

Tiny lithium battery nearly kills Deer Isle toddler

by **Sharon Kiley Mack**

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DEER ISLE, Maine — Before May 17, Kacen Pedrucci was a normal 15-month-old boy. At his Deer Isle home, he was beginning to talk and was walking around happily, exploring his surroundings and putting things in his mouth as toddlers do. He always had a smile and a sweet disposition.

One of his favorite books was The Lion King, which was a “talking book” — by pushing a button on the side of the page, jungle sounds could be heard.



But for the last three months, Kacen has been at death's door, in and out of doctors' offices, emergency rooms and hospitals, enduring four surgeries after he swallowed a lithium battery, likely from that favorite talking book.

"There were so many days I just sat by his bedside, watching and wondering if he was going to live," his mother Kalashai Porter said Sunday.

Lots of children swallow foreign objects. Pennies, magnets, baby teeth, coins, marbles — all have been known to make it through a child's digestive system. But the button battery Kacen swallowed became stuck in his esophagus and, once wet, began leaking, a dire situation that is becoming increasingly more common as lithium batteries — particularly the button style — have found their way into homes.

Lithium batteries — tinier, stronger and more long-lasting than conventional alkaline batteries — are found in hearing aids, toys, portable electronics such as calculators, computers and digital cameras. They are found in smoke alarms, clocks, musical greeting cards and remote car locks.

"They are everywhere," Porter said.

Kacen's family is sharing his story to warn parents of the potential dangers of ingesting lithium batteries and the need for immediate medical treatment. "Parents and caretakers need to know how dangerous these batteries are," Kacen's great-grandmother, Linda Maker of Lubec, said this weekend.

Maker and Porter said it took medical personnel at two hospitals several days to determine what was wrong with the toddler. Experts say misdiagnosis is common when dealing with toddlers and babies and an unwitnessed ingestion.

Kacen became increasingly ill earlier this year — his fever eventually spiking at 105.3 degrees, screaming through an entire night and becoming so lethargic he couldn't raise his head — and was originally diagnosed on May 17 at the Blue Hill Memorial Hospital emergency room with rotavirus, a common childhood ailment.

Two days later, when the child was not recovering, Porter brought her son to his regular pediatrician where he was given intravenous fluids. He was admitted to Maine Coast Memorial Hospital in Ellsworth and released the next morning.

"All this time, we all believed he had a stomach flu," Maker said. "But he just kept getting progressively worse."

“At first I thought he was teething or had the flu, but it got bad so quickly,” Porter said.

On May 20, Porter returned to Blue Hill Memorial Hospital where she and medical personnel noticed that the boy kept sticking his tongue out and trying to put his fingers down his throat. When Porter refused to leave the hospital until something was done to assist her son, Porter was advised to bring him to Maine Coast Memorial Hospital again.

Once there, as almost a last resort, a chest X-ray was ordered and doctors immediately spotted what was believed to be a coin lodged in Kacen’s esophagus, Porter said. He was immediately transported to Maine Medical Center in Portland where he underwent a two and a half hour surgery.

By the time the battery had been removed, Porter said, Kacen had dropped from 24½ pounds to 19 pounds.

“The doctors said they had never seen anything like this,” Porter said. Battery acid had burned through the esophagus and, even after it was removed, the chemical burning continued. Eventually, as Kacen began to heal, scar tissue began blocking the esophagus. Kacen was put on a feeding tube.

One of the experts that doctors at Maine Medical Center turned to was Dr. Toby Litovitz. “She was absolutely amazing,” Porter said.

According to a 2010 Journal of the American Academy of Pediatrics article, authored by Litovitz, serious and fatal button battery ingestions are occurring with increasing frequency as a result of the emergence of the 20-millimeter lithium coin cell — the button battery — as a popular household battery. Because no one witnesses the majority of these ingestions, Litovitz warned health professionals to consider batteries rather than coins when treating patients.

“Button cell batteries are attractive to small children and often ingested. In the past 20 years, although there has not been an increase in the total number of button cell batteries ingested in a year, researchers have noted a 6.7-fold increase in the risk that an ingestion would result in a moderate or major complication.” Complications can include vocal cord paralysis and death. She stated that the reasons for the increasing frequency of devastating complications are complex, including poor public and physician awareness and that many products using button batteries are not childproofed.

"In fact, 61.8 percent of batteries that were ingested by young children were obtained from products," she wrote.

Doctors are also seeing an increase in ingestions by senior citizens who have mistaken their tiny hearing aid batteries for medication.

Severe tissue damage can be caused by the batteries within two hours of ingestion, Porter said. "The doctors believe the battery had been in Kacen's esophagus for one to two weeks."

"He is so lucky to be alive," Porter added.

According to Dr. Litovitz, 13 children have died after ingesting lithium batteries between 1977 and 2009, with 69 percent of those in the last six years. All fatalities occurred in 11-month-old to 3-year-old children, and only one ingestion was witnessed. The diagnosis was missed by health care providers in seven of the 13 deaths because of nonspecific symptoms of vomiting, fever, lethargy, poor appetite, irritability, cough, wheezing or dehydration.

Meanwhile, Kacen is scheduled for another surgery Tuesday — his fifth, to help dilate his esophagus. He remains on a feeding tube but is now allowed some soft foods during the day, Porter said. He is back up to 26 pounds.

Porter and Kacen's father, Gary Pedrucci, however, will never be the same. "It was the most terrifying experience," Porter said. "We were so close to losing him."

Although the couple has insurance, the additional costs have mounted. They lost their rental apartment on Deer Isle. Their car is about to be repossessed. They have been living at Porter's mother's home in Biddeford for months to be close to Kacen and the hospital.

"We haven't been home since this happened," Porter said.

A fund to offset expenses for the Porter-Pedrucci family has been established. Donations may be sent to Bar Harbor Bank and Trust, 68 Washington Street, Lubec 04652, payable to Linda Maker with Kacen Pedrucci Fund in the comment line.