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Jump Start Your Car Safely

As the nights grow longer and colder, the likelihood of starting up your car for your morning commute or errands could pose a problem – the battery may be drained, requiring a jump start to get you on your way. Although jump starting a car is a simple enough task, few of us stop to consider the potential danger involved. As a result, the month of October has been designated Auto Battery Safety month.

The first thing to remember about a lead acid car battery is that it contains sulfuric acid, which is highly corrosive. If the battery leaks and touches the skin, it will cause burns. To prevent contact with the sulfuric battery acid, the following steps should be taken:

- -Always protect your eyes with splash-proof safety goggles when working on or near a battery. (Goggles marked ANSI Z-87.1 are recommended.)
- -Wear proper clothing to protect your hands and body.
- -Check the battery for cracks, loose wires, corrosion, or other signs of damage every time you change your oil. Remember to never lean over the battery while inspecting or testing it.
- -Do not turn a battery on its side or upside-down, and always use a battery carrier when moving a battery.

If battery acid gets into the eyes or on the skin, flush the area with water immediately. With regard to a chemical burn to the eye, Prevent Blindness America instructs the individual to

- -Hold the eye open as wide as possible and flush the eye with water or any other drinkable liquid for at least 15 minutes. Do not use an eyecup.
- -If a contact lens is being worn, flush over the contact, even if that means losing the lens.
- -Do not bandage the eye. Seek medical attention immediately.

While eye injuries are often the chief concern (nearly 6000 Americans suffered serious eye injuries in 2003 while working around car batteries), auto batteries pose other dangers, such as explosion. If a spark occurs near the battery, the flammable hydrogen gas it emits can explode. It is important to remember not to smoke when working around a battery and to be careful not to drop metallic objects on the battery.

When jump starting a car, make sure the jumper cables are free from rust and corrosion and no wires are exposed. Do not use electrical tape on exposed wires; replace the cables. Never jump-start a car when the car's fluids are frozen. Connect the positive jumper cable first, and then attach one end of the negative cable to the good battery. Always attach the negative ground of the dead battery LAST, because the final connection will usually spark -- the spark will occur away from the good battery, reducing the risk of an explosion. And be sure the work area is well-ventilated.

In addition to the concerns about explosions, drivers need to be mindful of the potential for shock.

Although most car batteries produce only 12 volts of electricity, hybrid electric vehicles contain a high voltage battery (over 300 volts.) Since this is enough voltage to shock and even kill a person, the high voltage battery should be disconnected before working on a hybrid's electrical system. When disconnecting the high voltage wire (usually colored orange), use insulated gloves and tools. Even when working on a vehicle with a 12 volt batter, it is a good idea to disconnect it when making electrical repairs. (Be sure the engine is not running when disconnecting the battery.)

When buying a new battery, buy the type of battery recommended in your car manual. Check to see that the terminals are sturdy and large enough to fit the clamps of your jumper cable. And dispose of the old battery properly. Never throw it in a garbage barrel or dumpster, and to not leave it along the road or in a parking lot. Take it to a service station or a store where batteries are sold for proper disposal.

Anyone who is uncomfortable with jump starting their car should call a professional. For further information about eye safety and car battery safety, contact Prevent Blindness American at 1-800-331-2020 (www.preventblindness.org) or visit www.autobatteries.com or www.aa1car.com on the internet. Questions about this or other public health concerns should be directed to the Central Connecticut Health District at 860-721-2822 (www.ccthd.org).