

Button batteries pose 'deadly' risk to toddlers

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Surgeons are warning of the potentially deadly risk posed to young children by button batteries.

If accidentally swallowed, the small, round batteries can get lodged in the oesophagus and burn a hole through its lining.

London's Great Ormond Street Hospital has seen a big increase in cases in the past year.

Surgeon Kate Cross said: "Button batteries should be treated like poison and kept out of reach of children."

Three-year-old Valeria, from Northern Ireland, has been left with permanent damage to her throat after she swallowed a watch battery in April 2015.

The battery became stuck in her food pipe and she began being sick and refusing food.

It was not until five days later that an X-ray showed she had swallowed a battery, by which time it had burned a hole through her oesophagus and windpipe.



Image caption Valeria with her mum Jelena at Great Ormond Street Hospital

Lasting injuries

Since then she has spent nine months at Great Ormond Street Hospital receiving specialist treatment and still needs to visit every few weeks.

Valeria has undergone dozens of surgical procedures, including having part of her oesophagus removed.

Her mother Jelena said: "Because she now can't eat or drink properly, the doctors have made a hole in her neck and attached a bag so that all her saliva and anything she drinks goes straight in to it.

"Without this, water would go in to her lungs, which would be very dangerous. She also has a special button on her tummy that that liquid food goes through.

"In many ways Valeria is now a normal three-year-old who likes Play-Doh and playing doctors, but she still needs a lot more operations to help her recover."

Doctors are planning to put a metal support, called a stent, into what is left of her oesophagus and they may eventually lift her stomach into her chest to create a new food pipe.

Caustic soda

Great Ormond Street Hospital says a decade ago they rarely treated button battery injuries, but there has been a dramatic rise recently, and now are seeing about one child a month.

Kate Cross, consultant neonatal and paediatric surgeon said: "If the battery gets enveloped in the mucosa of the oesophagus it creates an electrical circuit and the battery starts to function, releasing an alkali which is like caustic soda, which can erode through the wall to the windpipe.

"If the battery is facing a different way it can burn into the aorta, a major blood vessel, and there have been cases in Britain where the child has bled to death.

"That is why it is important to get the message out to parents but also other health professionals because this is a time critical problem."



Image caption Catharina has to be tube fed because she has a hole in her oesophagus and windpipe

Complex surgery

Catharina Santos, aged 18 months, swallowed a button battery that she removed from some bathroom scales at her home in Surrey.

Her mother Jessika said: "I saw Catharina playing with the scales and a moment later realised she had removed the battery cover - I took her to hospital straight away."

Doctors removed the battery about three hours after it had been swallowed, but it had already burned through to her windpipe.

Catharina is being tube fed, and will need complex surgery to try to repair the damage.

Jessika said "My message to other parents is to make sure they keep any of these batteries, or the items which contain them, far away from children."

Children's hospitals in Birmingham, Sheffield and Manchester are also trying to raise awareness of the potential dangers after a steady stream of cases.

Ray Clarke, consultant surgeon at Alder Hey Children's Hospital in Liverpool said: "We have also had a few cases of children putting them into the nose with nasty

consequences, including perforation of the nasal septum (a hole in the partition between the nostrils) or putting them into their ear causing serious inflammation."

Katrina Phillips, Chief Executive of the Child Accident Prevention Trust, said: "Button batteries are everywhere in our homes, in many products that appeal to children.

"But very few parents know about the danger they pose, especially those containing lithium.

"We want to join forces with the battery industry to raise awareness and help keep children safe."

In 2014, engineers in the US produced button batteries with a special coating which conducts electricity only when squeezed, such as when it is in a spring-loaded compartment.

However, the technology has yet to be incorporated by manufacturers.

The British and Irish Portable Battery Association (BIPBA) said it was investigating such designs.

BIPBA said it "takes the safety of consumers very seriously", adding that warning notices are placed on batteries and packaging is child resistant.



Image copyright Great Ormond Street Hospital
Image caption X-ray showing a button battery, smaller than a 10p piece, stuck in Catharina's oesophagus

