

# Disaster Preparation Handbook

## An emergency planning and response guide

*How to Use 9-1-1*

*Emergency Planning for Businesses*

*Preparing Your Family for Disasters*

*Terrorism*

*Methamphetamine Labs*

*Preparing Your Household for Emergencies*

*Checklist of Disaster Emergency Supplies*

*Preparing Your Home for Disasters*

*Preparing for Winter Storms*

*Preparing for Natural Disasters*



*This publication prepared jointly by*



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# How to Use 9-1-1

Call 9-1-1 only to report a life-threatening situation requiring police, medical or fire emergency assistance. Do not call 9-1-1 unnecessarily. 9-1-1 lines must be kept open for people with true emergencies.

## When to call 9-1-1

- To get help for someone who is hurt. For example:
  - If someone falls and is seriously injured.
  - If you see someone hurt in an accident.
- If you see someone acting suspiciously, stealing, or breaking into a home or building.
- If you smell smoke or see a fire.
- If you see people fighting and hurting each other.
- If you see someone being robbed or beaten.
- If you believe emergency assistance may be needed but are not sure, call 9-1-1 and describe the situation.
- If you call 9-1-1 by accident, don't hang up. Explain what happened to the 9-1-1 call-taker.

## When not to call 9-1-1

- Never call 9-1-1 as a joke.
- Never call 9-1-1 to ask for information.
- Never call just to see if 9-1-1 is working.

## What to say when you call 9-1-1

- Tell the person what is wrong.
- Tell the person your name, address and telephone number.
- Do not hang up until they tell you that you should; they may have to ask you more questions.

## Teach your children the correct use of 9-1-1

- Parents should use the information on this sheet to talk to children about how and when to use 9-1-1. Knowing the right thing to do can save lives.

## Keep phone lines clear during emergencies

- During emergencies, telephone services become overloaded. You can help keep service available for those who need it most by making only calls that are critical. Limit FAX machine and computer use as well; their use also ties up phone lines.

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# Emergency Planning for Businesses

**Businesses are just as vulnerable to emergency situations as are individuals. It is important for businesses to have comprehensive emergency plans to protect their employees and their customers, in addition to the survival of business operations.**

**Following these guidelines will help you in your planning process.**

- Develop a comprehensive emergency management plan for your business.
- Work closely with your local law enforcement, fire, emergency medical service, and emergency management office in all planning endeavors. Coordination is the key to success.
- Make sure an evacuation plan is a vital part of your emergency plan.
- Conduct training classes with all employees on how to carry out your emergency plan. Your employees will look to you for direction and leadership in times of disaster.
- Have a National Oceanic and Atmospheric Administration (NOAA) Weather Radio in your office for official notification of any predictable disaster.
- Practice your business emergency management plan at least twice a year, making sure that you change any part of the plan that proves problematic during the practice.
- Maintain an accurate list of all employees, their phone numbers and emergency contact numbers for use in the event of an emergency.
- Back up computer data on a regular basis. Consider file storage off-site to facilitate recovery.
- Have a recovery plan as part of your business emergency plan. Before the disaster, identify what types of losses your business could incur.
- Identify an alternate site for your business operation. Know ahead of time places that would adequately facilitate continuation of your business.
- Develop an emergency contact list of all suppliers, insurance agents, and all other individuals and organizations you might need to notify in the event of a disaster.
- Make certain your business has adequate insurance to cover losses incurred by a disaster.
- Maintain a current list of all company equipment and resources, including model and serial numbers, along with the purchase price and vendor.
- If you have a home-operated business, don't assume your homeowner's insurance will cover your business. You might need an endorsement on your insurance policy to cover business losses. Check with your insurance agent before the disaster strikes.

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# Preparing Your Family for Disasters

After a disaster, you and your family should be prepared to be on your own for at least three days. Emergency response teams may be overwhelmed and may not be able to provide immediate care to all who need it. Here are steps you can take now to help your family through any disaster.

## Things you can do to protect your family

- Choose a place for your family to meet after a disaster in case you are apart when a disaster happens.
- Choose a person outside the immediate area to contact if family members are separated. Your contact person should live far enough away that they are not involved in the same emergency.
- Know how you can contact your children at their school or daycare and when and where you can pick them up after a disaster. Designate others to pick up your child should you be unable to pick them up. Keep your child's emergency release card up-to-date.
- Put together an emergency supply kit for your home and workplace. If your child's school or daycare stores personal emergency kits, make one for your child to keep there.
- Know the locations of the nearest fire and police stations.
- Learn your community's warning signals, what they sound like, and what you should do when you hear them.
- Learn first aid and CPR.
- Learn how to shut off your water, gas, and electricity. Know where to find shut-off valves and switches.
- Keep a small amount of cash available. If the power is out, ATM machines will not operate.
- If you have a family member who does not speak English, prepare an emergency card written in English indicating that person's name, address, and any special needs such as medication or allergies. Tell that person to keep the card with them at all times.
- Conduct earthquake and fire drills once every six months.

- Make copies of your vital records and store them in a safe deposit box in another city or state. Make sure your originals are stored safely. Take photos and videotapes of your home and your valuables and keep them in your safe deposit box.
- Make sure family members know all the possible ways to exit your home. Keep all exits clear.
- Make sure all family members know about your plan. Give emergency information to babysitters or other care-givers.

## Things you can do to protect your pets

- Store enough food and water to last at least three days for each pet.
- Prepare an emergency kit for your pet. The kit should include: an unbreakable dish, medications and instructions, a leash or pet carrier, and your pet's veterinary records.
- Consider having a permanent microchip implanted in your pet; this ID cannot be lost or removed. See your veterinarian for more information.
- Make arrangements for your pets if you must evacuate after a disaster. Remember, pets are not allowed in shelters. Leave your pets in a secure place with ample water and food. If possible, return daily to check on your pets until you can return to your home permanently.

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Developed by the  
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# **Disaster Tips for People with Visual Disabilities**

The more you prepare for earthquakes or other disasters the more you will be able to protect yourself, your family and your belongings.

## **Canes**

- If you use a cane, keep extras in strategic, consistent and secured locations at work, home, school, volunteer site, etc., to help you maneuver around obstacles and hazards.
- Keep a spare cane in your emergency kit.

## **Alternate mobility cues**

- If you have some vision, place security lights in each room to light paths of travel. These lights plug into electric wall outlets and light up automatically if there is a loss of power. They will, depending on type, continue to operate automatically for 1 to 6 hours and can be turned off manually and used as a short-lasting flashlight.
- Store high-powered flashlights with wide beams and extra batteries.
- Plan for losing the auditory clues you usually rely on after a major quake.
- Service animals may become confused, panicked, frightened or disoriented during and after a disaster. Keep them confined or securely leashed or harnessed. A leash/harness is an important item for managing a nervous or upset animal. Be prepared to use alternative ways to negotiate your environment.

## **Label supplies**

- If helpful, mark emergency supplies with large print, florescent tape or Braille.

## **Secure computers**

- Anchor special equipment and large pieces of furniture, such as computers and shelving. Create a computer back-up system for important data and store it off site.

## **Advocacy issues**

- Advocate that TV news not only post important phone numbers, but also announce them slowly and repeat them frequently for people who cannot read the screen.



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# Disaster Tips for the Hearing Impaired

This checklist will assist people who are deaf or hearing impaired to be prepared when disasters strike.

## Hearing aids

- Store hearing aid(s) in a strategic, consistent and secured location so they can be found and used after a disaster.
  - For example, consider storing them in a container by your bedside, which is attached to a nightstand or bedpost using a string or Velcro. Missing or damaged hearing aids will be difficult to replace or fix immediately after a major disaster.

## Batteries

- Store extra batteries for hearing aids and implants. If available, store an extra hearing aid with your emergency supplies.
- Maintain TTY batteries. Consult your manual for information.
- Store extra batteries for your TTY and light phone signaler. Check the owner's manual for proper battery maintenance.

