, especially in children, because up to 75% of the items they aspirate don't show up on X-rays. "Things like nuts, little candies, food," Musani says.

That's when CT scans come in. These use X-ray data to give a detailed picture of interior structures. Non-metallic items show up much better in them.

What gets aspirated changes depending on age. Babies put everything in their mouths. In the elderly, partial dentures are a common find in the lungs, Musani says.

"I once took out three teeth attached to a denture," he says. The patient told him, "I haven't been able to find my denture for months now." Musani told her: "Well, I found it!"

By far the most dangerous item for a child to swallow or inhale is a 3-volt lithium battery, the quarter-sized ones used in some toys, cameras and small electronic devices.

If the smaller 1.5-volt batteries, often called "button batteries," are swallowed, they tend to go through the digestive tract without problem, though they still require careful observation. But the larger 3-volt batteries can become stuck in the esophagus or lungs, and "they can very rapidly be deadly," says Andrew Inglis, a pediatric otolaryngologist at Seattle Children's Hospital.

If it's there, it's got to come out!

If parents even suspect that their child has inhaled one of these, they should go to the emergency room immediately, Inglis says. "If we see one, then it's got to come out." The National Capital Poison Control Center has a special 24-hour hotline just for battery ingestion cases at 202-625-3333.

Children are at greatest risk for aspirating items because of their physiology and anatomy.

"When they have things in their mouths and become agitated or excited, they take this deep breath that acts almost as a vacuum cleaner and draws it right into the airway," Betts says.

That's why it's so important that small children not be given nuts, grapes, cherries, popcorn or raw vegetables such as carrots, because they don't know to chew and carefully swallow, he says.

These cases are very common, Betts says.

"I bet someone in the pediatric surgical group takes a coin out every week, if not several."

Mixx

Posted

Updated

To report corrections and clarifications, contact Standards Editor Brent Jones. For publication consideration in the newspaper, send comments to letters@usatoday.com. Include name, phone number, city and state for verification. To view our corrections, go to corrections.usatoday.com