HOME ELECTRICAL Safety Checklist

Keeping You and Your Family Safe, Room-by-Room





U.S. Consumer Product Safety Commission 4330 East West Highway Bethesda, MD 20814

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| CPSC recom | imends performing the |
|------------|------------------------|
| HOME ELEC | TRICAL Safety Checklis |
| every 6 mo | nths. |

| DATE COMPLETED: |
|-----------------|
|-----------------|

Next Check-up:

KITCHEN

In All Rooms

Lights

Portable Electric Heating Equipment Three Prong Adapters

Electrical Cords

Electric Outlets and Switches

Outlets with Ground Fault Circuit Interrupters

In the Kitchen

Counter Top Appliances Large Appliances

In All Bathrooms

Ground Fault Circuit Interrupters Small Electrical Appliances

In All Bedrooms

Electric Blankets

In Basement, Garage, and Work Areas

Fuse Box

Circuit Breaker Box

All Electrical Power Tools

Outside of Your Home

Outlets

Electrical Garden Tools

Extension Cords Used Outdoors

Pools and Spas

Every year, electrical products are associated with injuries, deaths,

and fires in homes. Use this checklist to spot possible safety

problems before they occur. This checklist is a room-by-room

guide and allows you to identify and follow up on safety concerns.

The U.S. Consumer Product Safety Commission staff recommends

inspecting electrical products in your home every six months.

Each time you move into a home or change your clocks is the

perfect time to check your smoke alarms and perform this checklist!

www.cpsc.gov

In ALL Rooms



Check each light in the room, including lamps and ceiling fixtures. Is each bulb the appropriate wattage for its fixture?

NO: Replace the bulb with the correct wattage bulb. If you aren't sure, use a bulb 60 watts or less. For unmarked ceiling fixtures with miniature bulbs, use 25 watt bulbs.

A bulb that is a higher wattage than recommended may overheat the light fixture, wiring or nearby combustible materials, leading to a fire.

Check Portable Electric Heating Equipment

Does the heater have a seal of a **nationally-recognized testing laboratory (NRTL)**, such as UL, ETL, or CSA?

NO: Replace heater. Keep heaters far away from all combustibles and avoid touching them while plugged in and hot. Avoid using an uncertified heater.

There is less assurance that safety features are adequate for heaters not tested by a nationally-recognized lab.

☐ Is the heater placed **at least 3 feet** from **combustibles**, such as drapes and newspapers?

NO: Move heater at least 3 feet away from combustibles and check that nothing could fall or lean onto the heater.

Some heaters can produce enough heat to ignite nearby combustible materials.

Is the heater **stable** and placed where it will not tip over?

NO: Place heater on a stable surface and ensure it is out of traffic.

A fire hazard can result if a heater is tipped over. Children, animals, or even blowing drapes can knock a heater over. Although some heaters have tip-over switches, it is better to be sure the heater is stable.

Is the heater in **good**working order? (no odd
smells, sparks or smoke when
operating)

NO: Have the heater repaired or buy a replacement that has a seal (from a NRTL) on it.

Operating problems often indicate an unsafe electrical condition that could cause fire or electrical shock.



Check 3-Prong Adapters

Are properly grounded

3-prong adapters used to
attach power cords with
3-prong plugs to older 2-prong
outlets?

NO: Always connect the grounding wire or metal tab on the adaptor to the center screw on the outlet cover. The grounding feature provided by a 3-prong adapter for a 2-prong outlet is a safety feature designed to lessen the risk of fire or shock in case of an appliance fault. NEVER defeat the adapter's grounding feature or break the ground pin from a 3-prong plug.

There's more for **all rooms** on the next page.

