Smiley Electric

Licensed electrician · Portland, Oregon · Oregon CCB #227116

FREE HOMEOWNER GUIDE

Burning smell from an outlet? Don't ignore it

What to do right now

Electrical components don't produce burning odors under normal operation. That smell means something is overheating, arcing, or failing inside your wall, and left unaddressed it can lead to a house fire. Don't wait to see if it gets worse. If you see smoke, flames, or the smell is coming from multiple locations, leave the building and call 911 first.

- [ ] Unplug everything connected to that outlet
- [ ] Go to your panel and turn off the breaker controlling that outlet
- [ ] Do not use the outlet again until a licensed electrician has inspected it
- [ ] If the smell is strong, persistent, or accompanied by smoke, sparks, or scorch marks, call a licensed electrician right away

Common causes of a burning smell

A burning odor near an outlet has several possible causes, some more urgent than others. Here is what we typically find when we investigate this in Portland-area homes.

- [ ] Loose wiring behind the outlet, which creates resistance, heat, and eventually arc faults
- [ ] Backstabbed wire connections pushed into spring-loaded holes rather than wrapped around screw terminals
- [ ] An overloaded circuit from too many high-draw devices
- [ ] A worn or damaged receptacle, 20 to 30 years old, whose contacts no longer grip plugs firmly
- [ ] Damaged wiring insulation from rodents, pests, or physical damage, causing conductors to arc
- [ ] A faulty or high-draw appliance with an internal fault

Signs this is an emergency

Some electrical situations can wait for a scheduled appointment. A burning smell is rarely one of them. These symptoms indicate active overheating or arcing, conditions that can ignite a fire inside your walls. Call a licensed electrician the same day, or immediately.

- [ ] The outlet or faceplate feels warm or hot to the touch
- [ ] The outlet cover is blackened, discolored, or has visible scorch marks
- [ ] You see sparks when plugging something in
- [ ] The breaker for that circuit keeps tripping
- [ ] You hear buzzing, crackling, or popping from the outlet or wall

- [ ] The burning smell is present even with nothing plugged in
- [ ] Smoke is visible anywhere near the outlet

Frequently asked questions

Is a burning smell from an outlet dangerous?

Yes, it should be treated as a potential fire hazard until proven otherwise. Burning odors from outlets indicate overheating, arcing, or a wiring fault, and these conditions can ignite combustible material inside your walls. Turn off the breaker for that outlet and call a licensed electrician the same day.

Can I just replace the outlet myself?

Replacing the outlet is only appropriate if the receptacle is the cause, such as worn contacts, a cracked housing, or a loose connection at the terminals. If the smell is coming from wiring behind the outlet, an overloaded circuit, or damaged insulation, swapping the outlet won't fix the problem. A licensed electrician can determine which it is.

What does an electrical burning smell actually smell like?

Burning electrical insulation typically smells like burning plastic, rubber, or a sharp chemical odor, different from wood smoke or food burning. Some people describe it as a hot, acrid smell. If you're unsure what you're smelling, err on the side of caution and treat it as an electrical issue until ruled out.

My outlet doesn't smell anymore; is it safe to use?

Not necessarily. The smell may have stopped because the overheating paused, not because the problem resolved. Intermittent burning smells are still a warning sign. Have the outlet inspected before using it again, especially if it was accompanied by any of the emergency signs above.

Sources

1. Electrical Safety (safety tip sheet), National Fire Protection Association (NFPA). https://www.nfpa.org/-/media/project/storefront/catalog/files/safety-tip-sheets/electricalsafetytips.pdf
2. Q & A: Arc Fault Circuit Interrupters, Electrical Safety Foundation International (ESFI). https://www.esfi.org/q-a-arc-fault-circuit-interrupters/

> **Need a licensed electrician in the Portland area?**
> Call Smiley Electric at (503) 484-7556 (Mon–Sat, 7am–5pm) or visit smileyelectric.net/contact. For sparks, smoke, a burning smell or a hot panel, turn off the power if it is safe and call right away.

Reviewed by Joshua Smiley, owner & master electrician, Smiley Electric. Last reviewed November 13, 2026. Online version: smileyelectric.net/help/burning-smell-from-outlet/. General information, not a substitute for an on-site inspection.

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