

All Charged Up

Put the right batteries in those electronic gizmos.

By Laura D'Amelio

The volume button won't work anymore, neither will the channel button. It's one of life's little annoyances: the day the TV remote starts to fade. Time to buy more batteries.

With a growing number of power-glutton gadgets reaching consumers' eager hands every year, we're using more and more batteries. Just take a mental inventory: cellphone, digital camera, laptop computer, music player and, of course, remotes for everything.

Even toothbrushes no longer rely on human power.

Single-use batteries, usually alkaline, come in familiar shapes and sizes: AAA, AA, C, D, 9V and button cells, commonly used in hearing aids. Batteries convert chemical energy into electrical energy when connected in circuit. Rechargeable batteries are able to reverse the chemical reaction within the casing to create energy.

Batteries are a quick purchase at any local store; most people simply reach for the cheapest. Four alkaline AA batteries typically cost between three and five dollars. Four rechargeable AA batteries, with a charger, could set you back more than \$30.

Used properly, however, a rechargeable battery can last more than 400 charges, making it significantly cheaper in the long run, although if the electricity used in the charger comes from non-renewable, polluting sources such as coal, there's still an environmental trade-off.

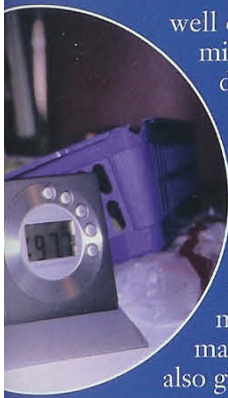
The true cost of any type of these potent packs of power goes beyond their price tag, though. Batteries, rechargeable or otherwise, may contain cadmium, mercury, copper, zinc, lead, manganese, nickel and lithium. The heavy metals that leach from discarded batteries can pollute soils and streams and, in turn, create serious health risks for wildlife and humans. The damaging health effects of lead and mercury, including their impact on children's brain development, are

SMART BATTERY USE

Rechargeable or otherwise, here's how to get the most out of your batteries.

- Remove batteries from devices you won't be using for a while.
- Reuse batteries that appear to be dead. They might be able to power a small clock or flashlight.
- Buy products that don't need many batteries, or any at all.
- Read and follow the instructions for battery use, recharging and disposal.

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well documented. Cadmium and lithium can damage the kidneys or lungs.

If how they end life is potentially dangerous, the environmental impacts associated with mining the metals needed to make batteries should also give thoughtful consumers pause. Mining causes widespread habitat destruction. Non-renewable resources such as gas and oil power the equipment used for extraction and manufacturing.

Canada lags behind the United States, where federal legislation on the removal of mercury and proper disposal of batteries has brought the industry into line. Laws on proper disposal govern the collection, recycling and transportation of batteries by manufacturers and retailers.

Our federal government is nearing the end of a benchmark study of the Canadian battery market, according to Duncan Bury, head of product policy in Environment Canada's National Office for Pollution Prevention. "Right now, batteries are only regulated at the end of their use, (which covers) the transportation and movement of them as waste."

In 1996, the Canadian Household Battery Association (CHBA), made up of major producers includ-



ing Energizer, Maxell, Duracell and others voluntarily discontinued mercury use in their products, except for a minimal amount needed for button batteries.

"It's a reflection of what these companies believe in," says Susan Antler of the CHBA and program director of the Rechargeable Battery Recycling Corporation (RBRC). "Everyone needs to act responsibly. You can be proactive about it, or be forced. Today, less than 500 pounds of mercury is released (by batteries) into the environment every year in Canada."

That means that the common AA batteries forcing you to get up off the couch are no longer considered hazardous by law. While these batteries, unlike their mercury-laced predecessors, can be thrown in the trash, the growing number appearing in landfills continues to create a problem. It's still a good idea to collect them for your municipality's hazardous waste disposal day or take them to a site that handles such waste.

Rechargeable batteries appear to be the easy solution to reducing waste, but they still contain some serious heavy metals including nickel, cadmium and lithium that could pose a considerable threat when discarded. Look for the recycling programs that RBRC has been working on for nearly 10 years. "If it's rechargeable, it's recyclable," says Antler, "and at no cost. Everyone has the ability to recycle these batteries; they just have to choose to." With collection boxes

available in communities and businesses across the country, rechargeable batteries from laptops, cameras or even toys can be diverted from landfills.

Given their long life and ability to be recycled, rechargeable batteries are usually the best choice, but an even better decision is to reconsider the gadgets you buy. Radios and clocks are light energy-eaters while digital cameras and laptops suck up far more power. And children often prefer a truck or doll they power with their own imagination to the ready-made noises and blinking lights of a battery-dependent toy.

Batteries help to make our lives easier, but when crossing that wide expanse between the television and the couch, how much energy do you use to swear that's not true? ♡

Laura D'Amelio is a Toronto-based freelance writer who can often be found scrambling to recharge her cellphone.

THE VERDICT

Avoid buying gadgets that rely on batteries wherever possible. Although common alkaline batteries are considered safe to throw out, conscientious consumers may want to dispose of them through a proper hazardous waste facility. Investing in rechargeable batteries brings significant economic and environmental benefits.

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