- 5. Check your home for structural damage. If you have any doubts about safety, have your home inspected by a professional before entering.
- 6. Check chimneys for visual damage; however, have a professional inspect the chimney for internal damage before lighting a fire.
- Clean up spilled medicines, bleaches, gasoline and other flammable liquids. Evacuate the building if gasoline fumes are detected and the building is not well ventilated.
- 8. Visually inspect utility lines and appliances for damage.
 - If you smell gas or hear a hissing or blowing sound, open a window and leave. Shut off the main gas valve. Report the leak to the gas company from the nearest working phone or cell phone available. Stay out of the building. If you shut off the gas supply at the main valve, you will need a professional to turn it back on.
 - Switch off electrical power at the main fuse box or circuit breaker if electrical damage is suspected or known.
 - Shut off the water supply at the main valve if water pipes are damaged.
 - Do not flush toilets until you know that sewage lines are intact.
- 9. Open cabinets cautiously. Beware of objects that can fall off shelves.
- 10. Use the phone only to report lifethreatening emergencies.
- 11. Listen to news reports for the latest emergency information.
- 12. Stay off the streets. If you must go out, watch for fallen objects, downed electrical wires, weakened walls, bridges, roads and sidewalks.

- 13. Stay away from damaged area unless your assistance has been specifically requested by police, fire or relief organizations.
- 14. If you live in coastal areas, be aware of possible tsunamis, sometimes mistakenly called tidal waves. When local authorities issue a tsunami warning, assume that a series of dangerous waves is on the way. Stay away from the beach. See the "Tsunamis" chapter for more information.

Volcanoes



volcano is a vent through which molten rock escapes to the earth's surface. When pressure from gases within the molten rock becomes too great, an eruption occurs.

Some eruptions are relatively quiet, producing lava flows that creep across the land at 2 to 10 miles per hour. Explosive eruptions can shoot columns of gases and rock fragments tens of miles into the atmosphere, spreading ash hundreds of miles downwind. Lateral blasts can flatten

trees for miles. Hot, sometimes poisonous, gases may flow down the sides of the of the volcano.

Lava flows are streams of molten rock that either pour from a vent quietly through lava tubes or by lava fountains. Because of their intense heat, lava flows are also great fire hazards. Lava flows destroy everything in their path, but most move slowly enough that people can move out of the way.

Fresh volcanic ash, made of pulverized rock, can be harsh, acidic, gritty, glassy

and odorous. While not immediately dangerous to most adults, the combination of acidic gas and ash could cause lung damage to small infants, very old people or those suffering from severe respiratory illnesses. Volcanic ash can also damage machinery, including engines and electrical equipment. Ash accumulations mixed with water become heavy and can collapse roofs.

Volcanic eruptions can be accompanied by other natural hazards: earthquakes, mudflows and flash floods, rock falls and landslides, acid rain, fire, and (under special conditions) tsunamis. Active volcanoes in the U.S. are found mainly in Hawaii, Alaska and the Pacific Northwest.

What to do before an eruption

- Make evacuation plans. If you live in a known volcanic hazard area, plan a route out and have a backup route in mind.
- 2. Develop a household disaster plan. In case household members are separated from one another during a volcanic

eruption (a real possibility during the day when adults are at work and children are at school), have a plan for getting back together. Ask an out-of-town relative or friend to serve as the "household contact," because after a disaster, it's often easier to call long distance. Make sure everyone knows the name, address, and phone number of the contact person.

3. Assemble a disaster supply kit (see "Emergency Planning and Disaster Supplies" chapter).

The May 18, 1980

eruption of Mount

St. Helens in

Washington took

the lives of 58

people and caused

property damage

in excess of \$1.2

billion.

- 4. Get a pair of goggles and a throw-away breathing mask for each member of the household in case of ashfall.
- 5. Do not visit an active volcano site unless officials designate a safe viewing area.

What to do during an eruption

- 1. If close to the volcano evacuate immediately away
- from the volcano to avoid flying debris, hot gases, lateral blast, and lava flow.
- 2. Avoid areas downwind from the volcano to avoid volcanic ash.
- 3. Be aware of mudflows. The danger from a mudflow increases as you approach a stream channel and decreases as you move away from a stream channel toward higher ground. In some parts of the world (Central and South America, Indonesia, the Philippines), this danger also increases with prolonged heavy rains. Mudflows can move faster than you can walk or run. Look upstream before crossing a bridge, and do not cross if the mudflow is approaching. Avoid river valleys and low-lying areas.

- 4. Stay indoors until the ash has settled unless there is danger of the roof collapsing.
- 5. During an ash fall, close doors, windows, and all ventilation in the house (chimney vents, furnaces, air conditioners, fans and other vents).
- Avoid driving in heavy dust unless absolutely required. If you do drive in dense dust, keep speed down to 35 mph or slower.
- 7. Remove heavy ash from flat or lowpitched roofs and rain gutters.
- 8. Volcanic ash is actually fine, glassy fragments and particles that can cause severe injury to breathing passages, eyes, and open wounds, and irritation to skin. Follow these precautions to keep yourself safe from ashfall:
 - Wear long-sleeved shirts and long pants.
 - Use goggles and wear eyeglasses instead of contact lenses.
 - Use a dust mask or hold a damp cloth over your face to help breathing.

Keep car or truck engines off. Driving can stir up volcanic ash that
can clog engines and stall vehicles.
Moving parts can be damaged
from abrasion, including bearings,
brakes, and transmissions.

What to do after the eruption

- 1. Avoid ashfall areas if possible. If you are in an ashfall area cover your mouth and nose with a mask, keep skin covered, and wear goggles to protect the eyes.
- Clear roofs of ashfall because it is very heavy and can cause buildings to collapse. Exercise great caution when working on a roof.
- 3. Avoid driving through ashfall which is easily stirred up and can clog engines, causing vehicles to stall.
- 4. If you have a respiratory ailment, avoid contact with any amount of ash. Stay indoors until local health officials advise it is safe to go outside.