## Communication

- Determine how you will communicate with emergency personnel if there is no interpreter or if you don't have your hearing aids. Store paper and pens for this purpose.
- Consider carrying a pre-printed copy of important messages with you, such as: "I speak American Sign Language (ASL) and need an ASL interpreter," "I do not write or read English," and "If you make announcements, I will need to have them written or signed."
- If possible, obtain a battery-operated television that has a decoder chip for access to signed or captioned emergency reports.

- Determine which broadcasting systems will be accessible in terms of continuous news that will be captioned and/or signed. Advocate so that television stations have a plan to secure emergency interpreters for on-camera emergency duty.

## Alarms

- Install both audible alarms and visual smoke alarms. At least one should be battery operated.

## Advocacy

- Recruit interpreters to be Red Cross emergency volunteers.
- Maintain advocacy for TV stations to broadcast all news and emergency information in open caption format.
- Ensure hotels have access packets for the deaf and hearing-impaired persons, including audible alarms, when you travel. Ask for them when you check in.

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Developed by a group of health care professionals through a grant from the American Red Cross Northern California Disaster Preparedness Network

# Disaster Tips for People with Medical Needs

In preparing for a disaster, such as an earthquake, storm, or power outage, people with special medical needs have extra concerns. This information will help you and your family prepare for a disaster.

## Medications

- Always have at least a three day supply of all your medications.
- Store your medications in one location in their original containers.
- Have a list of all of your medications: name of medication, dose, frequency, and the name of the prescribing doctor.

## Medical supplies

- Have an extra three day supply of any medical supplies you use, such as bandages, ostomy bags, or syringes.

## Electrically powered medical equipment

- For all medical equipment requiring electrical power — beds, breathing equipment, or infusion pumps — check with your medical supply company and get information regarding a back up power source, such as a battery or generator.

## Oxygen and breathing equipment

- If you use oxygen, have an emergency supply (enough for at least a three day period).
- Oxygen tanks should be securely braced so they do not fall over. Call your medical supply company regarding bracing instructions.
- If you use breathing equipment, have a three day supply or more of tubing, solutions, medications, etc.

## Intravenous (IV) and feeding tube equipment

- Know if your infusion pump has battery back up, and how long it would last in an emergency.
- Ask your home care provider about manual infusion techniques in case of a power outage.
- Have written operating instructions attached to all equipment.

## Emergency bag

- In the event that you have to leave your home, have a bag packed at all times that contains:
  - A medication list.
  - Medical supplies for at least three days.
  - Copies of vital medical papers such as insurance cards, power of attorney, etc.

## People who can help

- An important part of being prepared for a disaster is planning with family, friends and neighbors. Know who could walk to your home to assist you if other means of transportation are unavailable.
- Discuss your disaster plans with your home health care provider.
- Ask your local fire department if they keep a list of people with special medical needs; ask to be included if they do maintain a list.
- Keep a list handy of people who can help and their phone numbers.

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# Disaster Tips for People with Mobility Disabilities

The following information will assist people with mobility disabilities and will help make them more confident when disaster strikes.

## Storage

- Store emergency supplies in a pack or backpack attached to a walker, wheelchair, scooter, etc.
- Store needed mobility aids (canes, crutches, walkers, wheelchairs) close to you in a consistent, convenient and secured location. Keep extra aids in several locations, if possible.

## Emergency supply kit

- Keep a pair of heavy gloves in your supply kit to use while wheeling or making your way over glass or debris.
- If you use a motorized wheelchair or scooter, consider having an extra battery available. A car battery can be substituted for a wheelchair battery, but this type of battery will not last as long as a wheelchair's deep-cycle battery. Check with your vendor to see if you will be able to charge batteries by either connecting jumper cables to a vehicle battery or by connecting batteries to a specific type of converter that plugs into your vehicle's cigarette lighter in the event of loss of electricity.
- If your chair does not have puncture-proof tires, keep a patch kit or can of "seal-in-air product" to repair flat tires, or keep an extra supply of inner tubes.
- Store a lightweight manual wheelchair, if available.
- Arrange and secure furniture and other items to provide paths of travel and barrier free passages.
- If you spend time above the first floor of a building with an elevator, plan and practice using alternative methods of evacuation. If needed, enlist the help of your personal support network.

- If you cannot use stairs, discuss lifting and carrying techniques that will work for you. There will be instances where wheelchair users will have to leave their chairs behind in order to safely evacuate a structure.
- Sometimes transporting someone down stairs is not a practical solution unless there are at least two or more strong people to control the chair. Therefore, it is very important to discuss the safest way to transport you if you need to be carried, and alert them to any areas of vulnerability. For example, the traditional "fire fighter's carry" may be hazardous for some people with respiratory weakness.
- You need to be able to give brief instructions regarding how to move you.

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# Helping Children After a Disaster

It's important to remember that some children may never show distress, while others may not give evidence of being upset for several weeks or even months. Other children may not show a change in behavior, but may still need your help.

Children who experience an initial traumatic event before they are 11 years old are three times more likely to develop psychological symptoms than those who experience their first trauma as a teenager or later. Children are able to cope better with a traumatic event if parents and other adults support and help them with their experiences. Help should start as soon as possible after the event.

## Children may exhibit the following behaviors after a disaster:

- Be upset over the loss of a favorite toy, blanket, etc., which is important to them.
- Change from being quiet, obedient and caring to loud, noisy and aggressive, or may change from being outgoing to shy and afraid.
- Develop night-time fears (nightmares, fear of the dark or sleeping alone).
- Be afraid the event will reoccur.
- Become easily upset, crying and whining.
- Lose trust in adults. After all, their adults were not able to control the disaster.
- Revert to younger behavior (bed wetting, thumb sucking).
- Not want parents out of their sight. Refuse to go to school or day care.
- Feel guilty they caused the disaster because of something they said or did.
- Become afraid of wind, rain or sudden loud noises.
- Have symptoms of illness, such as headaches, vomiting or fever.
- Worry about where they and their family will live.

## Things parents can do to help their children:

- Talk with the children about how they are feeling. Assure them that it's OK to have those feelings.
- Help the children learn to use words that express their feelings, such as happy, sad, angry, etc.
- Children should not be expected to be brave or tough. Tell them it's OK to cry.
- Don't give children more information than they can handle about the disaster.
- Assure fearful children you will be there to care for them; consistently reassure them.
- Go back to former routines as soon as possible. Maintain a regular schedule for the children.
- Reassure the children that the disaster was not their fault.
- Let the children have some control, such as choosing clothing or what meal to have for dinner.
- Re-establish contact with extended family.
- Help your children learn to trust adults again by keeping promises you make.
- Help your children regain faith in the future by making plans.
- Get needed health care as soon as possible.
- Spend extra time with the children at bedtime.
- Make sure the children eat healthy meals and get enough rest.
- Allow special privileges for a short period of time, such as leaving the light on when they go to bed.
- Find ways to emphasize to the children that you love them.
- Allow the children time to grieve losses.
- Develop positive anniversary activities to commemorate the event. These may bring tears, but they are also a time to celebrate survival and the ability to get back to a normal life.

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# Preventing the Spread of Germs

Here are some simple tips that will help keep respiratory infections and many other contagious diseases from spreading, especially during the cough, cold and “flu” season.

Respiratory infections affect the nose, throat and lungs; they include influenza (the “flu”), colds, pertussis (whooping cough) and severe acute respiratory syndrome (SARS). The germs (viruses and bacteria) that cause these infections are spread from person-to-person in droplets from the nose, throat and lungs of someone who is sick.

You can help stop the spread of these germs by practicing “respiratory etiquette” — good health manners: Cover your nose and mouth every time you sneeze, cough or blow your nose; put used tissues in the trash; wash your hands well and often whenever you or someone you are close to is sick. If you have a fever, cough or rash, clinics and hospitals may give you a face mask to wear in waiting areas and exam rooms, so be prepared.

Here are some tips to keep from spreading your germs to others, and to keep from catching someone else’s germs.

- If asked to, use face masks provided in your doctor’s office or clinic’s waiting room; follow their instructions to help stop the spread of germs.

