

NFPA Fact Sheets

Smoke Alarms

Smoke alarm technology has been around since the 1960s. But the single-station, battery-powered smoke alarm we know today became available to consumers in the 1970s. NFPA estimates that 94% of U.S. homes have at least one smoke alarm, and most states have laws requiring them in residential dwellings.

Facts & Figures*

- 15 of every 16 homes (94%) in the U.S. have at least one smoke alarm.
- One-half of home fire deaths occur in the 6% of homes with no smoke alarms.
- Homes with smoke alarms (whether or not they are operational) typically have a death rate that is 40-50% less than the rate for homes without alarms.
- In three of every 10 reported fires in homes equipped with smoke alarms, the devices did not work. Households with non-working smoke alarms now outnumber those with no smoke alarms.
- Why do smoke alarms fail? Most often because of missing, dead or disconnected batteries. (*From NFPA's "[U.S. Experience with Smoke Alarms and Other Fire Alarms](#)")

Safety Tips:

- While smoke alarms alert people to fires, families still need to develop and practice home fire escape plans so that they can get out quickly.
- Install at least one smoke alarm on every floor of your home (including the basement) and outside each sleeping area. If you sleep with the door closed, NFPA recommends installing smoke alarms inside the room. In new homes, smoke alarms are required in all sleeping rooms, according to the National Fire Alarm Code.
- Because smoke rises, alarms should be mounted high on walls or ceilings. Wall-mounted alarms should be positioned 4-12 inches from the ceiling; ceiling-mounted alarms should be positioned 4 inches away from the nearest wall. On vaulted ceilings, be sure to mount the alarm at the highest point of the ceiling.
- Smoke alarms should not be installed near a window, door or forced-air register where drafts could interfere with their operation.
- NFPA recommends that people with hearing impairments install smoke alarms with louder alarm signals and/or strobe lights to alert them to a fire.
- Be sure that the smoke alarm you buy carries the label of an independent testing lab. For a list of manufacturers that distribute smoke alarms for the hearing impaired, please call NFPA's Center for High-Risk Outreach at +1 617 984-7826.
- Alarms that are hard-wired to the home's electrical system should be installed by a qualified electrician.



Smoke alarm maintenance

- Test smoke alarms at least once a month, in accordance with NFPA 72, National Fire Alarm Code®, by using the alarm's "test button" or an approved smoke substitute, and clean the units in accordance with the manufacturer's instructions.
- Install new batteries in all smoke alarms at least once a year, for example, on the day you change your clocks or when the alarm chirps (warning that the battery is dying).
- Replace all smoke alarm batteries immediately upon moving into a new home.
- Keep batteries in smoke alarms; do not borrow them for other purposes. Nuisance activations can be addressed by moving an alarm farther away from kitchen smoke or bathroom steam and by more frequent cleaning. If the problem persists, replace the alarm.
- Replace smoke alarms every 10 years.

NFPA does not test, label or approve any products.

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