Smoke Damage and Reducing Risk Indoors After the Wildfires

ENVIRONMENTAL HEALTH

County of Los Angeles Public Health

Wildfire smoke from the recent LA Wildfires has heightened community concerns about potential post-fire risks within buildings and from contaminated soil.

Considerations regarding testing indoors after a wildfire

Smoke from wildfires can get inside buildings through windows, doors, vents, and small cracks or gaps. Once inside, it may leave behind potentially harmful indoor contamination—often referred to as smoke damage—which may include:

- Soot: Fine black or gray powder that settles on surfaces and into materials
- Ash: Larger, visible particles from incomplete burning
- Odors: Lingering smoke smells from gases and volatile organic compounds (VOCs)
- Chemical Residues: Post-fire contaminants, such as PAHs (polycyclic aromatic hydrocarbons) and heavy metals

The presence and severity of smoke damage can vary widely—even between properties within the same neighborhood—due to many factors such as building design, airflow, and how long the property was exposed to smoke.

It's important to cleanup smoke damage because it can impact indoor air quality and affect the health of people living or working in a building. If a tenant-occupied property has smoke damage, the landlord is responsible for mitigation/clean-up and ensuring that the property is "habitable"—meaning, safe and fit to live in. Depending on the extent of smoke damage inside the building, a professional evaluation, which may include testing and cleaning or remediation recommendations, may be appropriate. Examples of professionals trained for doing this type of assessment with recommendations for mitigation are certified environmental or industrial hygiene specialists, those with certifications from organizations like the Institute of Inspection Cleaning and Restoration Certification (IICRC) and the Restoration Industry Association (RIA), or those with specialized training in smoke damage restoration.

A certified professional may recommend testing a) before cleaning to help determine the type and scope of cleaning warranted and b) after cleaning to help assess the cleanup performed and if more actions are recommended.

While wildfires can be a major source of indoor contamination, it's important to recognize that contaminants from everyday sources—like outdoor air, soil tracked in on shoes or pets, cleaning products, and fumes from

cooking or other products like paints or pesticides—can also enter our living and workspaces. Below are some considerations to help reduce potential exposures indoors.

Prevent dirt/dust in your yard from entering the home

- **Use doormats.** Place doormats at all entrances and wash them regularly.
- **Remove shoes.** Encourage taking shoes off before entering the home. If taking shoes off inside, put sticky mats inside at every entrance to help catch dust and dirt from shoes.
- **Cover bare soil.** Use grass, mulch, wood chips, gravel, decking, hardscaping or ground cover plants. Prioritize play areas, walking paths, and spots near doors or patios.
- **Control exposure to soil.** Keep children and pets from digging or playing in bare soil. Wash children's hands and pet's paws after direct contact with bare soil
- **Regularly clean outdoor play equipment.** Wet wipe children's outdoor play equipment.

Removing dirt/dust that has entered the home

- **Regularly clean entryways.** Vacuum, gently sweep, or mop entryways to reduce tracked-in dirt.
- **Regularly clean indoor surfaces.** Wet wipe solid surfaces, such as floor, wall, counters, shelves, toys, etc.
- **Improve indoor air quality.** Use air purifiers to reduce chemical and dust in the air.
- **Fabrics and Textiles.**
    - Use a High Efficiency Particulate Air (HEPA) vacuum to help remove dirt/dust on uncovered textiles and other fabrics, such as couches, pet beds, and plush toys.
    - Wash and dry textiles and other fabrics, such as bedding, towels, and clothing, in the washer/dryer, where possible.
    - For deeper cleaning, consider steam cleaning or using upholstery cleaner.
- **Maintain HVAC system.** Replace HVAC system air filters regularly.
- Dispose of items that cannot be adequately cleaned.
- More extensive techniques, if needed, may include:
    - Repainting walls to encapsulate odors absorbed into paint
    - HVAC duct work cleaning
    - Thermal fogging of deodorizing compounds or ozone treatment