## Keep the germs away:

- Wash your hands before eating, or touching your eyes, nose or mouth.
- Wash your hands after touching anyone else who is sneezing, coughing, blowing their nose, or whose nose is running.
- Don’t share things like cigarettes, towels, lipstick, toys, or anything else that might be contaminated with respiratory germs.
- Don’t share food, utensils or beverage containers with others.

## Keep your germs to yourself:

- Cover your nose and mouth with a tissue when sneezing, coughing or blowing your nose.
- Throw out used tissues in the trash as soon as you can.
- Always wash your hands after sneezing, blowing your nose, or coughing, or after touching used tissues or handkerchiefs. Wash hands often if you are sick.
- Use warm water and soap or alcohol-based hand sanitizers to wash your hands.
- Try to stay home if you have a cough and fever.
- See your doctor as soon as you can if you have a cough and fever, and follow their instructions, including taking medicine as prescribed and getting lots of rest.



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# Cover Your Cough



Cover your mouth and nose with a tissue when you cough or sneeze

or

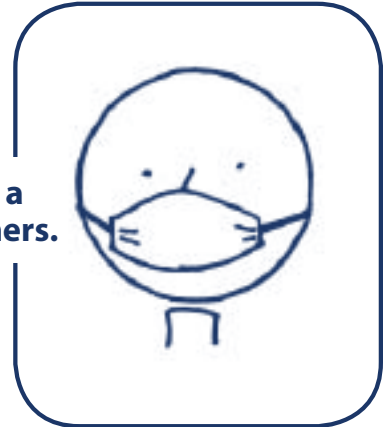
cough or sneeze into your upper sleeve, not your hands.



Put your used tissue in the waste basket.



You may be asked to put on a surgical mask to protect others.



Wash with soap and water

or

clean with alcohol-based hand cleaner.



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# Clean Your Hands

after coughing and sneezing.



# Terrorism

**Terrorists look for visible targets where they can avoid detection before or after an attack, such as international airports, large cities, major public events, resorts, and high-profile landmarks. Preparing for terrorism is critical, just as for other types of disasters.**

More information on bio-terrorism preparedness and response is available on the Web from the Centers for Disease Control and Prevention at [www.bt.cdc.gov](http://www.bt.cdc.gov)

This information was taken from Federal Emergency Management Administration's fact sheet, "Terrorism."

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- Be alert and aware of your surrounding area — there may be little or no warning.
- Take precautions when traveling. Be aware of conspicuous or unusual behavior. Do not accept packages from strangers. Do not leave your luggage unattended.
- Learn where emergency exits are located, and how to quickly evacuate a building, transportation corridor, or congested public area.
- Be aware of your immediate surrounds, and stay clear of heavy or breakable objects that could move, fall, or break in an explosion.

## Prepare for building explosion

The use of explosives by terrorists can result in collapsed buildings and fires. People who live or work in a multi-level building should follow these guidelines.

- Know the emergency evacuation procedures that are in place.
- Know where the fire exits are located, and be able to find them in the dark.
- Keep fire extinguishers in working order. Know where they are located and know how to use them.
- Learn first aid and CPR.
- Keep and maintain a disaster supply kit on each floor of the building.

## If an explosion occurs

- Immediately get under a sturdy table or desk if things are falling around you.
- Heavy smoke and poisonous gases collect first along the ceiling. Stay below the smoke at all times.

## If there is a fire, observe these procedures:

- Stay low to the floor and exit the building as quickly and calmly as possible.
- Cover your nose and mouth with a wet cloth, if possible.
- Test closed doors for heat with the palm of your hand and forearm on the lower and upper portions of the door. If it is not hot, brace yourself against the door and open it slowly. If it is hot or warm to the touch, do not open the door. Seek an alternate escape route.

## If trapped in debris

- If you have a flashlight, use it to help rescuers locate you.
- Stay in your area so that you don't kick up dust.
- Cover your mouth with a handkerchief or clothing.
- Tap on a pipe or wall so that rescuers can locate you. Use a whistle if one is available. Shout only as a last resort — shouting can cause a person to inhale dangerous amounts of dust.

## Biological agents

- Biological agents are organisms or toxins that have illness-producing effects on people, livestock and crops. Because biological agents cannot necessarily be detected and may take time to grow and cause disease, it is almost impossible to know that a biological attack has occurred.
- If the government were to become aware of a biological attack through an informant or warning by terrorists, they would most likely instruct people to either seek shelter where they are and seal the premises (shelter-in-place), or evacuate immediately.
- A person affected by a biological agent requires the immediate attention of professional medical personnel. Some agents are contagious, and victims may need to be quarantined. Also, some medical facilities may not be receiving victims for fear of contaminating the hospital population.



# Shelter-in-Place

**Chemical agents are poisonous gases, liquids, or solids that have toxic effects on people, animals and plants. Most chemical agents cause serious injuries or death. Severity of injury depends on the type and amount of the chemical agent used, and the duration of exposure.**

Were a chemical agent attack to occur, authorities would instruct people to either seek shelter where they are and seal the premises (shelter-in-place), or evacuate immediately. If the order is to remain in your home, office or school, you will need to follow these directions for “shelter-in-place.”



■ **Move or stay inside.**



■ **Close all windows and doors.**



■ **Turn off ventilation systems (heating and air-conditioning, fireplace dampers, etc.).**



■ **Go into a room with the fewest doors and windows and seal the room.**



■ **Stay in the room until told by the authorities that it is safe to come out.**

## How to shelter-in-place

- Dampen towels and place over the crack under the door.
- Cut plastic sheeting to fit over the windows and vents. Secure the plastic in place with duct tape.
- Tape around the door.
- Turn on the radio.
- Don't ventilate (air out) or leave your sealed shelter until you are told to do so.

## Remember

- If the order is evacuation, do so immediately, carefully following directions. Do not wander about, know where you are going, and how to get there.
- Avoiding chemical exposure should be your primary goal. Leaving your sheltered area to rescue or assist victims can be a deadly decision.

- There is no assistance that the untrained can offer victims that would likely be of any value during a chemical attack.
- If you were outside before taking shelter and think you may have been exposed to a chemical agent, there are several things you can do. If you are in a sealed shelter, take off at least your outer clothes, put them in a plastic bag and seal the bag. If water is available, wash or take a cool to warm (not hot) shower, using lots of soap and water. Do not put the soap in your eyes, just lots of water. If you leave the area, tell emergency responders or medical staff at your destination you may have been exposed. Tell the emergency responders about the sealed bag so that they can arrange for its safe removal after the emergency.
- If you have symptoms of exposure, call 9-1-1 immediately and follow their instructions.

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*Illustrations courtesy of ExxonMobil*



# Bomb Threats

**Bomb threats are usually received by telephone, but they may also be received by note, letter or email. All bomb threats should be taken very seriously and handled as though an explosive were in the building.**

Your place of employment should have a plan in place instructing what to do when a bomb threat is received.

- If you receive a bomb threat, get as much information from the caller as possible.
- Take good notes when talking to the person on the telephone. Keep the caller on the line, and write down everything that is said.
- Be aware of background noise, special voice characteristics, music, machinery, etc.
- If you are at work, have a co-worker call 9-1-1 and building security immediately. Plan how you are going to alert your co-worker.
- If you receive a bomb threat, do not touch any suspicious packages.
- Clear the area around the suspicious package, and notify police immediately.
- While evacuating a building, avoid standing in front of windows or other potentially hazardous areas.
- Do not restrict sidewalks or other areas used by emergency officials.
- If you find a bomb, don't touch it or attempt to move it. Call for help and evacuate the area immediately.

