



County of Santa Cruz

Health Services Agency ♦ Environmental Health Division

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Protecting Public Health from Fire Ash

All persons accessing burned structures should be aware of the potential hazards associated with those sites. Cleanup efforts at these sites may expose you to ash, soot, and fire decomposition products that can cause health effects including, but not limited to, eye/skin/respiratory irritation. If possible, try to **AVOID** direct contact with ash. If you get ash on your skin, in your eyes, or in your mouth, wash it off as soon as you can, with clean or sterile water.

Ash from burned structures is generally more hazardous than forest ash. Fire ash contains microscopic particles (dust, dirt, soot) that can be deposited on indoor and outdoor surfaces and can also be inhaled if the ash becomes airborne. Unless tested, the ash is not classified as a hazardous waste, however it may contain traces of hazardous chemicals such as metals (lead, cadmium, nickel and arsenic), asbestos (from older homes or other buildings), perfluorochemicals (from degradation of non-stick cookware), flame retardants, and caustic materials. For these reasons, it is advisable to be cautious and avoid any unnecessary exposure to the ash.

Health Effects of Ash: Fire ash may be irritating to the skin, nose, and throat, and may cause coughing and/or nose bleeds. Fine particles can be inhaled deeply into lungs and may aggravate asthma and make it difficult to breathe. If the ash contains asbestos, nickel, arsenic or cadmium, then exposure is a particular concern because these substances can cause cancer. Because the substances in the ash vary, it is always best to be cautious.

High-Risk Persons: People with asthma or other lung diseases, pregnant women, and the elderly or very young should exercise special caution because they may be more susceptible to health effects from the ash.

Children: Do not allow children to play in ash. Wash and clean all children's toys carefully after possible contamination. Children should not be in the vicinity while cleanup is in progress. Even if care is exercised, it is easy to stir up ash that may contain hazardous substances. In addition, the exploratory behavior of children may result in direct contact with contaminated materials.

Pets: Clean ash off house pets and other domesticated animals if they have been in contaminated areas. It is best to not allow pets in these areas due to the potential risk to their health and their ability to spread outside of contaminated areas.

Clothing: Covering clothing is recommended, when in proximity to ash. Wear gloves, long-sleeved shirts, and long pants to avoid skin contact, whenever possible. Goggles are recommended. Contact with wet ash may cause chemical burns or irritation on skin. Change your shoes and clothing prior to leaving the decontamination site, to avoid tracking ash into your car, residence, etc.

Masks: When exposure to dust or ash cannot be avoided, use a well-fitted NIOSH-certified air-purifying respirator mask. A mask rated N-95 is much more effective than unrated dust- or surgical-masks in blocking ash particles. Due to COVID-19, only N-95 masks that do not have one-way valves should be used. Although smaller sized masks may appear to fit a child's face, manufacturers do not recommend their use for children. If your child is in an area that warrants wearing a mask, you should remove them from that area to an environment with cleaner air. Persons with heart and respiratory problems should consult with their primary care physician prior to wearing a mask to clean up after a fire.