Check Electrical Cords (including those on lamps and extension cords) and Entertainment Equipment (TVs, DVD players, computers, etc.)

| Is any cord frayed, cracked, or otherwise damaged ? | YES: Replace all damaged cords or replace equipment. | Damaged cords may have exposed live wires that can be shock and fire hazards. |
|---|--|--|
| Is any cord placed where it might be stepped on? | YES: Move all cords so they are out of the path of foot traffic. | Cords placed in the path of traffic are tripping hazards. Cords can be damaged when stepped on, creating a fire or shock hazard. |
| ☐ Is any piece of furniture or rug resting on an electrical cord? | YES: Move cords or furniture so cords are not covered. | Heavy weights or traffic can damage cords, crushing insulation or breaking wire strands, creating a fire or shock hazard. |
| Is any cord tightly wrapped around any object? | YES: Unwrap cords. | Wrapped cords trap heat that normally escapes loose cords, which can lead to melting or weakening of insulation. |
| Are cords attached to anything (wall, baseboard, etc) with nails or wire staples ? | YES: Remove any nails and/or staples and replace damaged cords. | Nails and staples can tear or crush the insulation or cut the wires inside, presenting a fire or shock hazard. |
| Are all extensions cords equipped with safety covers on the unused outlets? | NO: Use safety covers that fill the slots of every unused outlet. | Children can be shocked or seriously burned when they play with uncovered outlets. |
| Check the electrical rating on appliances and extension cords. Is any extension cord carrying more that its proper load ? | YES: Replace cord with a higher capacity cord (16 AWG handles 1375 W, use 14 or 12 AWG for heavier loads). | Too much current will cause the wires to get hot. If the cord, plug, or outlet feels warm, it may be overloaded, and can be a fire hazard. |
| Is any extension cord being used on a permanent basis? | YES: Have new outlets installed where needed, or move appliance closer to an outlet. | Extension cords are not as safe as permanent house wiring. Installed wiring can carry more current and is protected from accidental damage that could cause shock or fire. |
| Is all the entertainment equipment placed so that air can freely circulate around it? | NO: Move equipment so it has room to "breathe." Avoid enclosing equipment in a cabinet without proper openings and do not store papers around equipment. | Blocking air flow to equipment can cause overheating and a possible fire hazard. (Refer to the owner's manual for guidance.) |
| Is all the equipment in a dry location, free of any source of water, including rain, leaks, and spills? | NO: Relocate equipment away from water source such as plants and aquariums. | Mixing electricity and water can result in a serious shock or fire hazard. |

Check Electrical Outlets and Switches

| If children are present, do all unused outlets have safety covers? | NO: Purchase safety covers for all unused outlets. | Children can suffer serious shock and burn injuries if they insert objects into outlets. |
|---|--|---|
| ☐ Are all outlets and switches working properly? | NO: Have an electrician check the outlets and switches. | Improperly operating outlets or switches may indicate that an unsafe wiring condition exists. A loose screw holding a wire or a worn out switch can lead to electrical arcing, overheating, or a fire. |
| Are all outlets and switches cool to the touch? | NO: Make sure appliances are not overloading the outlet. Stop using them until an electrician checks the problem. | Unusually warm outlets or switches may indicate an unsafe wiring condition exists, such as a loose electrical connection that can start a fire. (Some dimmer switches may become warm during normal use.) |
| Do all electrical plugs fit snugly into all outlets? | NO: Have the outlet replaced. | Loose-fitting plugs can cause overheating and fires. A loose connection cannot carry much current without getting hot. |
| ☐ Do all outlets have faceplates covering all wiring? | NO: Install faceplates. | Exposed wiring is a shock hazard. Children may stick objects into an electrical outlet that is not covered with a plate. |

Do you **test all** your GFCI outlets

Check Ground Fault Circuit Interrupter (GFCI) Protected Outlets

| regularly? | according to the minstructions. |
|--|--|
| Do you have GFCI outlets in- stalled in your: | If you do not have t |
| ☐ Kitchen | follow this procedu |
| Unfinished Basement | Plug a light into turn it on. |
| ☐ Garage or ☐ Around your laundry/ utility tub or wet bar sink | Press the test be light go out? If GFCI. |

NO: Test every GFCI once a month according to the manufacturer's

the instructions lure:

- o the outlet and
- utton. Did the not, replace the
- 3) Press the reset button. Did the light come back on? If not, replace the GFCI.

GFCIs can prevent electrocutions so make sure they're working. The CPSC recommends using them in kitchens, bathrooms, and other areas where the risk of electric shock is higher.