## Bomb Threat Checklist

Exact time of call: \_\_\_\_\_

Exact words of caller: \_\_\_\_\_

### QUESTIONS TO ASK:

1. When is the bomb going to explode? \_\_\_\_\_
2. Where is the bomb? \_\_\_\_\_
3. What does it look like? \_\_\_\_\_
4. What kind of bomb is it? \_\_\_\_\_
5. What will cause it to explode? \_\_\_\_\_
6. Did you place the bomb? \_\_\_\_\_
7. Why? \_\_\_\_\_
8. Where are you calling from? \_\_\_\_\_
9. What is your address? \_\_\_\_\_
10. What is your name? \_\_\_\_\_

### CALLER'S VOICE (circle all that apply)

- |           |         |         |         |
|-----------|---------|---------|---------|
| Calm      | Slow    | Crying  | Slurred |
| Stutter   | Deep    | Loud    | Broken  |
| Giggling  | Accent  | Angry   | Rapid   |
| Stressed  | Nasal   | Lisp    | Excited |
| Disguised | Sincere | Squeaky | Normal  |

If voice is familiar, whom did it sound like? \_\_\_\_\_

Were there any background noises? \_\_\_\_\_

Remarks: \_\_\_\_\_

Person receiving call: \_\_\_\_\_

Telephone number call received on: \_\_\_\_\_

Date: \_\_\_\_\_

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# Chemical Warfare Agents

**Chemical warfare agents are poisonous gases, liquids, or solids that have toxic effects on people, animals and plants. Exposure to chemical warfare agents can cause serious injuries and death. Severity of injury depends on the type and amount of the chemical warfare agent used, and the duration of exposure.**

The primary chemical warfare agents are sulfur mustard (HD) and the nerve agents GB (Sarin), and VX. In the case of intentional exposure, such as a chemical terrorism event, people would most likely be exposed to these chemicals by breathing the vapors released during the event. If an event is very large, people's skin might be exposed to the agents as microscopic droplets (aerosol).

## What is sulfur mustard?

- Sulfur mustard (mustard gas) is called a "blister" agent. It smells like garlic or mustard and ranges in color from yellow to brown. Sulfur mustard is an oily liquid at temperatures above 57 degrees (F). Sulfur mustard is solid at temperatures below 57 degrees (F).

## What are the health effects of sulfur mustard?

- Exposure to sulfur mustard can cause skin to become red and irritated. With sufficient exposure the skin will blister.
- Sulfur mustard can damage your eyes. Effects on the eye can include irritation, redness, and swelling of the lids.
- Throat irritation, sinus pain, and cough can develop after breathing in sulfur mustard. Larger exposures can damage the lungs.

## When will symptoms of sulfur mustard exposure appear?

- If you are exposed to sulfur mustard, there can be a delay before you feel symptoms. Symptoms normally appear within 4 to 8 hours. However, after a relatively small exposure symptoms can take up to 24 hours to develop.

## What medical treatment will I receive for sulfur mustard exposure?

- Medical staff can treat you with soothing lotions, eye drops, and pain medication. If infections develop, for example in damaged lungs, you can be provided antibiotics.

## What are GB and VX?

- GB and VX are similar to the insecticides malathion and parathion. They are odorless and colorless and are stored as liquids. GB is similar in consistency to water. VX has the consistency of lightweight motor oil.

## What are the effects of exposure to GB and VX vapor?

- Exposure to a small amount of vapor can result in pupils becoming smaller than normal, dim or blurred vision, eye pain, a runny nose, and shortness of breath. Symptoms can be seen alone or in combination.
- Moderate exposure can cause muscle weakness, nausea, vomiting, and diarrhea.
- Exposure to large amounts of vapor can cause interruption of breathing, muscle weakness, loss of consciousness, convulsions and death.

## How long will it take symptoms to appear after exposure to GB or VX vapor?

- Effects usually appear seconds to minutes after breathing nerve agent vapor.
- With exposure to very small amounts of vapor, smaller than normal pupils may be the only effect and may take an hour to appear.



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## **Chemical Warfare Agents (continued)**

### **What medical treatment will I receive for exposure to GB or VX?**

- You will not need treatment if smaller than normal pupils are your only symptom. However, if you are exposed to larger amounts and have a runny nose, difficulty breathing, or nausea and vomiting, then you can be given antidotes.
- Two antidotes are available to treat exposure to GB or VX. The antidotes are atropine and pralidoxime.

### **What to do**

- If a chemical agent attack occurs, authorities will instruct people to either seek shelter where they are and seal the premises (shelter-in-place), or evacuate immediately. Don't ventilate (air out) or leave your sealed shelter until you are told to do so.
- If you have symptoms of exposure, call 9-1-1 immediately and follow their instructions.
- Remember, avoiding chemical exposure should be your primary goal. Leaving your sheltered area to rescue or assist victims can lead to chemical exposures resulting in harmful effects. There is no assistance that the untrained can offer victims that would likely be of any value during a chemical attack.
- If you were outside before taking shelter or leaving the area and think you may have been exposed to a chemical agent, there are several things you can do. If you are in a sealed shelter, take off at least your outer clothes, put them in a plastic bag and seal the bag. If water is available in the shelter, wash or take a cool to warm (not hot) shower, using lots of soap and water. Do not put the soap in your eyes, just lots of water. If you leave the area, tell emergency responders or medical

staff at your destination that you may have been exposed. Tell the emergency responders about the sealed bag so that they can arrange for its safe removal after the emergency.

- If you have symptoms of exposure, call 9-1-1 immediately and follow their instructions.

### **How to shelter-in-place**

- Move or stay indoors.
- Close all windows and doors.
- Turn off ventilation systems (heating, air-conditioning, fireplace dampers, etc.).
- Go to the room with the fewest doors and windows.
- Dampen towels and place over the crack at the bottom of each door in the room.
- Cut plastic sheeting to fit over the windows and vents. Secure the sheeting with duct tape.
- Use duct tape around the doors.
- Turn on the radio.
- Don't let air in or out of your shelter.
- Stay in the room until authorities tell you it is safe to come out.



# Radioactive Materials

**What to do if radioactive materials are accidentally or intentionally released in our vicinity. Following these procedures will help you minimize any exposure to radiation.**

Dispersal of radioactive materials could occur from an explosive device packaged with radioactive materials. This is referred to as a Radiological Dispersal Device (an RDD or “dirty bomb”). The public impact comes from radioactive materials being expelled, carried by wind, and potentially contaminating people, buildings, vehicles, and even foods in a larger area. A typical RDD will not contain enough radioactive material to create an immediate life-threatening hazard. The hazard comes from extended exposure and the inhalation or ingestion of radioactive materials.

An attack on facilities that uses large quantities of radioactive materials could possibly release a significant amount of radioactive material. Washington State and the counties surrounding large sites, such as the commercial nuclear power plants, have established procedures in place to respond to incidents. Sheltering or evacuation would be ordered for a predetermined area, probably prior to the release of any radioactive material.

An attack on a facility that uses a much smaller amount, such as certain research, industrial, or medical facilities, would result in releases much smaller in scale. Life-threatening levels of exposure are not expected from these smaller types of events.

## Stay inside

- Shelter yourself from airborne radioactive particles by staying inside your home or office, unless instructed by civil authorities to do otherwise. Close the windows, turn off the ventilation system, and stay toward the center of the house or building. If there is a basement, go there. Once the initial blast is over, the continuing risk will be from airborne radioactivity, often referred to as a drifting radioactive “cloud,” and contamination on outside surfaces.

## Listen to the radio

- When you learn that a radiological event has occurred near you, tune a radio to your local emergency broadcasting network and listen for instructions. Federal, state and local agencies will be doing everything they can to keep you informed of any protective actions that should be taken. You should keep a battery-powered radio handy in case electrical power is out in your area. Paying careful attention to any instructions given will help you minimize your exposure to radiation.

## Follow instructions

- Your best way of avoiding exposure is to do what the experts advise. If told to evacuate after the radioactive cloud has passed or gone in another direction, do so promptly but safely. Take any essential items you may need for an extended absence, such as prescription medicines, clothing and personal grooming items. Listen for news of the location of the cloud. Even if it has already passed, radioactive contamination may have been deposited on the ground and experts will recommend the best paths to take out of the area.

