

## Rhonda Hodgdon

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**From:** Rhonda Hodgdon [rhonda@computerfixlady.com]  
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**Subject:** Computer Tip of the Week #14



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### WEEK #14 (Sorry it's a long one, but a good one!)

#### Is buying a \$5 surge protector sufficient or do I need a battery backup for my computer?

##### Answer:

You should definitely use a surge protector with your computer. It is filled with voltage-sensitive components that a power surge could damage very easily. At the least, this damage will shorten the life of your computer, and it could very easily wipe out all of your saved data or destroy your system. Computers are very expensive items, and the data they hold is often irreplaceable, so it's only good economic sense to invest in a quality surge protector.

Any lines carrying signals into your home can also carry a power surge, due to lightning or a number of other factors. If your computer is connected to the phone lines via a modem, you should get a surge protector that has a phone-line input jack. If you have a coaxial cable line hooked up to expensive equipment, consider a cable surge protector. Surges on these lines can do just as much damage as surges over power lines.

*(The main job of a surge protector system is to protect electronic devices from "surges." The most familiar source is probably lightning. When lightning strikes near a power line, whether it's underground, in a building or running along poles, the electrical energy can boost electrical pressure by millions of volts. This causes an extremely large power surge that will overpower almost any surge protector. In a lightning storm, you should never rely on your surge protector to save your computer. The best protection is to unplug your computer.)*

**All surge protectors are not created equal.** In fact, there is a tremendous range in both performance and price of protection systems.

- At one end, you have your basic \$5 surge protector power strip, which will offer very little protection.
- On the other end you have systems costing hundreds or even thousands of dollars, which will protect against pretty much everything short of lightning striking nearby.

To protect your equipment from surges, you need individual surge protectors for each outlet. These power strips range a great deal in quality and capacity. There are three basic levels of power strip surge protectors:

**Basic power strip** - These are basic extension cord units with five or six outlets. Generally, these models provide only basic protection.

**Better power strip** - For \$15 to \$25 you can get a power strip surge protector with better ratings and extra features.

**Surge station** - These large surge protectors fit under your computer or on the floor. They offer superior voltage protection and advanced line conditioning. Most models also have an input for a phone line, to protect your modem from power surges, and may feature built-in circuit breakers. You can get one of these units for as little \$30, or you can spend upward of \$100 for a more advanced model.

**Uninterruptable Power Supply (UPS)** - Some units combine surge protection with a continuous UPS. The basic design of a continuous UPS is to convert AC power to DC power and store it on a battery. The UPS then converts the battery's DC power back to AC power and runs it to the AC outlets for your electronics. If the power goes out, your computer will continue to run, feeding off the stored battery power. This will give you a few minutes to save your work and shut down your computer. The conversion process also gets rid of most of the line noise coming from the AC outlet. These units tend to cost \$150 or more.

An ordinary UPS WILL give you a high level of protection, but you should still use a surge protector. A UPS will stop most surges from reaching your computer, but it will probably suffer severe damage itself. It's a good idea to use a basic surge protector, if just to save your UPS.

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