Consider having GFCIs installed in locations required by the National Electrical Code, such as kitchens, bathrooms, garages, unfinished basements and near laundry tubs or wet bar sinks.

Once you've completed this section for every room, continue on to the next page for specific items to look for in your **kitchen**.

In The Kitchen



Check Counter Top Appliances

| Are all counter top appliances unplugged when not in use? | NO: Unplug when not in use. | Unattended, plugged-in appliances may create an unnecessary risk of fire. |
|---|--|---|
| Are all appliance cords placed so they will not come in contact with a hot surface (e.g., oven, range burner, toaster)? | NO: Relocate cords away from all heat sources. | Cords can melt or burn from excess heat. This can expose wires, which could lead to an electrical shock or fire. |
| Are all appliances located away from the sink ? | NO: Relocate away from the sink area. If you can't relocate them, make sure the appliances are plugged into GFCI-protected outlets. | Mixing electricity and water can result in an electric shock or fire hazard. Counter top appliances can be accidentally knocked into the sink or sprayed with water. Using a GFCI reduces the chance of a serious shock or electrocution. |
| Check Large Appliances | | |



| Have you ever received even a | YES: Do not touch the until it has been checked |
|--|--|
| slight shock (other than one from static electricity) from any appliance? | electrician. Turn the the appliance at the |

the appliance ecked by an power off to

A shock indicates an extremely hazardous wiring condition. There may be an internal electrical short circuit breaker. or ground fault that could seriously injure someone who simply touches the appliance.

 \square Is the top of and area above the cooking range **free of** combustibles (e.g., potholders, **NO:** Remove all possible combustibles.

Using the range area for storage of combustibles may result in fires or burns.

paper, plastic utensils)?

Once you've completed inspecting the kitchen, continue on to the next page for specific items to look for in your bathrooms.

In All Bathrooms



Check Small Electrical Appliances (hairdryers, curling irons, electric razors, etc.)

Are **all** appliances **unplugged** when not in use?

NO: Unplug all small appliances when not in use.

Even when turned off, plugged-in electrical appliances may cause a shock hazard if they fall into water. Sometimes a worn switch may turn on with no one touching it.

Are all appliances in good condition?

That is, are they working the same with no signs of damaged wiring or parts? (smoke, sparks, and noises, etc.)

NO: Discard or have repaired.

Irregular operation is a sign of damage to electrical parts.
Damaged appliances can become a shock or fire hazard.

Are **portable heaters** ever used in the bathroom?

YES: Consider installing a fixed heating fan. Avoid using portable heaters in the bathroom. If you use a portable heater, either plug it into a GFCI outlet or use a heater with a GFCI plug.

Portable heaters can be an electrocution hazard when used in bathrooms. The many grounded surfaces and water contribute to this hazard. A GFCI can help to reduce the risk of serious injury or electrocution.



In All Bedrooms



Check Electric Blankets

☐ Are **all** electric blankets in good condition?

Look for **cracks** or **breaks** in wiring, plugs, and connectors. Also look for dark, charred, or frayed spots on either side of the blanket.

NO: Discard blanket.

Any of these conditions indicate damage and a potential fire hazard.

 \square Is **anything covering** the blanket when in use?

YES: Remove object. Do not allow anything on top of the blanket when it is in use.

When covered by anything, including other blankets or pets, electric blankets may overheat. If uncertain of your blanket instructions, do not put anything, even a light bedspread or blanket on top of an operating electric blanket.

☐ Is the blanket **always** laid out flat?

NO: Unfold the blanket. Never fold electric blankets when in use.

Folded blankets may overheat.

☐ If tucked in, are the **heat** producing wires bent around YES: Untuck the blanket. Never pinch the heat-producing wires. Pinching the wires may cause damage. Damaged wires may create a fire hazard.

the corners?



Once you've completed inspecting all your bedrooms, continue on to the next page for specific items to look for in your basement, garage, and workshops.

In Basement, Garage, and Workshops



Check Fuse Box (No fuse box? Check your Circuit Breaker box.)

☐ Are **fuses** the correct **size** for the circuit?