## If you suspect you are contaminated

- If you feel you’ve been exposed to radioactive materials (for instance, if you were outside at the time of the event or if you have had to go outside for any reason since then), you should change into clean clothes. Place the potentially contaminated clothing in a plastic bag and seal the bag (take care not to squeeze the excess air out of the bag and into your face which potentially could cause internal contamination). Place the sealed bag in a room away from



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## **Radioactive Materials (continued)**

people. Take a lukewarm shower using plenty of soap and water to remove any contamination that may be on your skin. Cold water will close the pores of your skin trapping contamination inside; hot water will open the pores allowing contamination to enter. It is not necessary to scrub hard; you do not want to irritate the skin unnecessarily.

### **Seek help if needed**

- Special assistance centers are the best places to go for help; these will be set up as soon as possible. If this hasn't happened yet, go to a police or fire station located outside of the affected area. If you believe you were in the path of the cloud — or in the blast zone itself — tell assistance center staff. Medical evaluation can help determine the cause of symptoms, such as nausea, loss of appetite, reddening of the skin or diarrhea.

### **Watch what you eat**

- Avoid drinking fresh milk or eating garden fruit and vegetables from the affected area. Wait until the Department of Health announces that produce and dairy products are safe to eat and drink. Milk, fruit, and vegetables bought or harvested before the event (and stored indoors) are OK to eat as are canned and bagged food items. Be sure to rinse off the containers before opening.

# Anthrax



## What is anthrax?

- Anthrax is a rare disease caused by a bacterium, which is capable of forming spores that can survive in the environment for long periods of time. Anthrax most commonly occurs in animals, such as cattle, pigs, sheep and goats. Anthrax infection can occur in three forms: cutaneous (skin), inhalational (lung), and gastrointestinal (stomach and intestines). In an intentional exposure, such as a bioterrorism event, breathing in the spores is the most likely route of exposure that might lead to a serious infection.

## How is anthrax spread?

### What are the symptoms?

- You can get anthrax by handling infected animals or other materials containing anthrax spores, eating infected meat, or breathing in spores. The bacteria are resistant to drying and can remain alive for long periods of time. The disease is NOT passed from person to person. Symptoms depend on how a person is exposed to the disease, and usually occur within one to seven days after exposure, but can take as long as 60 days to develop.
- **Inhalational anthrax** (through the lungs) is the most serious type of anthrax and is caused by inhaling anthrax bacteria into the lungs. Initial symptoms may resemble those of flu or a common cold, such as fever, cough, headache, chills, weakness, difficulty breathing, and chest discomfort. After several days, the symptoms may progress to severe breathing problems and shock. This type of anthrax infection is often fatal if not treated promptly.
- **Cutaneous anthrax** (through cuts in the skin) is caused when anthrax bacteria make direct contact with skin that has a cut or break in it. Initial symptoms include an itchy bump. Later stage symptoms include a small blister, which evolves into a painless sore with a black center. Lymph glands in the infected area may also swell.

- **Gastrointestinal anthrax** (stomach and intestines) is caused by the ingestion of anthrax bacteria. It is characterized by an acute inflammation of the intestinal tract. Initial symptoms include nausea, vomiting, loss of appetite, and fever, followed by abdominal pain, vomiting of blood, and severe diarrhea.

## Recognizing possible anthrax contamination

- If you have symptoms, consult a health care provider. If you believe you have been intentionally exposed to anthrax, you should contact law enforcement officials immediately.
- If you receive a letter or package that may contain anthrax:
  - Set the package down gently and leave it undisturbed to avoid release of spores into the air.
  - Immediately wash your hands thoroughly with soap and warm water.
  - Call 9-1-1 to report the incident. Follow the instructions of the 9-1-1 operators until help arrives.
  - Remember: Do not handle the package further unless necessary.

## Treatment for anthrax

- Antibiotics can be used to prevent or treat an infection in persons exposed to anthrax. All forms of the disease need to be treated promptly. Since anthrax is not spread from person to person, there is no need to immunize or treat contacts of persons ill with anthrax, such as household members, friends, or coworkers, unless they also were exposed to the same source of infection. An anthrax vaccine also can prevent infection, but it is currently not available for the public. Use of antibiotics for the prevention or treatment of anthrax should only be done under the direction of your health care provider or local health department.



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# Smallpox



## What is smallpox?

- Smallpox is a severe viral infection caused by the variola virus. Smallpox infection was eliminated from the world in the late 1970s. The last human case occurred in 1978. However, because the security of the virus is uncertain, there is a remote risk that smallpox could be used as a weapon.
- Routine vaccination against smallpox in the United States ended in 1972, because the risk associated with the vaccine was greater than the risk of getting the disease. However, in 2003, some members of the military, public health and health care workforce were vaccinated against smallpox as part of bioterrorism preparedness.

## How is smallpox spread?

### What are the symptoms?

- Smallpox is extremely infectious and is spread from one person to another by infected saliva droplets. Exposure may come from face-to-face contact, airborne spread (coughing or sneezing), or through direct contact with contaminated materials. People with smallpox are most infectious during the first week of illness because that is when the largest amount of virus is present in saliva. However, some risk of transmission lasts until all scabs have fallen off.
- The incubation period for the disease ranges from about seven to 17 days following exposure. Initial symptoms include high fever, fatigue, headache, and backache. A characteristic rash, most prominent on the face, arms and legs, follows in two to three days. The rash starts with flat red lesions that evolve at the same rate. Lesions become pus-filled and begin to crust early in the second week. Scabs develop, and then separate and fall off after about three to four weeks. The majority of patients with smallpox recover, but death occurs in up to 30 percent of cases.

## Preventive measures

- If you have symptoms, consult a health care provider as soon as possible. There is no evidence of increased risk of smallpox outbreak or bioterrorism attack using smallpox, but the United States does maintain an emergency supply of smallpox vaccine. The vaccine is not currently available to the public because it presents a significant risk of severe side effects.

## Treatment for smallpox

- There is no proven treatment for smallpox, but research to evaluate new antiviral agents is ongoing. Patients with smallpox can benefit from supportive therapy (intravenous fluids, medicine to control fever or pain, etc.), and antibiotics for any secondary bacterial infections.
- If the vaccine is given to a person within four days of exposure to smallpox, it may lessen the severity of or possibly prevent illness. Vaccine against smallpox contains a live virus called vaccinia; it does not contain the smallpox virus.
- The vaccine is stored and distributed by the Centers for Disease Control and Prevention through the Strategic National Stockpile of pharmaceutical supplies. In the event smallpox is used as a weapon, the distribution of vaccine would be coordinated by the Centers for Disease Control and Prevention and the state and local departments of health.



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# Methamphetamine Labs

Methamphetamine, also known as “crank” or “speed,” is an addictive and powerful illegal drug. The manufacture of methamphetamine in illegal “meth labs” is particularly dangerous.

## What is an illegal lab?

An illegal meth or crank lab is one that is set up to produce the illegal drug methamphetamine. Meth labs have been found in many locations including houses, apartments, garages, motel units and vans. A number of dangerous chemicals including explosives, solvents, metals, salts, and corrosives are used to make methamphetamine. During the drug manufacturing process (cooking), additional dangerous compounds and by-products are produced. The fumes, vapors, and spillage associated with cooking can be toxic.

## Possible health effects

- The risk of injury from chemical exposure depends on the chemical itself, the concentration, the quantity, and the length and type of exposure. Chemicals may enter the body by being breathed, eaten, injected (by a contaminated needle or accidental skin prick), or absorbed by the skin.
- Exposure to the high levels of contaminants found in methamphetamine labs causes shortness of breath, cough, chest pain, dizziness, lack of coordination, chemical irritation, and burns to the skin, eyes, mouth and nose, and in severe cases, death.
- Even brief exposure can produce symptoms such as headache, nausea, dizziness, and fatigue or lethargy.
- **Solvents.** Exposure to solvents can irritate the skin, mucous membranes and respiratory tract, and harm the central nervous system. Solvents are also dangerous because they are flammable and can be explosive.
- **Waste and residues.** Chemical and methamphetamine residues can contaminate buildings, household furnishings and the environment. When unused portions of the chemicals and by-products are dumped on the ground or washed down sinks and toilets and

into streams, these toxic wastes can kill vegetation, ruin plumbing and septic tanks and contaminate groundwater. Methamphetamine production can leave residue on ceilings, walls, heating systems, household fixtures, and personal items.

