

Older homes – Fire risks explained

Houses over 40 years of age are at significantly higher risk of electrical fire than houses less than 40 years of age. Your house electrical systems may appear fine for decades, with no indication of anything wrong. Then at one moment a spark occurs, tinder and debris ignite and the house is on fire, all because a seemingly innocuous electrical system had one thing installed hazardously. Electrical fires are more frequent in old homes, and the vast majority of electrical fires are the result of “Do it yourself” (DIY work); that being, work done by unqualified people. If any of the electrical installation work in your house has been done by a person other than a “Licensed Electrical Contractor” chances are that DIY work and electrical fire hazards are present. DIY work causes fires and can be prevented.

Does your home have “DIY work”?

Extension cords are often found stapled to the walls. Staples are made of metal. The metal conducts electricity. Eventually the pressure of the staple pushing against the electrical cord will break the insulation and the metal staple will make direct contact with the bare wires. When this occurs there is a “**short-circuit**” across the electrical wires and a fire can result. Christmas lights around the perimeter of the house are often found secured with metal staples. It’s easy to fix. Plastic hangers are available to keep the electrical cords secured safely.

Extension cords may be found under rugs, under doors and running through walls, or even installed outdoors. In these locations the cord insulation can easily break down, exposing live wires, causing sparks and electrical fire.

Recessed lighting may be dangerously installed. These lights generate heat. As a result special care must be taken that the correct lights have been installed for the specific application. There are two types of recessed lights available; those rated for contact with insulation (called “**IC rated**”) and those that are not (called “**non-IC rated**”). If the recessed lights in your home are “non-IC rated” and in contact with house insulation they are not safe. Identification is easy, as IC rated fixtures are usually a solid aluminum silver finish whereas non-IC rated fixtures are usually a solid white finish. There is also an identification plate inside the fixture.

DIY work can be hidden from sight

Outlets and lights in your home can be very dangerous if not installed correctly. Many things can be done wrong that put the house at risk of fire. For example, outlets and lights are often found to be “not grounded”. “**Grounding**” is part of the safety net of the electrical system. Most modern appliances and lights have metal components. If there is a spark inside the appliance or light, grounding prevents the metal from becoming live; preventing electrocution and fire. Modern appliances and lights with metal components require ground protection to be safe. Grounding could be compared to the net below a trapeze artist. They may walk for years with no problems. However, if one day they fall the net is there to protect them.

Electrical boxes are hidden throughout your house, behind the outlets, switches and lights. Sometimes holes in these boxes, called “**knock-outs**”, are left open. While seemingly not of concern, bugs, spiders, and debris can easily get into electrical boxes with openings. Sometimes these boxes are found to be full of debris. Should a spark occur in the electrical box the debris can easily ignite, resulting in a fire. It takes only seconds to clean out the electrical boxes and plug the open holes.

Light fixtures need to be installed with a junction box to protect the ceiling or wall from sparks. Some light fixtures in your home may not have a junction box behind the light fixture. If an electrical connection becomes loose, sparks will occur and fire can easily result.

DIY work may be in the electrical panel

Without question, DIY work in the electrical panel can be most dangerous. Yet it is surprisingly common. Some of the common fire hazards we find in electrical panels:

- Poor electrical connections that can spark
- Circuit breakers oversized
- Circuits not grounded

These hazards can and do cause fires. If hazardous DIY work is removed from your house, your house can be safe for years to come.

Contact PowerCheck for
correct evaluation of your
house electrical safety

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