

# Importance of Recycling Batteries



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Disposing of batteries in the trash is illegal in many states. Take used batteries to a recycling center.

Batteries power today's necessities --- cellphones, small electronics and laptop computers as well as numerous household devices. These portable, versatile power sources figure significantly in making technology accessible. Americans purchase more than 3 billion dry-cell batteries every year, according to the U.S. Environmental Protection Agency. Tossed in the trash, batteries can harm the environment; when batteries have served their purpose, seek out battery recycling programs.

## Battery Overview

Batteries contain heavy metals -- including mercury, lead, cadmium and nickel -- that react with chemical electrolytes to produce power. Three types of batteries are commonly recycled: lead-acid automotive batteries, found in cars and other vehicles; nonautomotive lead-based batteries used in alarm systems, industrial equipment and emergency lighting; and smaller, dry-cell batteries used in most consumer products. Alkaline, zinc-carbon, button-cell and rechargeable batteries are all in the dry-cell category. (See References 1)

## Health and Environmental Risks

Battery materials pose no threat to human health when in use, but batteries discarded improperly can have dangerous health and environmental consequences because of the heavy metals the batteries contain. About two-thirds of U.S. household waste is either incinerated or placed in a landfill (see References 4). Batteries that end up in a landfill can leach chemicals and heavy metals into soil, groundwater, lakes and streams. When incinerated, batteries release heavy metals into the air; these metals also enter the environment in the ash created during incineration (see References 3). The U.S. Environmental Protection Agency, realizing the dangers batteries pose to human health and the environment, supported passage of the Battery Act in 1996 to promote recycling and proper disposal. The act also led to an industry phase-out of some mercury-content batteries.

## Recycling Laws and Regulations

Many states recognize the dangers from nonrecycled batteries and have enacted legislation to require proper disposal and recycling; 30 states prohibit people from throwing lead batteries into the trash. Other states have laws governing the disposal of rechargeable batteries and cell phones. In addition, federal law mandates recycling of nickel-cadmium and lead batteries. (See References 2)

## Battery Recycling Programs

More than 95 percent of lead-acid car batteries in the U.S. are collected for recycling, often by retailers that sell new batteries (see References 4). Automotive stores and local waste agencies may also accept nonautomotive lead-based batteries for recycling (see References 1). Call2Recycle has an Internet directory, searchable by ZIP code, for consumers to find recycling locations for dry-cell batteries and cell phones. The program's website also offers recycling strategies for retailers, communities, businesses and public agencies.