## Occupying a former meth lab

- No one should enter a place that has been used as an illegal methamphetamine drug lab without appropriate personal protective equipment unless the area has been ventilated and decontaminated.
- No one should rent, purchase, or otherwise occupy a house or dwelling that has been used as an illegal drug lab until the property has been decontaminated using the best available technology.

## Reporting a suspected meth lab

If you observe suspicious activity indicating the presence of a meth lab, report it immediately to your local law enforcement or the Anonymous Meth Hotline at 1-888-609-6384. Signs that a meth lab may be in operation include:

- Windows that are always covered.
- Frequent visitors at all hours.
- Frequent visitors that stay for only 5-10 minutes.
- Chemical odors.
- Excessive garbage specific to making meth.

More information and educational resources concerning methamphetamine and meth labs can be found on the Washington State Department of Health's Clandestine Drug Lab Web site at [www.doh.wa.gov/ehp/ts/cdl.htm](http://www.doh.wa.gov/ehp/ts/cdl.htm)



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# Preparing Your Household for Emergencies

Government agencies will respond to community disasters, but the fact remains that citizens may be on their own for hours, even days, after disaster strikes. Citizens are advised to be prepared to take care of themselves for at least three days.

## **Before disaster strikes**

- Have water (preferably in plastic jugs) and canned or non-perishable food (and manual can opener) that does not require cooking.
- Learn first aid and CPR. Have a first aid kit and first aid manual and needed medicines for family members.
- Have blankets or sleeping bags, and plastic sheets or other materials to repair your home or to improvise shelter.
- Have a flashlight with extra bulbs and batteries.
- Have a battery-powered portable radio with extra batteries.
- Have a covered container for a toilet and extra toilet tissue.
- Have a fire extinguisher and know how to use it.
- Learn how to turn off the gas, power, and water in your home.

## **After the emergency or disaster is over**

- Use caution in entering damaged buildings and homes.
- Stay away from damaged electrical wires and wet appliances.
- Check food and water supplies for contamination.
- Notify your relatives that you are safe. However, don't tie up phone lines because they are needed for emergency calls.
- If government disaster assistance is available, the news media will announce where to go to apply.

## **During an emergency or disaster**

- Keep calm, take time to think, give assistance where needed.
- Turn on your radio for official information and instructions.
- Use the telephone only for emergency calls.
- If requested to evacuate, take your emergency supplies and go to a safe location or to a temporary shelter as directed by officials.

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# Información De Alistamiento En Caso De Emergencia

Las agencias gubernamentales responderán a los desastres de la comunidad, pero la realidad es que muchos individuos pueden que tengan que valerse por sí mismos por horas y aun días, después de que el desastre haya ocurrido. Se aconseja que todo individuo este preparado para cuidarse a sí mismo por lo menos por tres días.

## Antes De Que El Desastre Ocurra

- Mantenga agua (preferiblemente en envases plásticos) y alimentos enlatados o que no se echen a perder y que no haya que cocinar (un abre latas).
- Aprenda los primeros auxilios y resucitación cardio-pulmonar (CPR).
- Mantenga un botiquín de primeros auxilios con su manual, así como las medicinas necesitadas por los miembros de la familia.
- Tenga a la mano mantas, bolsas de dormir, laminas plásticas u otros materiales para reparar su hogar o improvisar un refugio.
- Conserve una linterna de pilas con bombillas y pilas adicionales.
- Mantenga una radio portátil de pilas y pilas adicionales.
- Mantenga un recipiente con tapa para usar como inodoro (retrete) y extra papel higiénico.
- Mantenga un extinguido de incendios y sepa como usarlo.
- Aprenda a cerrar la llave del gas y desconectar el circuito eléctrico y de agua en su casa.

## Durante Una Emergencia O Desastre

- Mantenga la calma, tome tiempo para pensar, de ayuda donde la necesiten.

- Encienda la radio para recibir información oficial e instrucciones.
- Use el teléfono solamente para llamadas de emergencia.
- Si se le pide evacuar su casa, tome sus provisiones o abastecimientos de emergencia y vaya a un lugar seguro o refugio temporal designado por las autoridades.

## Cuando Las Emergencia O Desastre Haya Pasado

- Use precaución al entrar en edificios u hogares dañados.
- Manténgase lejos de cordones o conexiones eléctricas y electrodomésticos mojados.
- Examine sus provisiones de alimentos y agua por contaminación.
- Notifique a sus parientes que usted esta en lugar seguro. (Sin embargo no demore demasiado en el teléfono si las líneas telefónicas aun son necesarias para llamadas de emergencia.)
- Si hay ayuda gubernamental disponible, los noticiarios difundirán la noticia del lugar donde debe presentar su solicitud.

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# Checklist of Disaster Emergency Supplies

Government agencies will respond to community disasters, but citizens may be on their own for hours, even days, after disaster strikes. You should be prepared to take care of yourself and your family for at least three days.

## Emergency survival kit

Store one of these at home, at work and at each child's school or daycare facility.

- Dry or canned food and drinking water for three days (for each person)
- Can opener
- First aid supplies and first aid book
- Copies of important documents (birth certificates, licenses, insurance policies, etc.)
- "Special needs" items for family members (infant formula, eye glasses, medications, etc.)
- A change of clothing
- Sleeping bag or blanket
- Battery powered radio or television
- Flashlight and extra batteries
- Whistle
- Waterproof matches
- Toys, books, puzzles, games
- Extra house keys and car keys
- List of contact names and phone numbers

## Additional items you can store at home for use during an emergency:

### Cooking supplies

- Barbecue, camp stove, chafing dish
- Fuel for cooking (charcoal, camp stove fuel, etc.)
- Plastic knives, forks, spoons
- Paper plates and cups
- Paper towels
- Heavy-duty aluminum foil

## Sanitation supplies

- Large plastic trash bags for trash, water protection
- Large trash cans
- Bar soap and liquid detergent
- Shampoo
- Toothpaste and toothbrushes
- Feminine and infant supplies
- Toilet paper
- Household bleach with no additives
- Newspaper — to wrap garbage and waste

## Comfort

- Sturdy shoes
- Gloves for clearing debris
- Tent

## Tools

- Ax, shovel, broom
- Crescent wrench for turning off gas
- Screwdriver, pliers, hammer
- Coil of one-half inch rope
- Plastic tape and sheeting
- Knife or razor blades
- Garden hose for siphoning and fire fighting



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# Lista de Verificación de Suministros de Emergencia en caso de Desastre

Las agencias gubernamentales responderán a desastres en la comunidad, pero los ciudadanos podrían quedar aislados durante horas, incluso días, después de que suceda un desastre. Usted debe estar preparado para cuidarse y cuidar a su familia por lo menos tres días.

## Equipo de supervivencia de emergencia

Guarde uno de estos en su casa, el trabajo, la escuela y en el establecimiento de guardería de cada niño.

- Alimentos secos o en conserva y agua potable para tres días (para cada persona)
- Abridor de latas
- Suministros de medicamentos de primeros auxilios y manual de primeros auxilios
- Copias de documentos importantes (certificados de nacimiento, licencias, pólizas de seguro, etc.)
- Artículos de “necesidades especiales” para los miembros familiares (fórmula infantil, gafas, medicamentos, etc.)
- Un cambio de ropa
- Bolsa para dormir o frazada
- Radio o televisión a batería
- Linterna y baterías extra
- Pito de silbar
- Fósforos impermeables
- Juguetes, libros, rompecabezas, juegos
- Llaves extra para la casa y el automóvil
- Lista de nombres de contacto y números de teléfono

## Artículos adicionales que usted puede guardar en su casa para uso durante una emergencia

### Suministros de cocina

- Parrilla, estufa de campamento, calentaplatos
- Combustible para cocinar (carbón de leña, combustible para estufa de campamento, etc.)

