

ARE STILL STANDING HOMES SAFE?

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Many homes survived the fires in Altadena and Palisades in January 2025 with little to no burn damage. However, dense smoke and ash from the fires penetrated homes through a variety of places, including HVAC systems, open windows, and even walls. When the smoke cleared, toxins and residue were left behind.

Unlike forest fires, wildfires that take place in the “wildland-urban interface” (WUI) create smoke that contains toxic chemicals due to the types of fuel that are burned: cars, trucks, batteries, industrial sites, homes painted with lead paint, and other structures.

Research conducted by the LA Fire HEALTH Study in the weeks and months after the fires found that the air quality inside of these homes was often worse than outside:

- Fine particulate pollution (PM_{2.5} and PM₁₀) became trapped inside many homes, and could be recirculated by cleaning, HVAC systems, and other activities inside the home.¹
- Volatile organic compounds (VOCs) were absorbed into soft materials (drywall, furniture, clothes, blankets, curtains, etc.) and then continued to “off-gas” in the weeks after the fires.^{2,3}
- Traces of carcinogenic toxins including benzene, hexene, and furans were also found in the air inside homes in the weeks after the fires.^{2,3}
- Debris removal efforts in the months after the fire also likely contributed to more pollutants penetrating the interior of still standing homes located in areas with significant damage.⁵

Figure 1: Indoor/outdoor ratios of 24 VOCs in 50 homes across LA County within two months after the fires^{2,3}

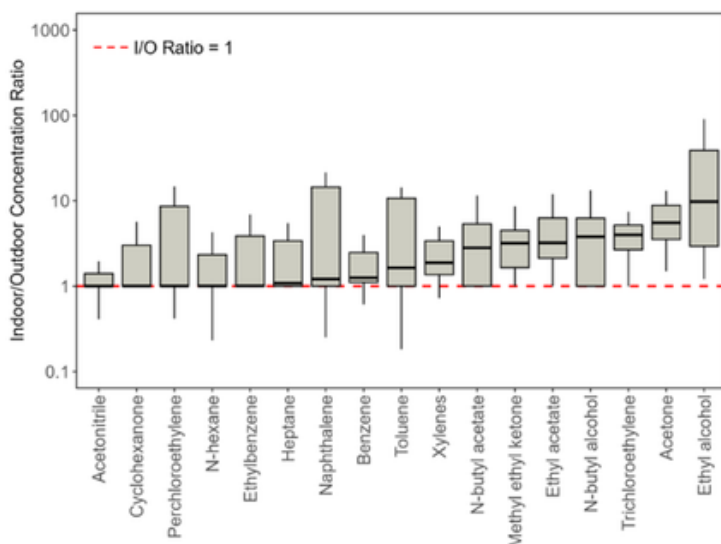
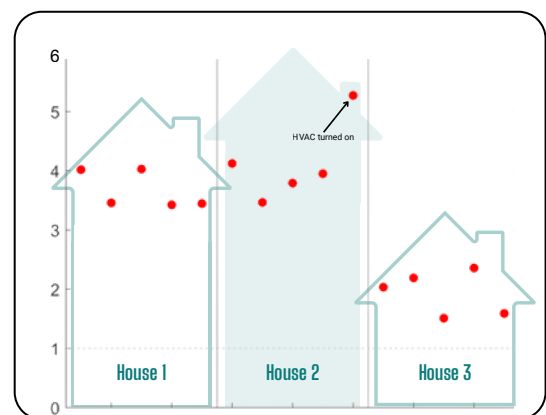


Figure 2: Indoor/outdoor ratio of PM levels in 3 homes located in burn zones¹



House 1 was located in the burn zone but had no damage; **House 2** was located in the burn zone and had minor damage; and **House 3** was outside the burn zone and had no damage.

REMEDICATION & TESTING

Professional remediation remains the gold standard in removing pollutants from inside homes after a fire where smoke has penetrated interior surfaces. Residents should have their homes tested by certified industrial hygienists and should follow their recommendations for remediation. Homes should be retested after remediation to ensure that the toxins are no longer present.

A meta-analysis of research from the last 22 years⁵ found that different remediation and cleaning strategies have varied levels of efficacy in removing the pollutants from inside homes, and noted that, "Evidence gaps remain regarding the effectiveness of cleaning strategies for settled dust and trace metals following episodes of wildfire smoke."

- Laboratory studies indicate that wiping, laundering, vacuuming, and mopping can reduce concentrations of polycyclic aromatic hydrocarbons (PAHs) and VOCs on surfaces and in indoor air; however, effectiveness varies by pollutant, surface type, and method.
- Cleaning smoke-exposed glass reduced PAHs by 71% (ethanol) and 62% (commercial cleaner); laundering cotton removed 48% of PAHs.
- Combined vacuuming, mopping, and dusting reduced airborne formic acid by 50%, formaldehyde by 32%, furan by 19%, and water-soluble organic carbon by 39%.

CAN AIR PURIFIERS HELP?

HEPA portable air cleaners and ventilation can help to reduce VOC and PM pollutant concentrations, but effects may be temporary and influenced by operational conditions. If you still see soot and ash in your home or smell chemicals, you should ventilate to help these materials off gas:

- **Open windows.** However, make sure not to ventilate or air out your home when there are outdoor conditions that may bring more harmful materials inside (e.g., nearby debris removal, construction activity, air quality alerts).
- **Run HVAC system with a MERV-13 or higher-rated filter.** It is also recommended to always change your HVAC filter immediately following a fire, as wildfire smoke can affect filter performance.
- **Use air purifiers in bedrooms and high traffic areas.** Portable air cleaners with HEPA filters plus activated carbon prefilters help to remove both fine particles (PM) and gasses (VOCs).

The CA Air Resources Board has compiled a list of certified air cleaning devices on their website at <https://ww2.arb.ca.gov/list-carb-certified-air-cleaning-devices>

For answers to more questions about the LA fires and your health, please visit: lafirehealth.org/faq

1. LA Fire HEALTH Study, "Data Brief 2." March 5, 2025.

2. Gen Pei et al. "Levels and Sources of Airborne Volatile Organic Compounds in Fifty Homes Following the 2025 Los Angeles Wildfires." ACS EST Air 12 June 2026; 3 (6): 1552–1563. <https://doi.org/10.1021/acsestair.5c00508>

3. Yuan Yao et al. "Indoor and Outdoor Volatile Organic Compound Levels during and after the 2025 Los Angeles Wildfires." Environ. Sci. Technol. Lett. 13 January 2026; 13 (1): 70–75. <https://doi.org/10.1021/acs.estlett.5c00919>

4. LA Fire HEALTH Study, "Data Brief 7." August 26, 2025

5. Huff RD. After the wildfire: Indoor smoke residues and cleaning considerations. Vancouver, BC: National Collaborating Centre for Environmental Health. 2026 June. <https://ncceh.ca/>