HEALTH BASICS

Button batteries

Button batteries are small round batteries that can cause serious tissue injury if swallowed or placed inside the body.

WHAT IT IS
Small, round batteries used in many household products

WHERE IT COMES UP
Swallowing, body insertion, or damaged battery compartments

WHY IT MATTERS
Lodged batteries can quickly burn nearby tissue

WHAT IT IS NOT
Not a disease or diagnosis

WHO TO ASK
Poison control or an emergency department

HOW IT IS CHECKED
X-rays to locate and identify a swallowed battery

Overview

Button batteries are small, flat batteries shaped like buttons or coins. They power items such as remote controls, watches, hearing aids, toys, thermometers, key fobs, and flashing decorations. "Coin battery" often describes the larger versions, but both types can be dangerous inside the body.

A swallowed button battery is a medical emergency. This is especially important when the battery may be stuck in the esophagus, the tube carrying food from the mouth to the stomach. Serious injury can begin before there are clear signs that anything is wrong.

A battery placed in the nose or ear also needs urgent medical attention. Button batteries are not a disease or diagnosis. They are a source of chemical and electrical injury.

How it works

When a button battery touches wet body tissue, an electrical current can form around it. This produces a strongly alkaline substance, similar to caustic cleaning chemicals. It can burn tissue even if the battery does not leak or break open.

The greatest danger is usually a battery lodged in the esophagus. The battery may remain pressed against the same area while the electrical reaction continues. Larger lithium coin batteries are a particular concern, but any button battery should be taken seriously. A battery described as "dead" may still hold enough charge to cause injury.

Batteries can also damage the nose, ear canal, or eardrum. If inhaled into the airway instead of swallowed, they can obstruct breathing or injure the lungs.

Once a battery has passed into the stomach, the immediate risk may be lower. However, its size, location, the person's age, any signs of injury, and whether other objects were swallowed all affect what happens next.

Why it matters for your health

Someone who has swallowed a button battery may initially look and act well. Possible signs of injury, such as drooling, coughing, vomiting, chest discomfort, trouble swallowing, or refusing food, may also resemble other problems. The absence of these signs does not make it safe to wait.

X-rays are used to locate a suspected battery. Images may include the neck, chest, and abdomen. Clinicians may take views from more than one direction because a button battery can resemble a coin. On an X-ray, a battery may show a double rim or a step-like edge.

A battery in the esophagus usually needs emergency removal with an endoscope. This is a flexible viewing tube passed through the mouth while the person is sedated or under anesthesia. Medical assessment should not be delayed while searching for the battery package or waiting for symptoms.

What can go wrong

A lodged battery can cause an esophageal burn , meaning severe damage to the lining and deeper layers of the swallowing tube. Possible complications include:

Some complications can appear after the battery has been removed. In particular, damaged tissue may continue to weaken while it heals. Follow-up after a significant injury is therefore different from simply confirming that the battery is gone.

Trouble breathing, collapse, choking, or bleeding from the mouth requires emergency services. Vomiting blood, coughing blood, black stools, new severe chest or abdominal pain, or rapidly worsening illness after removal also requires emergency reassessment.

- Perforation: a hole through the esophagus
- Stricture: scar tissue that narrows the esophagus
- Fistula: an abnormal connection to the airway or a nearby blood vessel
- Vocal cord injury: damage affecting the voice or breathing
- Airway injury: swelling, blockage, or damage to breathing passages
- Nasal or ear injury: damage to the nasal septum, ear canal, or eardrum

What you can do

If someone may have swallowed a button battery, contact your local poison control service and go to an emergency department immediately. Do this even if the person has no pain and you are not certain a battery was swallowed.

Call emergency services if the person is choking, struggling to breathe, unresponsive, collapsing, or bleeding heavily.

Do not make the person vomit. Do not delay travel to offer food, drink, or a home remedy. Some poison services may recommend honey for certain children over 1 year old after a very recent ingestion. This advice has strict limits, and honey must never be given to a baby under 1 year. Follow the poison service's exact instructions and do not let this delay emergency care.

If possible, bring the battery package or the device it came from. Note when the battery was last seen and when it may have been swallowed. Do not spend time searching if that would delay leaving.

For a battery in the nose or ear, seek urgent medical care now. Do not flush the area with water, use ear or nose drops, or probe with tools. These actions can increase injury or push the battery deeper.

After medical assessment, follow the specific plan you are given. A clinician may recommend repeat imaging or observation if a battery has moved beyond the esophagus. Do not assume it will pass safely without that assessment.

Routine follow-up means attending any arranged imaging, endoscopy, or specialist appointments after the immediate problem has been managed. Seek emergency care instead of waiting for a routine appointment if breathing, swallowing, bleeding, severe pain, fever, or repeated vomiting develops.

Common questions

Is a button battery the same as a coin?

No. They can look similar, especially on an X-ray. Batteries often have a double outline or step at the edge. Clinicians may use X-rays from different directions to tell them apart.

Can I wait to see whether signs of injury appear?

No. Serious esophageal injury can occur before there are obvious signs. A suspected swallowed battery needs immediate assessment.

What if the battery is old or no longer powers a device?

Treat it as dangerous. A used battery may still have enough electrical charge to damage tissue.

What if an adult swallows one?

The same urgent advice applies. Adults with swallowing difficulties, memory problems, intoxication, or altered alertness may be at increased risk of an unnoticed ingestion.

What if the X-ray shows the battery is already in the stomach?

The next step is based on factors such as battery size, age, signs of injury, time since ingestion, and whether a magnet was also swallowed. Follow the emergency clinician's plan rather than trying to judge the risk at home.

Can removal end the risk immediately?

Removal stops further contact with the battery, but an existing burn may continue to cause problems while it heals. Keep all follow-up appointments and use the emergency warning signs provided at discharge.

Sources

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