- Cucharas, cuchillos y tenedores plásticos
- Platos y tazas de papel
- Toallas de papel
- Papel de aluminio grueso

### Suministros de higiene

- Bolsas grandes de plástico para la basura, protección del agua
- Cubos de basura grandes
- Barra de jabón y detergente líquido
- Champú
- Pasta dentífrica y cepillos de dientes
- Suministros femeninos y para niños
- Papel higiénico
- Detergente del hogar sin aditivos
- Periódicos — para envolver basura y desechos

### Comodidad

- Zapatos fuertes
- Guantes para limpiar escombros
- Tienda de campaña (carpa)

### Herramientas

- Hacha, pala, escoba
- Llave de tuerca para cerrar el gas
- Destornillador, alicates, martillo
- Rollo de soga (cuerda) de ½ pulgada
- Rollos de plástico y cinta para aislar
- Cuchillo u hojas de navaja para afeitar
- Manguera de jardín para sacar con sifón y apagar incendios



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# Power Outages

**Everyone experiences power interruptions from time to time. Many of these outages come at times of weather extremes or accompany various disasters.**

**When the power is out, safety becomes a major concern. The following information is meant to help you when the lights go out.**

- Register life-sustaining and medical equipment with your utility company.
- Have an alternate heat source and supply of fuel.
- Consider purchasing a generator, especially if someone in the house requires life-sustaining equipment that runs on electricity.
- When installing generators, follow the manufacturer's instructions very carefully.
- If your house is the only one without power, check your fuse box or circuit breaker panel. Turn off appliances before replacing fuses or resetting circuits.
- If power is out in the neighborhood, disconnect all electrical heaters and appliances to reduce the initial demand and protect the motors from possible low voltage damage.
- Unplug computers and other voltage-sensitive equipment to protect them against possible surges when the power is restored.
- Conserve water, especially if you are on a well.
- Keep your refrigerator and freezer doors closed. If the door remains closed, a fully loaded freezer can keep foods frozen for two days.
- Never use a charcoal barbeque inside the home.
- If you use candles for light, keep in mind they can cause a fire. It's far better to use battery-operated flashlights or glow sticks for alternative lighting.
- If you use a kerosene heater, gas lantern or stove inside the house, maintain ventilation to avoid a build up of toxic fumes.
- If your power is out, leave a light switch in the on position to alert you when services are restored.
- If you own an electric garage door opener, learn how to open the door without power.
- Prepare a power outage kit, and make it a part of your disaster preparedness kit. Consider having light sticks, flashlights, a battery-powered radio with extra batteries, and a wind-up clock as a part of the kit.
- Have a corded telephone available; remember that cordless phones will not work when the power is out.

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# Using a Generator During Power Outages

When purchasing a generator make sure you get one listed with the Underwriter's Laboratory (UL) or Factory Mutual (FM).

■  
*This technical sheet was prepared using materials from the American Red Cross and the National Fire Protection Association.*

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- **Read the labels** on lighting, appliances, and equipment you plan to connect to the generator to determine the amount of power that will be needed to operate the equipment. For lighting, the power of the light bulb indicates the power needed. Appliances and equipment usually have labels indicating power requirements on them. Choose a generator that produces more power than will be drawn by the combination of lighting, appliances, and equipment you plan to connect to the generator, including the initial surge when it is turned on. If your equipment draws more power than the generator can produce, you may blow a fuse on the generator or damage the connected equipment.
- **Follow the directions** supplied with your generator. Never use portable generators indoors, including inside a garage. Adequate ventilation is necessary when running the generator. Proper refueling measures, outlined in the owner's manual, must be carefully followed. Make sure you have properly working carbon monoxide (CO) alarms inside your home.
- **Let your generator cool down** before refueling. You must store extra generator fuel in an approved safety can. Store fuel for the generator out of doors in a locked shed or other protected area. Do not store fuel in a garage, basement, or anywhere inside a home, as vapors can be released that may cause illness and are a potential fire or explosion hazard.
- **Connect the equipment** you want to power directly to the outlets on the generator. Do not hook up a generator to your home's electrical service. Home-use (non-industrial) generators do not supply enough amperage to supply sufficient power for today's homes (that is, to run a furnace, lighting, appliances, and other electronic equipment). Unless your home's power supply was installed with a disconnect to the main power feeding lines, power you put into your home from a generator could "backfeed" into the main line and cause problems for the electrical utility company, your neighbors, or yourself. "Backfeeding" is supplying electrical power from a generator at the residence into the incoming utility lines. This occurs when the necessary equipment used to isolate the generator from the incoming power lines is not installed.
- **The 1999 National Electrical Code (NEC)**, published by the National Fire Protection Association, is a nationally recognized standard for safe electrical installations. The NEC does permit an interface between the normal power source (generally the electric utility) and an alternate power source (such as a standby or portable generator) provided that the proper transfer equipment that prevents "backfeeding" is used. Simply connecting a cord from the generator to a point on the permanent wiring system and "backfeeding" power is an unsafe method to supply a building during a utility outage.
- **Improper connection methods** not only endanger the building occupants, but pose a serious hazard to electric utility workers as well. There are a number of products available that will provide either an automatic or manual transfer between two power sources in a manner prescribed by the NEC. When selecting a product for this function, it should be one that has been evaluated for safe performance by a nationally recognized testing organization such as Underwriters Laboratories. The product must be installed according to the NEC, all applicable state and local codes, and the manufacturer's instructions. Homeowners should only attempt to install such products if they have a thorough knowledge of safe electrical installation practices for this type of equipment. Otherwise a qualified electrician should be contacted.



It is best to learn how to turn off household utilities before disaster strikes.

# Turning Off the Utilities

When disaster strikes, it often affects one or more of the utility systems in your home. Therefore, it is important to know where the main controls are located and when and how to turn them off.

## Electricity

- Locate your main electrical switch or fuse panel, and learn how to turn off the electrical power system.
- If a generator is used as a backup power supply, remember to follow the manufacturer's instructions. Connect lights and appliances directly to the generator and not to the electrical system.

## Water

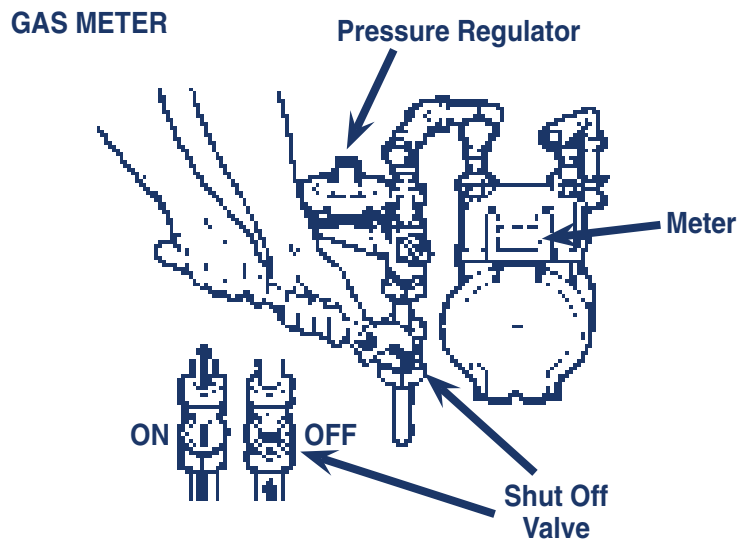
- Turn off water at the main meter or at the water main leading into the house. This will prevent contaminated water from entering your water heater and plumbing.
- Turn off the valve — turn to the right. This will require a special valve wrench, available from a hardware store. Make sure you have the tool readily available.

## Sewer system

- Make sure your sewer system is functioning properly before using it. This will prevent the contamination of your home and possibly the drinking water supply.

## Gas meter (illustration below)

- Locate your gas meter and valve.
- Have a wrench immediately available for turning off the gas supply.
- If you smell natural gas, evacuate immediately. Do not use matches, lighters, open flame appliances, or operate electrical switches. Sparks could ignite gas causing an explosion.
- Shut off gas ONLY if you smell gas or hear a hissing noise. Contact the gas company to turn the gas back on.



