



Proper disposal, storage, care and handling of your batteries.

Battery Do's and Don'ts

Does storing a battery in the refrigerator help extend its life? Learn some helpful tips on the best way to store, handle and care for your batteries, whether at home or on the road.

Do's

- Do keep batteries, especially small and coin lithium batteries and the devices that use them, out of reach of children. If swallowed, coin lithium battery batteries can get stuck in a child's esophagus where they can cause serious injury in less than two hours.
Do help Energizer drive awareness of the risks associated with ingesting 20-millimeter, coin lithium batteries when swallowed.

IF YOU SUSPECT YOUR CHILD HAS SWALLOWED A COIN LITHIUM BATTERY, TAKE HIM OR HER TO THE EMERGENCY ROOM IMMEDIATELY AND FOLLOW THESE STEPS:

- 1. Tell doctors and nurses it might be a coin lithium battery.**
- 2. Provide the medical team with the identification number from the battery's package if possible.**
- 3. Do not let the child eat or drink until an X-ray determines if a battery is present.**
- 4. Do not induce vomiting.**

- DO read the instructions on your device before installing batteries. Only use the size and type of battery specified in the instructions.
- DO insert the batteries properly. Follow the symbols showing the correct way to position the positive (+) and negative (-) ends of the batteries.
- DO keep battery contact surfaces clean by gently rubbing with a clean pencil eraser or cloth.
- DO immediately remove exhausted batteries from your device and dispose of properly.
- DO remove all batteries from the device at the same time and replace them with new batteries of the same size and type.
- DO preserve battery life by switching off a device and removing the batteries when it's not being used, and is not expected to be used for extended periods of time.
- DO practice proper battery storage by keeping batteries in a cool, dry place at normal room temperature. It's not necessary to store batteries in a refrigerator.

Don'ts

- DON'T dispose of batteries in a fire — they may leak or rupture.
- DON'T disassemble, crush, puncture, or otherwise damage batteries. This can result in leakage or rupture.
- DON'T carry loose batteries in a pocket or purse with metal objects like coins, paper clips, etc. This can short-circuit the battery, leading to high heat or leakage.
- DON'T recharge a battery unless it is specifically marked "rechargeable." Attempting to recharge a non-rechargeable (primary) battery could result in leakage or rupture. Don't use rechargeable alkaline batteries in nickel metal hydride battery chargers.
- DON'T store batteries or battery-powered devices in hot places — elevated temperatures can lead to capacity loss, leakage or rupture.
- DON'T mix old and new batteries, or mix different types or makes of batteries. This can cause leakage or rupture, resulting in personal injury or property damage.
- DON'T give batteries to young children.



How do batteries work?

It's not exactly magic ... but it's close.

Think of a battery as a small power plant that converts a chemical reaction into electrical energy. Various dry cell (or alkaline) batteries can differ in several ways, but they all have the same basic components.

Powering the device

Let's look at how batteries work to generate and send power to your favorite devices.

Chemical Reacts

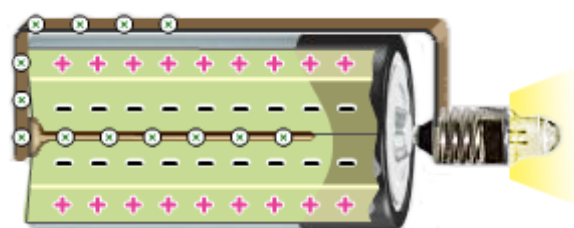
The chemical reaction starts when you insert a battery into a device – and complete the circuit.

Device Responds

The electrolyte oxidizes the anode's powered zinc. The cathode's manganese dioxide/carbon mix reacts with the oxidized zinc to produce electricity.

Voltage Drops

Interaction between the zinc and the electrolyte produces reaction products, which gradually slows the cell's action and lowers its voltage.



Constructing the battery

It's easier to understand how batteries work when you see how they're put together.

Container —It all starts with an empty steel can – the battery container.

Cathode Mix —Finely-ground powders of manganese dioxide and conductors that carry a naturally-occurring electrical charge are molded to the inside wall of the empty container.

Separator —Separator paper is inserted to keep the cathode from touching the anode.

Anode —The anode, which carries a negative electrical charge, plus potassium hydroxide electrolyte are then pumped into each container.

