Battery Hazards

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BATTERIES RUN OUR WORLD, from flashlights to cell phones, to automobiles. However, they are not without their drawbacks, including pollution and fire/explosion hazards. Educating clients on the proper way to use, store and dispose of batteries is another value-added service of the professional insurance agent.

Each year, Americans throw away more than 3 billion single use batteries. Batteries contain materials that are not only harmful to the environment, but also toxic to humans, including cadmium, copper, lead, lithium, manganese and zinc. Recycling batteries, or using rechargeable ones, helps to reduce the need for landfills, as well as the toxins in the environment. It is estimated that recycling a single lithium-ion battery can prevent the contamination of up to 16,000 gallons of water (*www.e-cycle.com*).

Disposal of batteries may be regulated by the state. For example, in New York it is illegal to dispose of rechargeable batteries in the trash, and retailers are required to accept batteries of the type that they sell, even if not purchased at their store. All service stations or auto supply stores that sell auto batteries are required to take them back. Standard alkaline batteries no longer contain mercury, so they can be put in the regular trash in New Jersey. In California, all batteries, including standard alkaline batteries, are considered hazardous waste, and must be disposed of accordingly, or recycled (*www.calrecycle.ca.gov*). It is important to understand the local regulations regarding battery disposal.

Hazards are not limited to pollution, however. Rechargeable batteries such as lithium-ion batteries represent a unique challenge, especially when overheated or overcharged. Overcharging causes them to lose part of their capacity, and can also lead to overheating. Long term exposure to elevated temperatures can also reduce lithium-ion battery life. Overheating can cause fires. Stanford University recently introduced a "smart" lithium-ion battery that warns the user if it is overheating (*news.stanford.edu*).

There have been a number of cases of fires being started by batteries, including laptops that burst into flame. If microscopic metallic parts contact other parts of the battery, it can cause a short circuit and potential fire. Boeing grounded its Dreamliner fleet after two on board battery packs caught fire. Computer makers have recalled millions of batteries because of these issues (*www.consumeraffairs.com*). In Nevada, a laptop was blamed for a fire that destroyed the truck it was in along with a box of ammunition in the glove compartment.

9 volt batteries have been blamed for a number of fires. It takes only a paper clip or other small piece of metal touching the battery's posts to cause a spark that can burn down a house (*www.kctv5.com*). According to the NFPA, 9 volt batteries should not be stored in drawers with metal objects, such as paper clips. Keep batteries in their original packaging until ready to use. If not packaged, cover the terminals with duct, electrical or masking tape to reduce the chance of fire (*www.nfpa.org*).

Safety precautions include keeping batteries away from water. Water can cause them to rupture, releasing poisonous gases. Never throw batteries in a fire, as they can explode. Do not mix new and old batteries. Store batteries at room temperature in a dry location.

Batteries are an integral part of today's consumer products. Helping clients avoid potential losses due to batteries is another sign of the true insurance professional.

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