FREE HOMEOWNER GUIDE

Light bulbs keep burning out? One fixture or the whole house

The answer, first

The first question is where. If bulbs keep dying in one fixture, the cause is at that fixture: too much heat, the wrong bulb, a worn socket, vibration, or a dimmer the bulb does not get along with. Most of those you can sort out yourself.

If bulbs are burning out early all over the house, the cause is the power supplying them. That deserves a prompt look, because the same condition that kills bulbs can damage appliances and electronics.

One fixture: heat and the wrong bulb

Heat is what shortens bulb life, and that includes LEDs. An LED bulb has electronics in its base, and they cook in a fixture that traps heat: an enclosed glass dome, a tight recessed can, a sealed outdoor lantern. For those, the bulb has to be marked as suitable for enclosed fixtures.

Every fixture also has a label, usually inside the socket or on the fixture body, that gives the maximum wattage. Going over it overheats the socket and the wiring above it, not just the bulb.

- [ ] Read the wattage label in the socket and stay at or under it
- [ ] Use bulbs marked for enclosed fixtures in domes, cans, and sealed lanterns
- [ ] Use bulbs marked for damp or wet locations in bathrooms and outdoors
- [ ] On a dimmer, use bulbs marked dimmable
- [ ] Buy bulbs that carry a testing lab mark, such as UL or ETL

One fixture: the socket and loose connections

Look at the base of a dead bulb. A dark, pitted, or scorched spot on the bottom contact or the threads means the bulb was not making solid contact and was arcing in the socket. The usual reason is the small brass tab at the bottom of the socket, which gets flattened over the years by bulbs screwed in too tight. A worn or heat-damaged socket does the same. A loose wire in the fixture causes it from the other side, and usually shows up as flickering before the bulb dies.

Turn the switch off before changing a bulb, and screw the new one in until it is snug, not tight. Do not reach into a socket to bend the tab back unless the breaker is off, because the wall switch alone does not guarantee the socket is dead. If the socket is scorched or cracked, or bulbs keep arcing in it, the socket or the fixture needs replacing.

One fixture: vibration, dimmers, and recessed cans

Vibration breaks the filament in an incandescent bulb. The usual places are a ceiling fan light, the garage door opener, a fixture under a floor that gets heavy foot traffic, and a light beside a door that slams. LED bulbs handle vibration far better.

An older dimmer paired with LED bulbs causes flicker, hum, and early failures. Our page on an outlet or switch that buzzes explains the dimmer side. If a recessed light turns itself off and comes back on a few minutes later, that is its thermal protector, not the bulb. The bulb is too hot for the can, or insulation is packed around a can that is not rated for it.

All over the house: a voltage problem

Bulbs are designed for standard household voltage. When the voltage runs high, they burn hotter and brighter and fail early. The signs are bulbs failing in several rooms, lights that seem unusually bright, or lights that brighten in one room while they dim in another when a large appliance starts.

That last pattern points to a loose neutral connection in the panel or at the service, and it is urgent, because it sends too much voltage to part of the house. Turn off major appliances and sensitive electronics and call. Our page on half the house losing power explains the loose neutral, and our post on lights dimming when the heat starts covers the milder version. The cause can also be on the utility's side, and measuring the voltage at the panel tells us which.

When to stop and call

One fixture that eats bulbs is a nuisance you can usually solve with the right bulb. These are different.

- ☐ Bulbs burn out early in several rooms
- ☐ Lights get brighter when an appliance starts
- ☐ A socket is scorched, melted, or cracked
- ☐ The fixture or its switch is hot, buzzing, or smells burnt
- ☐ Bulbs pop and trip the breaker more than once
- ☐ A recessed light keeps shutting itself off

What an electrician does to find and fix it

For a whole-house problem we measure the voltage at the panel and at the fixtures with loads running, and check the neutral and service connections. If the voltage problem is on the utility side, we tell you so you can have PGE or Pacific Power correct it.

For one fixture we open it up and look at the socket, the connections, and the wire insulation above it. In older Portland homes, the wiring over a ceiling fixture that ran hot bulbs for decades is often brittle, and that is worth knowing before it fails. The repair may be a new socket, a new fixture, or an LED-rated dimmer, handled as electrical repair. If you would like to stop changing bulbs altogether, see our LED lighting page.

Frequently asked questions

Why do my light bulbs keep burning out in the same fixture?

Something at that fixture is the cause. The most common are heat trapped in an enclosed fixture, a bulb over the fixture's wattage rating, a worn socket that lets the bulb arc, vibration, or an old dimmer that does not suit LED bulbs. Check the base of a dead bulb for dark or pitted marks, which point to the socket.

Why do my LED bulbs burn out so fast?

Usually heat. The electronics in the base of an LED bulb fail early in enclosed fixtures and tight recessed cans unless the bulb is rated for them. An older dimmer made for incandescent bulbs can also shorten LED life. If LEDs are failing in many rooms at once, have the voltage checked.

Can bad wiring cause light bulbs to burn out?

Yes, in two ways. A loose connection at the socket or in the fixture makes the bulb arc and fail early in that one fixture. A loose neutral connection at the panel or the service can raise the voltage on part of the house, which burns out bulbs in many rooms and can damage electronics. The second one needs an electrician promptly.

Is it dangerous if light bulbs keep burning out?

In a single fixture it is mostly a nuisance, unless the socket is scorched, the fixture runs hot, or a bulb above the wattage rating is overheating it. Across the whole house it can signal a voltage problem that puts appliances at risk. Bulbs failing in several rooms, especially with lights that look too bright, is a reason to call.

Does screwing a bulb in too tight cause problems?

It can. Overtightening flattens the small brass tab at the bottom of the socket. After that, bulbs do not make firm contact, and the weak contact arcs and shortens bulb life. Screw bulbs in until they are snug and stop.

Sources

1. Home Electrical Safety Checklist (Publication 513), U.S. Consumer Product Safety Commission. https://www.cpsc.gov/s3fs-public/513.pdf
2. Electrical Safety: Checklist, National Fire Protection Association (NFPA). https://content.nfpa.org/-/media/project/storefront/catalog/files/home-fire-safety/electrical/electrical_safety_checklist.pdf
3. Appliance and Electrical Fire Safety, U.S. Fire Administration. https://www.usfa.fema.gov/prevention/home-fires/prevent-fires/appliance-and-electrical/

> **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/light-bulbs-keep-burning-out/. General information, not a substitute for an on-site inspection.

Cite this page: Smiley Electric. “Light bulbs keep burning out? One fixture or the whole house.” smileyelectric.net/help/light-bulbs-keep-burning-out/. Last reviewed November 13, 2026. You are welcome to quote, print or share this page with credit to Smiley Electric and a link to smileyelectric.net/help/light-bulbs-keep-burning-out/.