



Volcanic Ash Facts

For More Information:

Centers for Disease Control & Prevention, Toll-Free:

1-888-246-2675
1-888-246-2857 (Español)
1-866-874-2646 TTY

You can also visit the following Web sites for the latest information about the health effects of volcanic ash:

U.S. Geological Survey
<http://volcanoes.usgs.gov/ash/health/>

Volcanic Ash Fall: How to be Prepared for an Ash Fall
<http://emd.wa.gov/3-map/mit/eq-tsunami/vol-ash-english.pdf>

Centers for Disease Control & Prevention:
www.cdc.gov

Introduction

- Recent earthquakes on Mt. St. Helens in the State of Washington have raised concerns about a potential volcanic eruption.
- The May 18, 1980 eruption of Mt. St. Helens resulted in heavy ash fall in many areas, including northwest Oregon.
- People are understandably concerned about the short and long-term health effects from exposure to volcanic ash.
- Studies of the effects of exposure to volcanic ash following the 1980 eruption were very reassuring. While volcanic ash is irritating to the eyes and when breathed in, no severe or lasting health effects were observed in people living in areas of ash fall.
- Simple precautions to limit exposure by using a paper dust mask or cloth scarf when outside offer very effective protection for most people.
- This information is based on a comprehensive evaluation of the health effects of exposure to volcanic activity carried out by researchers in Oregon and Washington following the 1980 eruption.

Risks

- All residents of areas where there is ash fall are at risk of breathing volcanic dust or getting ash in their eyes.
- **Short-term breathing** of volcanic ash is not known to pose a significant health hazard for healthy individuals.
- However, exposure to ash can make breathing difficult for infants, the elderly and those with respiratory ailments.
- People with existing respiratory conditions, such as chronic bronchitis, emphysema and asthma, are more at risk for developing acute respiratory symptoms from breathing volcanic ash in the air.
- **Getting ash in the eyes** can cause immediate irritation.
- Driving in ashy conditions may be difficult or impossible due to slippery road conditions or poor visibility, resulting in automobile crashes.

Symptoms

- Symptoms of exposure to volcanic ash may include a runny nose, sore throat, dry cough, irritated or itchy eyes and minor skin irritations.
- These short-term effects are not considered harmful for people without existing respiratory conditions.

Prevention

- People should take steps to minimize their exposure to airborne ash.
- People with respiratory disease or symptoms are advised to stay inside and avoid unnecessary exposure to ash.
- In fine-ash environments, wear goggles or corrective eyeglasses instead of contact lenses to protect eyes from irritation.
- Keep all doors and windows closed when there is heavy ash accumulation.
- People who normally commute by bicycle, walk or wait at bus stops should take precautions to avoid breathing volcanic dust stirred up by vehicles.

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- When cleaning up ash around your home or neighborhood, wear long sleeves and pants, and a dust mask. If a dust mask is not available, use a fabric mask improvised from a handkerchief or scarf. Dampening the fabric with water will improve its effectiveness.
- Handle ash in open, well-ventilated areas. Dampening the ash in your yard can help prevent it from billowing up into the air and make clean-up less hazardous. When cleaning up ash, do not use leaf blowers, reversed vacuum hoses or other tools that stir up the ash.
- Burial, mulching or mixing ash into your soil is an effective means of disposal. The nutrients in ash may even help your garden.
- Clean-up workers and others who work outside and may be exposed to ash for prolonged periods of time should wear protective clothing and tight-fitting dust masks. NIOSH recommends N-95 masks for dusty conditions.
- Protect homes and offices from ash infiltration. Clean air filters on heating and cooling equipment frequently to avoid ash buildup.
- Keep pets indoors. If pets go outside, brush or vacuum them before letting them indoors. If possible, move livestock into a barn or other outbuilding and make sure they have clean food and water.
- Prevent excessive accumulation of ash on roofs. Four inches or more of wet ash will stress most roofs.
- Remember that vehicular crashes are more likely to occur because of reduced visibility and slippery roads. If possible, avoid driving in areas of heavy ash fall. Ash is harmful to vehicles, and driving through ash stirs it up. If you must drive, drive slowly, use headlights and keep your windshield clean.
- Even after the initial ash fall has ended, volcanic dust is very light and easily stirred up. Precautions to avoid breathing the dust should continue until cleanup is complete.

Special Precautions for Children

- Keep children indoors when ash is visible outdoors.
- Children and adults should avoid strenuous play or running when ash is in the air, since this leads to heavier breathing and draws small particles more deeply into the lungs.
- If children must be outdoors when ash is present in the air, they should wear a mask. However, it is important for the mask to fit tightly, and most masks are designed to fit adults rather than children.
- Small children may swallow ash. This is not believed to pose a health hazard.
- Children should be prevented from playing in areas where ash is deep on the ground or piled up, especially if they are likely to roll in the ash.
- More frequent cleaning of home interior areas where children play will minimize the amount of indoor ash exposure in areas of heavy ash falls.

Treatment

- Anyone who is suffering from severe respiratory symptoms should seek medical attention as soon as possible.
- If you get a small amount of ash in your eyes, flush with a gentle stream of water as soon as possible. Anyone who experiences severe or prolonged eye irritation should also seek medical attention.