



John Bryant  
"Your Computer Doctor"  
(602) 861-1738  
[john@helpmedoc.com](mailto:john@helpmedoc.com)

## BALANCE OF POWER

Protect Your System from All Electrical Threats

**Q: "We've had several storms lately and I'm concerned about electrical damage to my computers. My PCs are all connected to power strips, so I'm safe - right?"**

Electricity is your computers' lifeblood, and it can suffer a severe crisis if that lifeblood courses through it with too much or too little pressure (voltage). Every year, American companies suffer losses of over 80 billion dollars from electrical damage. A \$10 power strip is no safeguard against serious electrical events.

What you need is an **Uninterrupted Power Supply (UPS)**. A UPS provides solid protection against electrical spikes and is equipped with a powerful battery backup to ensure a steady and continued energy flow during brownouts and blackouts.

### Electrical Events – Mighty Blows and Silent Killers

The most obvious and overwhelming electrical catastrophe is lightning. Lightning does not have to strike in your immediate vicinity to cause devastation to your system. When lightning strikes the city's electrical matrix, a crushing jolt of energy is distributed through the grid, resulting in severe electrical spikes and blackouts. This one-two punch to your computer can be caused by lightning that strikes miles away.

While lightning is the most blatant threat to your computer, it is not the sole danger. If a lightning strike is a tidal wave, brownouts and spikes are the undertow. Both can kill you – one is just less conspicuous.

Brownouts are caused by the power drain of heavy equipment, air conditioning units or even office/household appliances. On a citywide level, a power strain on the grid can result in "rolling" brownouts. Evil twin to the brownout is the electrical spike, a sudden increase in electrical line pressure. Like an undertow, energy spikes and brownouts can quietly sweep your innocent PC into an early grave.

### UPS Protection

A good UPS provides your computer with 15-75 minutes of backup power as well as constant voltage regulation. Many models include software which automatically conducts a "graceful" shutdown after power is lost. Computers can be impacted by electrical spikes carried through telephone lines, so most UPS units come equipped with phone line protection.

UPS prices range from \$39.00 to over \$250.00. A good choice is the APC 800VA UPS., which PC World Magazines has chosen as the top UPS for 2005. For home systems, the APC 550 UPS is an affordable alternative.

Do not plug peripherals (scanners and printers) into the "Battery Backup" outlets of your UPS. Only your computer and monitor require battery protection. Most UPS units provide extra outlets for your peripherals. These outlets will protect against surges, but do not add unnecessary strain to the battery.

At the first sign of lightning, shut down your computer and all peripherals. If convenient, it is also a good idea to turn off your UPS and disconnect it from the wall outlet during storms. While UPS backups can protect you from severe electrical surges, a single bolt of lightning can discharge over 30 million volts of electricity in an instant. When it comes to dealing with that level of wrath from Mother Nature - it's better to play it as safe as possible!

***Have a question for your Computer Doctor?***

***Call me at (602) 861-1738 or email your questions to [john@helpmedoc.com](mailto:john@helpmedoc.com)***