

Managing Smoke Damage After a Megafire

1. Understanding the Impact of a Megafire

Megafires affect more than just burned homes. Smoke and soot can travel miles, contaminating the air and structures even beyond the direct fire zones. This contamination presents long-term health risks and significant property damage.

2. Initial Risk Assessment

- Conduct visual and smell-based inspections for soot, ash, and discoloration.
- Understand the possibility of 'olfactory desensitization'—long exposure may dull your sense of smell.
- Hire a [Certified Industrial Hygienist](#) to test for PM2.5, VOCs, heavy metals, asbestos, and other toxins.
- Monitor air quality using reliable sources such as [AirNow](#) or [AirVisual](#).

3. Protective Gear and Air Filtration

- *Outdoors:* Wear [N95 or better respirators](#). In VOC-heavy areas, use a respirator with combination cartridges.
- *Indoors:* Use [CARB-certified HEPA](#) air purifiers.
- Install [MERV 13+ filters](#) in HVAC systems.
- Run HVAC systems on fan mode for 24+ hours before reoccupying the home.

4. Re-Entering Your Home Safely

- Wear PPE: gloves, goggles, long sleeves, and a proper mask.
- Avoid disturbing ash—no dry sweeping or blowing.
- Begin cleaning with HEPA vacuuming and [dry sponges](#).
- Follow with damp cleaning using [enzyme-based](#) or [non-toxic cleaners](#).

5. Prioritize Indoor Cleaning

- Clean interiors before addressing exterior areas.
- Remove shoes at entry points; wipe pets' paws.
- Use dry chem sponges on delicate surfaces.
- Use microfiber cloths and soft-bristle brushes for wet cleaning.
- Clean from top to bottom to avoid re-contaminating cleaned areas.

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After the Fire USA is an initiative of Rebuild Northbay Foundation, a registered nonprofit (501c3 & 501c4). We help communities navigate wildfires across the American West. We collaborate with public officials (regional, state and federal), private sector, nonprofit community, and support community led and designed recovery.

6. Material Removal and Remediation

- Discard and replace contaminated carpets, insulation, drywall, soft goods, and plush toys.
- Replace items that fail both the smell and visual assessments.
- Hire professionals if contamination is extensive or poses health risks.

7. Long-Term Monitoring and Prevention

- Install indoor sensors for PM2.5 and VOCs.
- Keep HEPA purifiers and HVAC filters well-maintained.
- Retest air and surfaces regularly to confirm successful remediation.
- Keep your indoor environment sealed and clean to prevent new contamination.

8. Working With Professionals and Insurance

- Hire [Certified Industrial Hygienists](#) via the AIHA Directory.
- Use cleanup crews certified in [HAZWOPER](#) standards.
- Ensure all work includes written cleanup protocols.
- Document the home thoroughly with photographs before any cleaning.
- Request both pre- and post-cleaning verification reports for insurance purposes.

9. Tips for DIY Cleaners

- Dos:
 - Wear complete PPE.
 - Use HEPA vacuums and suitable cleaning products.
 - Wash clothes in hot water.
 - Use baking soda or activated charcoal for deodorizing.
 - Clean HVAC vents and replace filters.
- Don'ts:
 - Don't re-enter too quickly—let the area ventilate.
 - Don't use general cleaning products on soot.
 - Don't ignore hidden or enclosed areas.
 - Don't handle electronics—leave that to professionals.
 - Don't dispose of potentially salvageable items before insurance documentation.

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10. Special Considerations for Families

- Children are highly vulnerable to smoke exposure.
- Avoid keeping plush toys or soft furnishings that were exposed to smoke.
- Create clean, safe zones using sanitized or new items.

11. Recovery Timeline and Community Safety

- Complete cleanup and recovery may take 9 months or more.
- Local agencies may apply coatings to debris from total loss homes to reduce airborne particles.
- Include attics, crawl spaces, and HVAC systems in your remediation plan.
- Look for future assistance programs for underinsured or uninsured households.

Conclusion

Managing smoke damage requires diligence, protective measures, expert assistance, and community collaboration. Prioritize health, thoroughly document impacts, and follow a methodical recovery path.

******Helpful resource links are available on next page.***



Resources, Cleaning Products and Tools:

- Dry Sponges Cleaners: <https://bit.ly/4jzvF7q>
- Melaleuca Cleaning Products: <https://www.melaleuca.com/productstore/cleaning-and-laundry/cleaning>
- 7th Generation Cleaning Products: <https://www.seventhgeneration.com/cleaning-products>

Air Filtration and Cleaners:

- California Air Resources Board - Air Cleaner Info: <https://ww2.arb.ca.gov/>
- CARB-Certified Air Cleaning Devices: <https://ww2.arb.ca.gov/list-carb-certified-air-cleaning-devices>
- EPA Guide to Air Cleaners in the Home: <https://www.epa.gov/indoor-air-qualit...>
- What is a HEPA Filter?: <https://www.epa.gov/indoor-air-qualit...>
- What is a MERV Rating?: <https://www.epa.gov/indoor-air-qualit...>

Wildfire Safety:

- South Coast AQMD - Wildfire Smoke & Ash Safety Tips: <https://www.aqmd.gov/home/air-quality...>
- NIEHS Wildfire Response Training Tool: <https://tools.niehs.nih.gov/wetp/inde...>
- California Department of Public Health - N95 FAQs: <https://www.cdph.ca.gov/Programs/EPO/Pages/Wildfire%20Pages/N95-Respirators-FAQs.aspx>

General Air Quality and Particulates:

- AirNow.gov - How to Use the Site: <https://www.airnow.gov/how-to-use-thi...>
- Air Quality Index Basics: <https://www.airnow.gov/aqi/>
- EPA - Particulate Matter Basics: <https://www.epa.gov/pm-pollution/part...>
- Dioxins and Furans Fact Sheet: <https://archive.epa.gov/epawaste/haza...>

Industrial Hygienists/Consultant Listings:

- American Industrial Hygiene Association – general website: <https://www.aiha.org/>
- American Industrial Hygiene Association – Consultant listing: <https://www.aiha.org/consultants-directory>

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