When Do Electrical Problems Need Professional Help?

When do you try to solve electrical problems on your own, and when do you call in an expert? This is an important question, because the truth is that electrical fires are dangerous, and a faulty electrical system is often the source of the fire.

How dangerous is electrical fire? According to a March 2008 report issued by the U.S. Fire Administration, the U.S. Department of Homeland Security, and the National Fire Data Center, statistics that were gathered between 2003 and 2005 showed that there are approximately 28,300 electrical fires in homes every year, and that these fires kill 360 people, injure 1000 more, and cause losses in the neighborhood of $995 million. In fact, over the three-year period that was examined, it was determined that an electrical fire was responsible for seven percent of all the fires that occurred in a home.

Of course, starting a fire isn't the only bad thing that can happen. Did you know that the fourth leading cause of death for construction workers is electrocution? Keep in mind that these are the people who are supposed to understand electricity, and yet one construction worker will accidentally be electrocuted every day. If you have a question about what you are doing, default to calling an electrician. It costs a lot less to hire an electrician than to pay medical bills or funeral expenses.

When you are trying to figure out what the cause of a problem might be, start with things that are obvious. For example, make sure the appliance is plugged in. If you don't know whether a problem is being caused by a lamp or by a bulb, plug the lamp in somewhere else and see if it works any better there. Write down what you see so that if you do call in an electrician, you will be able to report any observations and rule out some of the potential problems.

Here's a list of common household electrical problems, along with advice for the best way to handle them.

The Circuit Breaker Trips

Circuit breakers are intended to prevent fires. They trip when they are overloaded or when there is a short circuit. Short circuits occur when the electrical current goes through a shorter path or a different path than the path it was supposed to take and then overheats the wire. Collect some data. Specifically, you want to determine whether the circuit breaker is getting overloaded on a regular basis, or whether you have any cracked or frayed cords.

Electrical cords should not have breaks, brown spots, or fraying. A burning smell might mean a short circuit. If you are using several different electrical appliances at the same time, maybe the combination is just too much for the existing circuit.

You can do several things:

- Check how many appliances you have plugged into one outlet. Maybe you need to move one or more of them to another outlet.
- If you aren't using an appliance, turn it off. There are some things you probably won't ever unplug when you aren't using them, but you might consider buying power strips that will automatically shut down one or more devices that you aren't using.
- Reduce the load on the breaker by not running as many appliances at the same time.
- Replace any cords that have developed a problem. Don't try to lengthen wires.

If you become convinced that your existing circuits are inadequate, a professional can install one or more new ones. In addition, you should always let an electrician repair cords and wires.

The Lights Flicker

A problem with a flickering light might be as simple as a

bulb that hasn't been screwed in all the way, or a bulb that is starting to fail because it is old. You could swap out the old bulb for a new one, and you can also put in a lower-watt version.

Is the problem with the lamp? Try plugging another light into the outlet and see what happens. If you still have a problem, then maybe there's a poor circuit connection somewhere. Next, check is your wiring. Maybe it's a problem with the cord or the outlet. Maybe you've got a lot of flickering lights, and the underlying cause is the main wire connection.

Bright Lights Dim Lights, Popping Bulbs and Dying Appliances

Perhaps you've noticed several things that seem as though they aren't related. Some lights in your home are bright; others are dim. You've had a problem with light bulbs popping instead, or one of your appliances died recently. If you notice any of these problems, it probably has to do with the main neutral connection, and ignoring the problem is a bad idea because the bad connection will destroy your appliances. Call an electrician.

The Outlet Doesn't Work

If an outlet doesn't seem to be working, see whether any other outlets are affected. You might be experiencing a power outage, but you might have a faulty connection that involves more than one outlet, too. It's also possible that the reason an outlet doesn't work is because it wasn't ever wired correctly to the main circuit.

Once you've eliminated the possibility of a power outage, consider whether all or part of the outlet is controlled by a light switch. Sometimes people live in houses for years and don't realize that a specific outlet won't work unless the light switch is on.

If you know what you are doing and you have the right tools to check, you basically need to use a volt meter to check the voltage at the breaker and the outlet. Otherwise, call an electrician.

If only one outlet has a problem and you are comfortable working with electricity, you might be able to fix it. If more outlets are involved, then it is smarter to call an electrician.

The Air in the Dryer Isn't Hot

The dryer might be broken. However, you might also have a poor connection on the receptacle of the dryer or at the circuit breaker. Do you have a fuse box? Maybe a fuse has blown, too.

If you know what you are doing and you have the right tools to check, you basically need to use a volt meter to check the voltage at the breaker and the outlet. Otherwise, call an electrician. To troubleshoot, check the breaker in the power panel first. You want about 110 V on both breaker legs.

The breaker is probably the source of your problem if you have no power there. But suppose both sides of the breaker have power. Next, you want to test the outlet. Check the grounding and the power going in and out of the outlet. If you can see that the incoming lines have power but the outlet isn't working, then the outlet is bad.

If you don't have outlet power, then you are probably dealing with either a bad outlet or a line break. If the outlet seems fine and you have about 220 V, you probably have a broken dryer.

Electrical issues are best handled by a trained and licensed electrician. Please call us at 801-633-7722.