

# Health and Safety Regulations of Battery Heaters

When it comes to deciding what supplemental heating source you should use in your home to provide adequate heat during an emergency situation, there are many options out there to choose from. However, there are few options that offer the same versatility as battery powered heaters. Battery powered heaters come in a variety of sizes and configurations designed to provide supplemental heat under a number of different environmental conditions. The key to using battery powered heaters safely is to ensure that you are using the correct heater you're your needs and then operating it in a manner that is consistent with that heater's capabilities in order to prevent overheating. This will ensure that the heater does not cause contact burns or provide an ignition source for a potential fire.

Here are a few things that you need to know about battery heaters to ensure you are safe from potential hazards.

## **Battery Heaters**

Battery powered heaters are external heating devices that operate in much the same way as electric space heaters. However, rather than relying on the use of an external power source, battery powered heaters have the capacity to accept batteries. This means that they can be used anywhere that supplemental heat is necessary, regardless of whether or not there is a viable external power source available. This makes them one of the most versatile supplemental heating devices available on the market today. They are perfect to including in a home or vehicle emergency kit.

Battery powered heaters come in several different sizes with larger units being designed to heat larger areas and smaller devices designed to heat smaller areas. Since these heaters rely solely on the conversion of stored electric current to create heat, they produce 100% clean heat, eliminating the risk of exposure to potentially harmful inhalant pollutants, which is a huge boon over other portable heating sources.

As mentioned previously, battery powered heaters work much like traditional electric space heaters in that they use a battery to create an electric current that flows through a heating element, which then converts that current into usable heat. The internal fan blows heated air into the room while drawing in cooler air from the back to provide heated air into the space while using cooler air to prevent overheating.

### **Advantages of Battery Powered Heaters:**

All battery powered heaters provide clean and efficient heat. This means that they do not burn fuel and don't produce harmful byproducts. Depending on the size of the unit, they can heat areas as small as the cabin of a car or as large as a residential living room. Since there is no open flame, they can be safely used in situations where combustion is a concern such as around oxygen tanks. They also don't emit any inhalant pollution so they are safe to use around individuals with respiratory problems including the elderly and very young children.

Because battery powered heaters don't require the use of any external power source, they can be set up and used under any circumstances. This can be in a home, garage, car, outside or anywhere else. They can provide up to 8 hours of viable heat with one set of batteries.

### **Safety and Health Concerns:**

Using battery powered heaters does have a few safety drawbacks that users should be mindful of. One of the most pressing is ensuring that they are protected from excessive moisture. Because battery powered heaters can be placed in any environment and operate, they are often placed in areas where excessive moisture can be an issue. Using them in bathrooms, garages, and other areas where they can be suddenly immersed in water can not only cause damage to the unit, but also subject the user to electric shock. This can also happen if used outdoors during rain showers. Protecting the heater from exposure to moisture is of paramount importance.

In addition, battery powered heaters are also subject to the same problem of overheating, just like traditional electric powered space heaters. Many of the less-expensive units do not have an internal control to prevent overheating, which may cause burns if they come into contact with your skin. This can be of serious concern when used around small children who may inadvertently touch heater elements that can be extremely hot to the touch and cause serious burns. They can also cause a fire if they come into contact with fabrics located inside the vehicle as well as with clothing. In order to ensure that the risk of burns and fire are minimized, it is important to ensure that the heater is placed in an area where there is no accidental contact with skin or fabric.

To help minimize the risk of burns, overheating, and fire ignition, it is important to choose a heater that is adequately equipped to provide the heat being demanded. They should also be equipped with an automatic shut off feature that turns the heater off in the event it is overturned. An automatic shut off switch will ensure that the heater is turned off if it is tipped over, preventing the heater elements from continuing to heat and potentially cause a fire. In addition, battery powered heaters can be equipped with an internal temperature control that can provide additional insurance that the heater will not overheat, reducing the risk of burns, electrical shock and fire. In most cases, consumers should look for 12V heaters

that are outfitted with external thermostats that allow them to control the level of heat the unit produces.

Last but not least, your battery powered heater should use a fan to disperse heated air into the atmosphere while drawing in cooler air to prevent overheating. Some manufacturers choose to leave out the fan in order to extend the amount of time the heater will run on one set of batteries. However, this can increase the risk of overheating inside the unit, increasing the chances the internal elements of the heater fail and potentially melt, causing burns as well as increasing the risk of fire.

The key to operating a battery powered heater safely is to minimize the risk of overheating the unit. These heaters are not designed to be the primary source of heat in a commuter vehicle or recreational vehicle and should not be used in this manner. By following these safety tips, battery powered heaters can be used to provide supplemental heat on a temporary basis in a safe manner.