

# Smoke Alarm and Carbon Monoxide Alarm Requirements

Find out where smoke alarms and carbon monoxide alarms need to be installed in homes in the City of Portland.

The City of Portland requires that homes have working smoke alarms.

## Where to put smoke alarms

1. In each sleeping room
2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each story including basements, but not including crawl spaces and uninhabitable attics. In split level homes (with no door between levels), a smoke alarm on the upper level will work for the next lower level.
4. Install smoke alarms at least 3 feet away from the door (or opening) of a bathroom with a bathtub or shower. Unless this prevents placement of a smoke alarm.

When the City requires more than one smoke alarm within a home, link the alarms. When one alarm goes off, it must activate all the alarms in the home. This doesn't apply to legally existing homes unless work requiring a structural permit is taking place. This information is in [section R314 of the Oregon Residential Specialty Code](#).

## Requirements for smoke alarms and smoke detectors

1. Don't use smoke alarms and smoke detectors in rooms where conditions are not within manufacturer guidelines. This includes humidity and temperature.
2. Don't put smoke alarms and smoke detectors in unfinished attics, garages or other spaces where temperatures can fall below 4°C (40°F) or exceed 38°C (100°F).
3. Mount smoke alarms and smoke detectors on an inside wall if the place where they go could get a lot warmer or cooler than the room. For example, a poorly insulated ceiling below an unfinished attic or an exterior wall.
4. Smoke alarms and smoke detectors installed within a 6.1-m (20-ft) level path of a cooking appliance have special guidelines. Equip them with an alarm-silencing means or the photoelectric type, but no closer than 10 feet.
5. Don't install smoke alarms and smoke detectors within a 914-mm (36-in.) level path from a bathroom containing a shower or tub.
6. Don't install smoke alarms and smoke detectors within a 914-mm (36-in.) level path from the supply registers or return air opening of a forced air heating or cooling system. Install them outside of the direct airflow from those openings.
7. Don't install smoke alarms and smoke detectors within a 914-mm (36-in.) level path from the tip of the blade of a ceiling-suspended (paddle) fan.

8. If stairs lead to other occupied levels, place smoke alarms or smoke detectors so that smoke rising in the stairway reaches the alarm or detector . They shouldn't be blocked by a door or obstruction.
9. For stairways leading up from a basement, place smoke alarms or smoke detectors on the basement ceiling, near the entry to the stairs.
10. Install smoke alarms or smoke detectors in each sleeping room right next to all sleeping areas.
11. Install all smoke alarms according to the manufacturer's recommendations.

## **National Smoke Alarm Code**

- The National Fire Protection Assn. Article 72 (the National Smoke Alarm Code) states that smoke alarms shall not be in service after 10 years. [ref: NFPA 72 – 11.8.1.4 (5)(b) – Smoke alarms installed in one-and two-family dwellings shall not remain in service longer than 10 years from the date of manufacture.]
- Replace smoke alarms every 7-8 years as the sensor weakens. This recommendation is supported by manufacturers and the U.S. Consumer Product Safety Commission.

## **Requirements for carbon monoxide alarms**

Place carbon monoxide alarms in each bedroom or within 15 feet outside of each bedroom door. Bedrooms on separate floor levels in a home with two or more stories should use separate carbon monoxide alarms for each story.

## **Contact**

### **Residential Inspections**

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