Collector —The brass pin, which forms the negative current collector, is inserted into the battery, which is then sealed and capped.

Flashlight Care

Flashlight Do's and Don'ts

Does storing a battery in the refrigerator help extend its life? Learn some helpful tips on the best way to store, handle and care for your batteries, whether at home or on the road.

- DO store your flashlight in a dry, cool location that's convenient and easy to reach in an emergency or power outage.
- DO replace the batteries in your flashlight or lantern every few months if it isn't used for extended periods of time. This insures that it has fresh, working batteries and prevents battery leakage.
- DO keep flashlights stored in multiple locations in your house and car – in a cabinet or drawer, near all beds, and in your glove compartment – in case of emergencies.
- DO keep a fresh package of Energizer® batteries next to your flashlight. Families often find that batteries haven't been replaced frequently or that children have removed the batteries to use in games. Keeping an unopened package of batteries where you store your flashlight gives you peace of mind that you'll never be left in the dark.

Don'ts

- DON'T store your flashlight in high temperatures. This could accelerate defects in your flashlight, including possible battery leakage.
- DON'T leave your flashlight under the seat in your car, or in direct sunlight.

Battery Recycling

We believe in the power of recycling.

It used to be thought that the notion of recycling was just a trend. Today, the Earth is a smarter, cleaner place, thanks to committed recycling of paper products, plastics, glass and metals. We're all making a real difference to help the planet in a lot of little ways that add up to big impact.



What about recycling batteries?

The recycling of batteries is steadily growing as a consumer habit. More than 5.7 million pounds of batteries were recycled in the first seven months of 2015*, a strong indicator that battery recycling will increase for its 19th year in a row.

***Energizer*® continues to lead the charge.**

Energizer® has a history of industry "firsts", but lately we're most proud of our Energizer Recharge® batteries. By combining innovation and environmental stewardship, our Energizer Recharge® became the first rechargeable to also contain recycled batteries. This innovation represents another step in our journey to bring performance and responsibility to the world.

We're partnering with the best.

Our commitment to recycling includes several strategic partnerships with organizations that encourage, inform and empower consumers to recycle their batteries. We're proud to work alongside Earth 911 and Call2Recycle, both of whom are instrumental in helping us create much-needed awareness. We also work closely with the Corporation for Battery Recycling (CBR), the National Electrical Manufacturers Association (NEMA), and the Portable Rechargeable Battery Association (PRBA).

Coin Lithium Battery Safety



Preventing Coin Lithium Battery Injury

Small electronics like the ones pictured below are convenient and portable, but they run on coin lithium batteries – which can pose a safety risk to young children if swallowed.



A few important safety facts:

- About **3,500** coin lithium battery swallowing cases are reported every year
- Children under **age 4** are at greatest risk
- Coin lithium batteries can get stuck in a child's **esophagus**
- Swallowing can cause serious injury in **less than two hours**
- **Symptoms** of ingestion are coughing, drooling and discomfort
- Storing spare batteries **out of a child's reach** is critically important
- Purchase **child-resistant** battery packaging that requires scissors to open

Energizer's Commitment

Energizer is working to eliminate injuries from coin lithium battery ingestion through:



Device Designs

We actively participate in standardizing warning language and device design to make it harder for children to access battery compartments.



Research & Safety Standards

We continue to collaborate with health and safety professionals to research the chemical reaction when coin lithium batteries are swallowed – and help find a solution.



Child-resistant Packaging

Energizer is the first battery manufacturer to introduce coin lithium battery packaging that voluntarily complies with child-resistant packaging standards and recommendations made by the U.S. Consumer Product Safety Commission (CPSC).



Awareness Efforts

In 2011, we launched the first industry-led effort to raise awareness of the coin lithium battery issue among parents and caregivers through a partnership with Safe Kids Worldwide, the National Capital Poison Center, and other health and safety organizations.

Suspect a swallowing? What to do NOW:

1. Take your child to the Emergency Room **immediately**
2. Tell doctors and nurses it might be a **coin lithium battery** and ask them to call Poison Control for treatment information
3. Provide the **battery size** or **manufacturer part number** from the battery's package, if possible
4. Do NOT let the child eat or drink until an **X-ray** determines if a battery is present
5. Do NOT induce **vomiting**