

# Know Your Batteries



Types	Lead Acid (Pb)	Lithium (Li-ion)	Nickel Cadmium (NiCd) Nickel Metal Hydride (NiMH)	Alkaline
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Used For	Transportation, generators, computers	Watches, cell phones, iPods, computers	Rechargeable appliances, power tools	Radios, flashlights, toys, pagers, cameras
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Toxic Compounds	Sulfur Acid, Lead Oxide, Lead, Electrolyte	Lithium, Electrodes, Electrolyte	Nickel Oxyhydroxide, Cadmium, Potassium/Sodium Hydroxide, Electrolyte	Potassium Hydroxide, Electrolyte
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How to Recycle	Lead Acid and Lithium batteries can all be returned to their place of purchase. <ul style="list-style-type: none"> <li>Always tape the terminals;</li> <li>Store in a cool/dry place;</li> <li>Do not store for long periods of time (risk of acid leakage).</li> </ul>	Contact your local Town Hall for the recycling center near you and for your town's Hazardous Waste Collection Days. <ul style="list-style-type: none"> <li>Store in a cool/dry place;</li> <li>Do not store for long periods of time (risk of acid leakage).</li> </ul>		
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**Health Impacts**

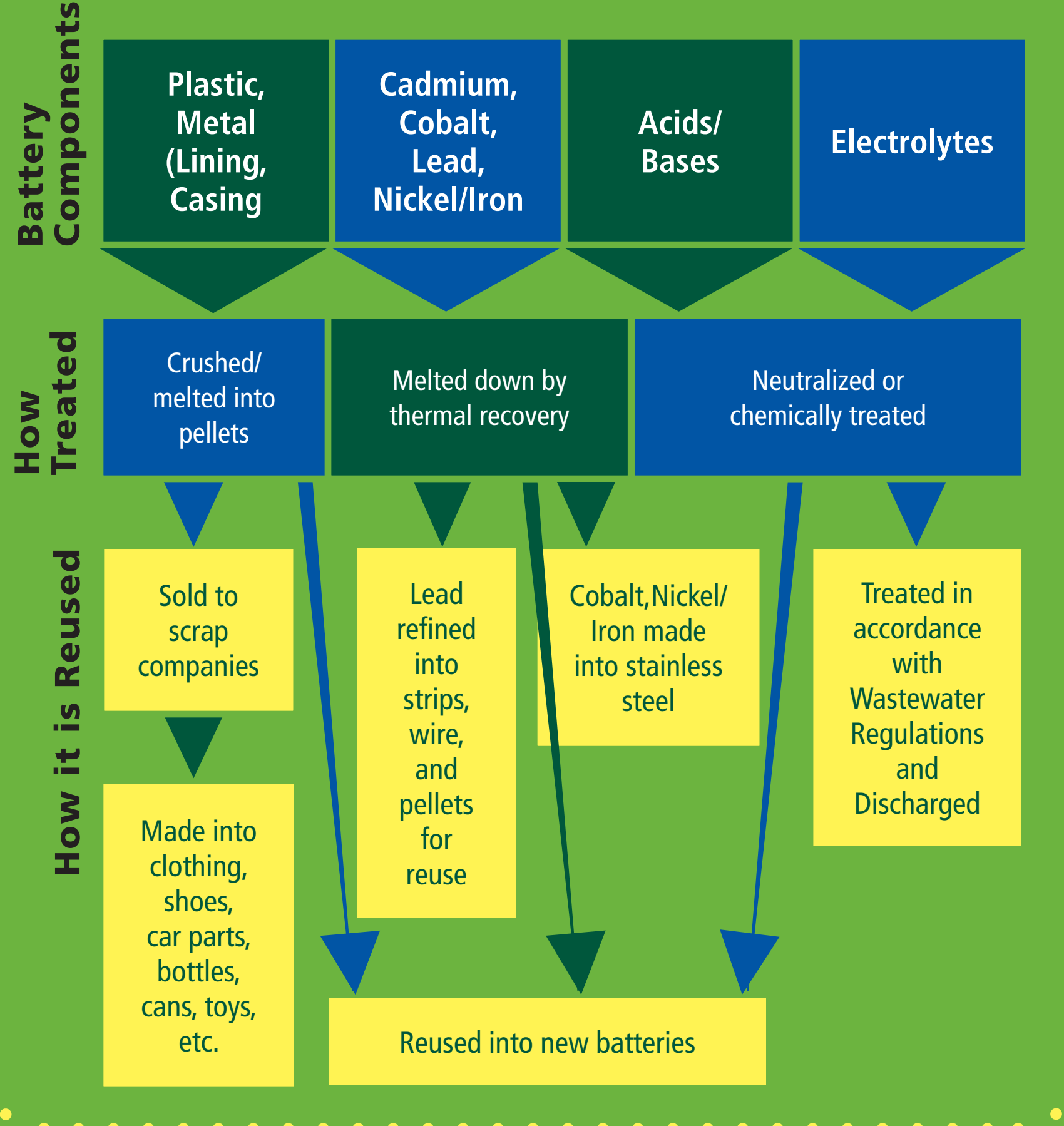
- Sulfuric Acid and Potassium/Sodium Hydroxide both pose corrosive properties that will dissolve skin and cause blindness if there is eye exposure;
- Lead and Cobalt are heavy metals that can cause a buildup of neurotoxins in soft tissues and the bones;
- Cadmium exposure is a risk factor associated with early atherosclerosis and hypertension, which can both lead to cardiovascular disease.

# Life of a Battery



## PROPER DISPOSAL

When properly disposed, batteries are broken down into their individual components and recycled.



## IMPROPER DISPOSAL

Modern Landfill

Landfill Liner

When you throw your batteries in the trash, hazardous waste (Lead, Nickel, Cadmium, Potassium/Sodium Hydroxide, Lithium Electrodes) leach into municipal landfills that were not designed to handle these wastes. The acids in the waste corrode the landfill's lining, allowing toxic chemicals to end up in our groundwater and drinking water.

## BIDMC Statistics

BIDMC will collect and recycle any battery used in the medical center.

- Rolled out extensive battery recycling program across campus in 2009.
- Since the program began, BIDMC has more than doubled the amount of batteries recycled, from 3,700lbs in FY 2008-09 to 8,300lbs in FY 2010-11.
- Any broken or compromised batteries are collected and discarded of properly separate from the normal battery collection method.
- Almost every area has a battery bin to collect used batteries:
  - All types batteries are collected in one container for easy use by all staff;
  - All batteries are then sorted and shipped out according to all Federal and State Regulations.
- EH&S and EVS work as a team to collect batteries from all areas.

### BIDMC's battery recycling program:

Batteries recycled (in lbs)/FY	2008/2009	2009/2010	2010/2011
<b>TOTAL</b>	<b>7709</b>	<b>8218</b>	<b>12,326</b>