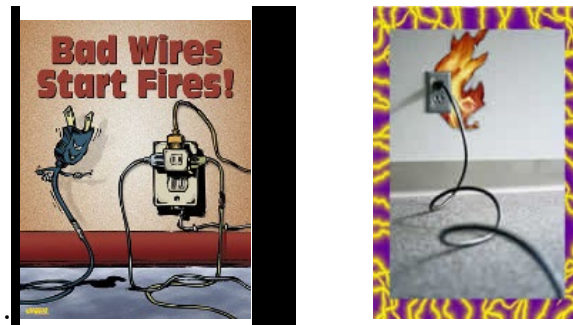
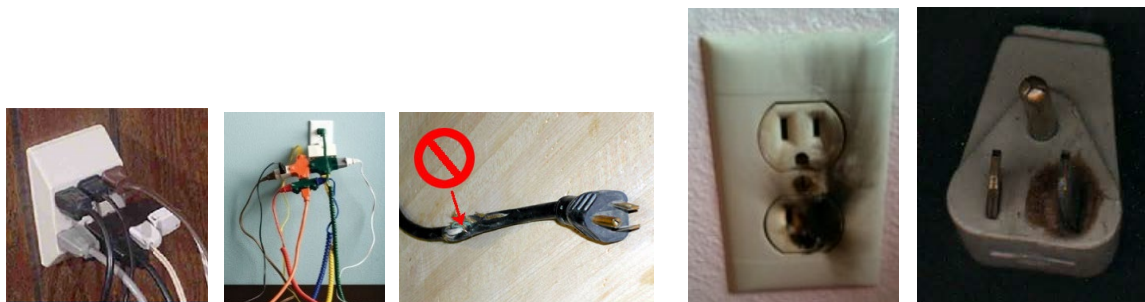


1| Pesach is Coming: Are We Ready?

We clean our homes and rid them of all chometz as we prepare to have a simchas Yom Tov. Have we prepared our homes for a safe environment enabling a simchas hachaim? The same as we look for any chometz, what should I look for, that could hurt my family? In this article we hope to address some of the issues



Do we have anything that looks like these in our homes?



Let us start with the basics of appliances. Are the appliances we use over Shabbos, Yom Tov or Chol Hamoed safe, and are they designed for continuous use, 12, 24, 48 or 72 hours? What are some of these high energy appliances that are run continuously and unattended? Hot Water Urns, Hot Plates [Plata's], Room Air Conditioners, Space Heaters.



Appliances are tested and/or listed by a lab that is part of OSHA's Nationally Recognized Testing Laboratory (NRTL) Program. Some of these NRTL's are UL[®], CSA[®] and ETL[®] Intertek. This goes without stating: the appliance label and instructions manual must be

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approved by these agencies. The appliance is safe to use if it is undamaged and used in accordance with the instruction manual.

Buyer beware: some of the biggest distributors--either online stores or others--sell both listed and unlisted products. Some products may have a European or Chinese marking. Unless these also carry the mark of an OSHA-recognized lab such as UL, these do not meet U.S. standards.

These appliances are considered safe when connected to premise [building] wiring that meets the National Electric Code [NEC]. A little background about the NEC: The first NEC by name was published in 1897. Over the years, the NEC is refined and updated. Currently, the NEC is revised every three years. We are using the locally adopted edition. The purpose of the NEC: "...is the practical safeguarding of persons and property from hazards arising from the use of electricity"

Now that we have an understanding of the NEC, let us look at how to identify these potential home electrical hazards. Generally, the power supply enters the home at the electric meter and is connected to a panel. Depending on when the home was built or updated, this panel may or not be a main breaker [shut off]. There may be fuses, breakers or a combination of both. Breakers or fuses are overcurrent protection [OCP] devices. The OCP protects the house wiring [branch circuit feeds], appliances, equipment and the people operating these appliances and equipment. Are the OCP devices sized properly? Only a qualified electrician should make a determination. What are the potential problems with an oversized OCP device? The premise wiring can burn up and cause the home to burn or the appliance will burn up. A properly installed OCP device should blow or trip if overloaded. Newer OCP equipment with more updated technology will trip with an imbalance between the hot and neutral [GFCI] or detect a potential of arcing [AFCI].

Why is proper grounding important? With a properly grounded circuit, wall boxes, devices [switches / receptacles], and service panel grounds that give the electrical current the easiest path to ground and that reduces the chances of someone getting a shock or getting electrocuted.



