

TOPIC: Buying a Space Heater: Consumers Beware!

*****For Immediate Release*****

As we deal with the cold weather, and worry about dramatically higher heating costs, many of us seek ways to reduce our winter heating bill. One such method is to turn down the thermostat and use space heaters to warm the room we are in. Electric space heaters are a popular choice, in part because electricity costs are not predicted to increase as much as other fuels. Another advantage is that local heating in a chilly room is less expensive than turning up the thermostat. Many types of electric space heaters are available. One important reality that buyers should be aware of, however, is heater efficiency.

Unlike many things in life, the process of converting electricity into heat is 100% efficient. This is true for both expensive and inexpensive heaters, and is based on simple laws of physics. While there are different advantages and disadvantages to the various types of heaters, consumers should not be misled by any claims of spectacular performance. An electric space heater operating at 1500 Watts will produce exactly 5119 BTU's (a measure of heat) each hour, rain or shine, no matter what.

According to Joseph Ponessa, Professor Emeritus of Housing at Rutgers Cooperative Extension, buyers of space heaters should beware of excessive claims. Can a space heater produce more heat than other space heaters? Only if it uses more energy. Remember that all electric space heaters, no exceptions, are 100% efficient. Can a space heater cut your energy bills in half? Probably not. The biggest portable space heaters produce about 5000 BTU's per hour. The furnace in an average -sized house produces about 100,000 BTU's per hour. So while a space heater may make one room comfortable, dollar savings will be limited. Beware of shutting off the heat to unused parts of the house. This runs the risk of freezing some pipes. What about a "new scientific breakthrough" or "space-age technology"? No luck here: no matter what, you will always get 3412 BTU's for every kilowatt hour used. No more, no less. If the heater contains a special metal or a special oil to hold the heat, it will be released more slowly, over a longer period of time. This may enhance comfort. But it will be the exact amount of heat that is provided by the electricity consumed. No "special" materials will provide more heat for the electricity consumed.

What kinds of space heaters are there? There are two general classes of space heaters: fuel-burning (kerosene or gas-fired) and electric. Fuel burning heaters may be vented or unvented. While the unvented heaters put more heat into the house, they produce indoor pollution, lots of moisture and a fire risk as well.

Electric heaters are generally less risky, although it is extremely important to follow manufacturer's instructions for all space heaters. Since electric space heaters consume a lot of energy, they should be used only on electrical circuits that do not have other major appliances (refrigerators, toasters, etc.) connected to them. If fuses regularly blow, or circuit breakers trip, try using another outlet. Remember, most of the electric circuits supplying wall outlets in your home are rated at 1800 or 2,400 watts. Therefore, an electric space heater operating at 1500 watts is using more than half the rated capacity of its circuit. Don't use an extension cord with an electric space heater. This may risk a fire.

There are several types of electric space heaters. One type produces warm air. This is known as a convection heater. The other type, a radiant heater, mainly warms nearby objects and may provide more comfort in some cases. Radiant heaters have a quartz tube that gets hot and mainly produces heat rays (infrared energy). Some convection heaters have a metal element that glows red and can be a burn or fire hazard. Other convection heaters look like a radiator or baseboard heater and are filled with oil. These operate at low temperatures and don't get hot enough to cause burns or fire.

There are many different space heaters on the market. Choices depend mainly on convenience, appearance and features, such as low-medium-high settings. For the latest advice on heater selection, consult consumer publications such as Consumer Reports.

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