NO: Install the correct size. If correct size is unknown, have an electrician identify and label the size to be used.

The wrong size fuse can allow too much current to flow and cause the wiring to overheat, creating a fire hazard.



Check Circuit Breaker Box

Do you periodically turn **circuit breakers** off and on?

NO: Turn off the freezer, refrigerator, and air conditioner. Flip each circuit breaker off and on three times. Do this at least once a year.

Circuit breakers must be exercised periodically to make sure they have not become stuck and to keep them *in good working order.*

Appliances with compressor motors can be damaged by repeated power interruptions if you don't turn them off.

☐ If Ground Fault Circuit **Interrupter (GFCI)** breakers are installed, are they tested periodically?

(Note: These are similar to the GFCIs used in outlets.)

NO: Test GFCIs monthly.

To test: Push the test button. The breaker handle should go to the middle or off position.

To reset: Move the breaker handle to the off position and then to the on position.

A defective GFCI circuit breaker should be replaced by a qualified electrician.

GFCIs must be operating properly to protect against electrocution. They can fail without showing any sign of failure, so regular testing may save your life. By installing GFCIs, you are reducing your risk of electric shock.

☐ If Arc Fault Circuit Interrupters (AFCIs) are installed, are they tested periodically?

NO: Test AFCIs monthly.

To test: Follow the directions in the GFCI test above.

A defective AFCI circuit breaker should be replaced by a qualified electrician.

AFCIs are special circuit breakers that detect electrical arcing that may occur if a wire or connection is damaged. Without an AFCI, this kind of arcing could cause unnoticed overheating and start a fire. AFCIs can stop working without showing signs of failure, so regular testing to identify a non-functioning AFCI may save your life.



Check Electrical Power Tools

☐ Are **all** cord connected power tools equipped with 3-prong **plugs** or marked to indicate they are double insulated?

NO: Consider replacing older tools lacking these safety features. At the very least, make sure to plug them into a working GFCI outlet when using them.

These safety features reduce the risk of electric shock and electrocution. Metal-cased electrical tools without proper grounding become more dangerous as old internal insulation wears and cracks. Portable GFCIs are as effective as installed GFCIs.

Once you've completed inspecting all your work areas, continue on to the next page for specific items to look for outside your home.



Outdoors



Check Electrical Outlets

Does **each** outlet have its own weatherproof cover?

NO: Have weatherproof covers installed and keep them closed on unused outlets. If outlets must be used in wet weather, install a "weatherproof while in use" cover.

Moisture can get into outside outlets and cause a malfunction, which can pose a possible shock or fire hazard. Most covers don't keep water out when a cord is plugged into them, because the water drips between the plug and outlet.

Are **all** outlets protected by a **GFCI?**

NO: Have GFCIs installed or plug in a portable GFCI when you use an outdoor outlet. GFCIs are sensitive to moisture and should be protected when used outdoors.

GFCIs protect against electrocution. Many local building codes require installing GFCIs for outside circuits when new homes are built or when existing ones are renovated.



Check Electric Garden Tools (lawn mowers, hedge trimmers, weed trimmers, etc.)

Are **all** power cords in good condition (e.g., no cracks, exposed wires, etc.)?

NO: Have damaged cords replaced by a qualified repair facility.

Damaged cords that have exposed wires are shock and fire hazards, especially outdoors when in contact with moisture and the ground.

Are **tools** in good condition and operating properly? Do they function in a consistent manner and show no signs of damaged wiring or parts?

NO: Discard them, or have the tools repaired by a qualified repair

If a power tool is not operating as you would expect, it is usually a sign of damage. Damaged tools can become a shock or fire hazard when wiring, motors, or other electrical parts begin to wear out or fail.

☐ Are **corded electric power** tools used around ponds or other wet or damp areas?

YES: Avoid using corded tools in damp or wet locations. If a tool gets wet, unplug it before touching it. Let it dry thoroughly. If the tool was immersed have it tested at a qualified repair center before trying to use it again. Or use battery powered tools if possible.