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neutral terminal. This may fool the common tester used by many housing inspectors. This wiring configuration can cause electrical shock, or damage equipment that utilizes a ground. The electrical shock potential is due to the fact that the ground prong in the cord is connected to the metal frame of the appliance. With this false ground, the frame becomes connected to the neutral instead, and any connection of the frame to a grounded object will result in current flow. If that connection is a person, there is the possibility of a fatal shock.

What are Arc Faults? An arc fault is an unintentional arcing condition in a circuit. Arcing creates high intensity heating at the point of arc resulting in burning and may over time ignite surrounding material such as wood framing, insulation, or any other combustibles.

If the appliance or equipment connects loosely to the receptacle, the receptacle needs to be replaced by a professional to avoid reverse polarity wiring. If a receptacle is painted over or the face is broken, have the receptacle replaced. Loose fitting connections are potentials fires waiting to happen.



You should also be concerned about trusting an appliance or piece of equipment that uses high energy and is connected to old premise wiring. Examples of high energy use appliances include a toaster, toaster oven, microwave, hot water kettle, hair dryer or space heater. Aside from the electrical safety component, combustibles should be kept away from these appliances when in use and from any plug / receptacle connections.

Other safety concerns are using a light bulb in a clothes closet. This is a potential fire hazard.

There two brands of panel boxes that have a known history of causing fires, Federal Pacific [FPE] and Zinsco.

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This is substantiated by actual statistics and lab studies.

Having a good system ground that is properly installed will help prevent human injury and worse. This should be verified by a qualified electrician.



From the **National Fire Protection Association [NFPA]**

The 2015 U.S. fire loss clock a fire department responded to a fire every 23 seconds. One structure fire was reported every 63 seconds.

- One home structure fire was reported every 86 seconds.

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- One civilian fire injury was reported every 34 minutes.
- One civilian fire death occurred every 2 hours and 40 minutes

From the **Electrical Safety Foundation International (ESFI) 2/4/2015**

Home Electrical Fires - Facts and Statistics

- Home electrical fires account for an estimated 51,000 fires each year, nearly than 500 deaths, more than 1,400 injuries, and \$1.3 billion in property damage.
- Electrical distribution systems are the third leading cause of home structure fires.
- Each year in the United States, arcing faults are responsible for starting more than 28,000 home fires, killing and injuring hundreds of people, and causing over \$700 million in property damage.
- The U.S. Consumer Product Safety Commission (CPSC) reports that electrical receptacles are involved in 5,300 fires every year, causing forty deaths and more than 100 consumer injuries.
- Sixty-five percent of home fire deaths result from fires in homes with no working smoke detectors.

Electrical and Fire Safety Tips

- Have your home electrical system thoroughly inspected by qualified electricians to ensure that all electrical work in the home meets the safety provisions in the NEC.
- Install smoke alarms that signal each other on every level of the home, inside each bedroom, and outside each sleeping area.
- Ask a qualified electrician if your home would benefit from AFCI protection, especially during inspections of older homes or upgrades to electrical systems. These advanced new safety devices recognize dangerous conditions that are not detected by standard breakers.
- Test smoke alarms and AFCIs monthly to ensure that they are working properly.
- Establish an evacuation plan that can be used in case of an emergency, and practice with your family and agree on where to meet outside.
- Use light bulbs that match the recommended wattage on the light fixture.
- In homes with young children, install tamper resistant receptacles to prevent electrical shocks and burns.
- Conduct a basic assessment of your home electrical system, electrical cords, extension cords, power plugs, and outlets.
- Look for telltale signs of electrical problems such as dim and flickering lights, unusual sizzling and buzzing sounds from your electrical system, insulation and circuit breakers that trip repeatedly. Contact a qualified electrician immediately.
- Use extension cords only temporarily, and never with space heaters or air conditioners.

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- Avoid overloading outlets. Consider having additional circuits or outlets added by a qualified electrician as needed
- Keep fabric away from sources of heat. Curtains too close above space heaters have caused fires, just as have garments swinging over stove flames or draperies too near to Shabbos candles.

What should you do if you smell what appears as a burnt smell or a hot plastic smell, an electrical fire? Call 911 and wait outside. The fire department has the experience to locate the source of the smell. They have the equipment that can locate high temperatures concealed behind the walls. And they will secure the home's safety.



Wishing all a **חג כשר ושמח**

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