As we prepare to have a simchas Yom Tov, shouldn't we prepare our homes for safe environments, enabling menuchas hanefesh and simchas Yom Tov?

What is Carbon Monoxide [CO]?

Carbon monoxide (CO) is a poisonous, colorless, odorless, and tasteless gas. CO can come from improper ventilation when cooking, damaged vents, malfunctioning furnaces or heater, cars idling indoors, and generators indoors or close to windows.

How does CO harm you?

Not enough oxygen in the air can be fatal. Carbon monoxide is harmful when breathed because it displaces oxygen in the blood and deprives the heart, brain, and other vital organs of oxygen. Large amounts of CO can overcome you without warning—causing you to lose consciousness and suffocate.

Exposure to carbon monoxide is most commonly accompanied by the following symptoms:

- Headache
- Dizziness
- Nausea
- Flu-like symptoms, Fatigue
- Shortness of Breath on Exertion
- Impaired Judgement

How to Prevent Exposure to Carbon Monoxide:

- Have proper ventilation around any combustion, cooking, or heating, etc.
- Leave the windows open to allow for proper ventilation
- Install CO Detectors on each level of the home
- Install CO Detectors outside the bedroom and sleeping quarters
- Change the CO Detector batteries except 10 year battery, twice a year, before Pesach & Succos or when switching to and from Daylight Savings time unless it has a sealed, permanent battery you can't replace. Read the instructions.

Carbon Monoxide Detectors   ceiling mounted or wall plug-in can be purchased at any hardware store or home improvement store. The CO Detectors are easy to install. New CO Detectors last ten years. Until the last few years, though, CO Detectors from different manufacturers had different life expectancy, generally anywhere from 5 to 10 years. Follow what the packaging or paperwork advises and change the CO Detectors accordingly.

In March, 2017 the National Fire Protection Association [NFPA] published their research on electrical fires.

NFPA RESEARCH

Electrical Fires, 3/17 NFPA Research, Quincy, MA

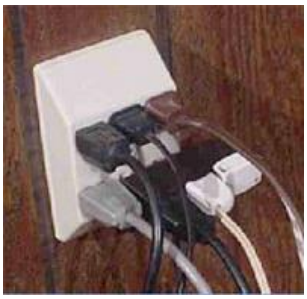
ELECTRICAL FIRES FACT SHEET

U.S. fire departments responded to an estimated annual average of 45,210 reported U.S. home structure fires involving electrical failure or malfunction in 2010-2014. These fires resulted in 420 civilian deaths, 1,370 civilian injuries and $1.4 billion in direct property damage each year. Some type of electrical failure or malfunction also contributed to the ignition of 16,070 *non-home* structure fires during this period, resulting in an estimated annual average of 12 civilian deaths, 210 civilian injuries, and $614 million in direct property damage.

By checking our appliances, equipment and home surroundings we can avoid becoming a part of the research and have menuchas hanefesh & simchas Yom Tov over the Yomim Tovim. A more in-depth inspection of the home's electrical system should be done by a qualified Licensed Electrician and is recommended. But for this article, we will focus on a self-evaluation.

Are adapters like this  being used? These does not necessarily provide the required safety of a connection to ground that is the purpose of the third prong.

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



These are some of the common factors that should be considered before the Yomim Tovim.

SELF HOME INSPECTION

Check your appliance for Certification or listing by a Nationally Recognized Testing Laboratory (NRTL). Some of these NRTL's are UL, CSA and ETL . A more extensive list can be found at https://www.osha.gov/dts/otpca/nrtl/nrtllist.html .

Do you have anything in your home that looks like any one of these pictures?

These are some of the risks in waiting for a full blown fire to happen.

Important Reminder

Call a qualified electrician if you have:

- Frequent problems with blowing fuses or tripping circuit breakers
- A tingling feeling when you touch an electrical appliance
- Discolored outlets or warm switches
- Discolored , Loose or very warm outlets
- A burning or rubbery smell coming from an appliance
- Flickering or dimming lights
- Sparks from an outlet or switch

SAFETY TIPS

- Have all electrical work done by a qualified electrician.

• Major appliances (refrigerators, dryers, washers, stoves, Air Conditioners, etc.) should be plugged directly into a wall receptacle outlet. Extension cords and plug strips should not be used.
• Check electrical cords to make sure they are not running across doorways, under carpets or pinched by furniture. Extension cords are intended for temporary use. Have a qualified electrician add more receptacle outlets so you don't have to use extension cords.

• Use light bulbs that match the recommended wattage on the lamp or fixture. There should be a sticker that indicates the maximum wattage light bulb to use.

• Keep all combustible materials away from any cooking appliances [gas & electric]

• Do not cover the back splash area around the receptacles [outlets] will aluminum foil.

• Be cautious of online purchase, there are products sold without the proper Certification or listing by a Nationally Recognized Testing Laboratory.

Additional Concern:

What is a Ground Fault Circuit Interrupter [GFCI]?  A GFCI device protects us from serious injury from electrical shocks received from faults in the electrical device or appliance we use in our home. The GFCI works by comparing the input current on the hot side to the output current on the neutral side. If there is the slightest imbalance in current, 6 milliamps, then there is electric current leaking out somewhere, possibly through somebody's body. To protect us in this situation, the GFCI trips, and cuts off power at 1/40th of a second, greatly reducing any possible human tissue damage from the errant current. Where GFCI's should be used? At a minimum at any electrical device within 6' of water or appliance used within 6' of water. Or anywhere there is a receptacle installed in an area subject to moisture, as the presence of moisture increases the danger of accidental shock.

Smell a Burning Odor:

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 equipment that can locate high temperatures concealed behind walls and will secure the home' safety.

Fuse Boxes:

Do you have anything in your home that looks like any of the below pictures?




Fuses are an Over Current Protection Device [OCPD]. The OCPD is to protect the branch circuit feeds [wiring] and the appliances connected to them. Oversized fuses can damage the wiring and appliances. A qualified Licensed Electrician can help determine the safety of the fuse box installation.

Circuit Breaker Boxes

Do you have anything in your home that looks like any of the below pictures?




Circuit Breakers are a mechanical Over Current Protection Device [OCPD]. The OCPD is to protect the branch circuit feeds [wiring] and the appliances connected to them. Oversized breakers can damage the wiring and appliances. A qualified Licensed Electrician can help determine the safety of the Circuit Breaker box installation.

Federal Pacific Equipment:

Do you have anything in your home that looks like any of the below pictures?



Federal Pacific Equipment [FPE] is a known fire hazard. This is based on a case history and lab studies. A qualified Licensed Electrician should review the installation with you. For more detailed information, contact the author at info@daves-electric.com

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