An electric tool in water is a potential electrocution hazard. No home power tools and few submersible pumps are safety-tested for use with people in the water. Even double insulated tools can become dangerous if they get wet. Using GFCI protection can reduce the risk of injury.



There's more for **outside your home** on the next page.

Check Extension Cords Used Outdoors

Are **extension cords** marked specifically for **outdoor use**?

NO: Replace with extension cords marked for outdoor use.

Cords made for indoor use will not withstand the temperature, humidity, and mechanical stresses of outdoor use. Indoor cords are more easily damaged and could become fire or shock hazards when used outdoors.

Are **3-prong extension cords** available **and being used** with the grounded (3-prong) plugs on outdoor products?

NO: Obtain 3-prong extension cords with proper grounding (3-prong plugs and three-slot outlets).

Products with 3-prong plugs are designed to lower the risk of electric shock. Using a 3- prong product with a 2-prong extension cord eliminates the protection and increases the likelihood of electrocution or fire if the tool has an internal electrical fault.

Check Pools and Spas

Is any **electrical equipment** used outdoors or around a swimming pool, spa or hot tub?

YES: Make sure all electrical equipment stays dry. Plug power cords only into working GFCI outlets. Unplug the equipment if it gets wet or immersed in the water before you try to "rescue" it.

Electrical products, even those in plastic or "double insulated" cases, can leak electrical current if they become wet from rain or splashing or have fallen into water. If they are wet, they are a serious shock or electrocution hazard.

Congratulations, you have completed the electrical checklist.

Use this checklist periodically to check your entire home.

Other safety checklists can be found at www.cpsc.gov.

Electrical Safety Publications

All CPSC publications are available to consumers to print for free from their computers. To order hard copies of any of the Neighborhood Safety Library Publications or Technical Reports and Handbooks listed in the general categories, please send an email to *info@cpsc.gov*. Specific electrical safety publications are listed below. Please allow 3-4 weeks for delivery.

| Document Number | Publication | Description | Websites |
|--------------------|---|--------------|--|
| 016 | Extension Cords Fact Sheet | Fact Sheet | www.cpsc.gov/cpscpub/ pubs/16.html |
| 099 | GFCIs Fact Sheet | Fact Sheet | www.cpsc.gov/cpscpub/ pubs/99.html |
| 516 | Repairing Aluminum Wiring | Booklet | www.cpsc.gov/cpscpub/ pubs/516.pdf |
| 518 | Home Wiring Hazards | Booklet | www.cpsc.gov/cpscpub/ pubs/518.pdf |
| 519 | Don't Swim with Shock | Booklet | www.cpsc.gov/cpscpub/ pubs/519.pdf |
| 524 | Electrical Receptacle Outlets | Fact Sheet | www.cpsc.gov/cpscpub/ pubs/524.html |
| 5037 | Newer Hairdryers Prevent Electrocutions | Safety Alert | www.cpsc.gov/cpscpub/ pubs/5037.html |
| 5038 | Use a Ground-Fault Circuit- Interrupter With Electric Heaters in the Bathroom | Safety Alert | www.cpsc.gov/cpscpub/ pubs/5038.html |
| 5039 | Install Ground-Fault Circuit- Interrupter Protection for Pools, Spas and Hot Tubs | Safety Alert | www.cpsc.gov/cpscpub/ pubs/5039.html |
| 5040 | Use a Ground-Fault Circuit- Interrupter With Every Power Tool | Safety Alert | www.cpsc.gov/cpscpub/ pubs/5040.html |
| 5060 | Metal Ladders and Electricity Don't Mix | Safety Alert | www.cpsc.gov/cpscpub/ pubs/5060.pdf |
| 5061 | Electrocution Hazard with Do-It-Yourself Repairs of Microwave Ovens | Safety Alert | www.cpsc.gov/cpscpub/ pubs/5061.html |
| 5133 | Preventing Home Fires: Arc Fault Circuit Interrupters (AFCIs) | Safety Alert | www.cpsc.gov/cpscpub/pubs/ afci.html |
| 5134 | Arc Fault Circuit Interrupters (AFCIs) | Fact Sheet | www.cpsc.gov/cpscpub/pubs/ afcifac8.pdf |

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