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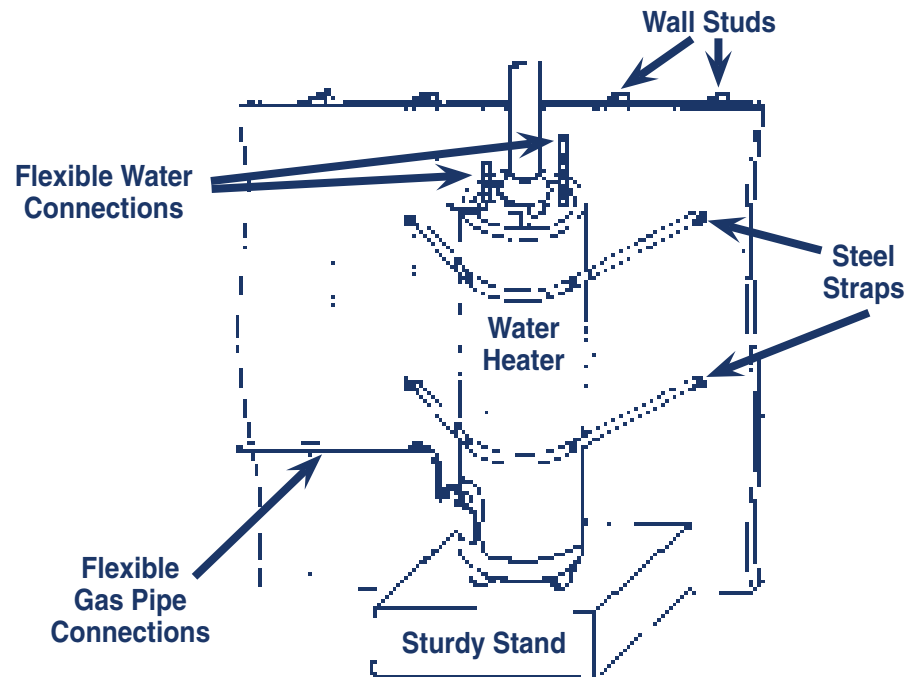


Secure your water heater to minimize damage during a disaster.

# How to Secure Your Water Heater

## Securing a water heater

- Mark your water heater at the front center, about one-third of the way down from the top and approximately one-third of the way up from the bottom.
- Ensure that the bottom mark is at least 4 inches above the water controls.
- Secure the water heater with two 16- to 20-gauge, pre-drilled steel straps at the points you've marked (see diagram).
- If you place the water heater on a pedestal, you must secure the pedestal to the wall or floor to keep it from moving out from under the water heater during an earthquake.
- For more information on securing your water heater, contact your local emergency management office or utility.



## Getting water from a water heater

- The water heater, if strapped properly, can be used as a backup source of drinking water in addition to the water you have already stored for emergencies.
- To get water out of your water heater when the water is turned off, you will need to turn off the gas or electric supply to the heater.
- Open a faucet located in the highest point of your home and then open the faucet at the bottom of the water heater. This allows the water to gravity-feed from the tank.
- The water that first comes from the tank may be full of rust and other deposits. This is normal for a water heater that has been in a home for a few years. Discard the discolored water. When the water becomes clear, it should be safe to drink.
- If there is any question as to water purity — purify it.

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# Purifying Household Water

The treatments described below work only in situations where the water is unsafe because of the presence of bacteria. If you suspect the water is unsafe because of chemicals, oils, poisonous substances, sewage, etc., do not use the water for drinking.

## Storing water safely

- Store one gallon of water per person per day.
- Store at least a three day supply of water per person.
- Collect the water from a safe supply,
- Store water in thoroughly washed plastic, fiberglass, or metal containers that are lined with enamel.
- Never reuse a container that contained toxic materials such as pesticides, solvents, chemicals, oil, antifreeze, etc.
- Plastic containers such as soft drink bottles are best. You can also purchase food-grade plastic buckets or drums.
- Seal water containers tightly, label with date, and store in a cool, dark place.
- Replace water every six months.

## Water purification

There are two primary ways of treating water: boiling and adding bleach. If the supply has been made unsafe because of untreated surface water (from floods, streams or lakes), boiling is the best method.

- Cloudy water should be filtered before boiling or adding bleach.

- Filter water using coffee filters, paper towels, cheese cloth, or a cotton plug in a funnel.

## Boiling

- Boiling is the safest method of purifying water.
- Bring the water to a rolling boil for 3-5 minutes.
- Let the water cool before drinking.

## Purifying by adding liquid chlorine bleach

- If boiling is not possible, water can be made safe for drinking by treating with liquid household chlorine bleach, such as Clorox, Purex, etc. Household bleach is typically between 5 percent and 6 percent chlorine. Avoid using bleaches that contain perfumes, dyes, and other additives. Be sure to read the label.
- Place the water (filtered, if necessary) in a clean container. Add the amount of bleach according to the table below. Mix thoroughly and allow to stand for at least 30 minutes before using (60 minutes if the water is cloudy or very cold).
- Purifying tablets or chemicals designed for use when camping or backpacking can also be an effective way to treat water. Always follow the directions on the package.

Treating Water with a 5-6 Percent Liquid Chlorine Bleach Solution		
Volume of Water to be Treated	Treating Clear Water: Bleach Solution to Add	Treating Cloudy, Very Cold, or Surface Water: Bleach Solution to Add
1 quart/1 liter	3 drops	5 drops
1/2 gallon/2 quarts/2 liters	5 drops	10 drops or 1/8 tsp
1 gallon	10 drops or 1/8 tsp	20 drops or 1/4 tsp
5 gallons	50 drops or 2.5 ml or 1/2 tsp	5 ml or 1 tsp
10 gallons	5 ml or 1 tsp	10 ml or 2 tsp

tsp = teaspoon; ml = milliliter



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# Household Fires

## Protecting against fires

- Make sure your house number is clearly visible and fire trucks can reach your home.
- Install smoke detectors outside all sleeping areas or in each bedroom and on every level of your home, including the basement.
- Install A-B-C type fire extinguishers; teach family members how to use them.
- Check smoke detectors on a regular basis and replace the batteries twice yearly.
- Consider installing a residential sprinkler system.
- Know the location of all exits. If you live in an apartment, count the number of doorways between your apartment and the two nearest exits. Be familiar with all exits, including the windows.
- Plan your escape. Know two ways out of every room in case smoke or flames block your primary exit.
- Choose a meeting place outside the home, and be sure all family members are accounted for. If someone is missing, let the fire department know. Do not go back inside. Practice your plan with all family members.
- Escape plans and exit drills will help ensure that you can get out quickly when there is no time for mistakes.
- Sleep with your bedroom door closed.
- Keep folding/chain style ladders stored in each upstairs bedroom.
- Mark bedroom windows outside of the building of children or others who may not be able to self-rescue.
- Learn how to turn off gas and electricity in an emergency.

## If fire strikes

- If there is a fire — evacuate and call 9-1-1 from a neighbor's house.
- Never use water on an electrical fire.
- If caught in smoke — drop to your hands and knees and crawl; breathe shallowly through your nose and use your blouse, shirt or jacket as a filter.
- If you are forced to advance through flames, hold your breath, move quickly, cover your head and hair, keep your head down and close your eyes as much as possible.
- Smother oil and grease fires in the kitchen with baking soda or salt, or put a lid over the flame if it is burning in a pan.
- If your clothes catch fire, “Stop, Drop and Roll” until the fire is out.
- If you are in a room and cannot escape, leave the door closed, stay low to the floor, and hang a white or light-colored sheet outside the window.

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# Preparing for Winter Storms

Winter storms can range from moderate snow over a few hours to blizzard conditions with blinding, wind-driven snow or freezing rain that lasts several days. The time to prepare is before the snow falls and ice forms.

The first step is to listen for “watch” and “warning” alerts from the National Weather Service.

## A winter storm watch

A storm watch indicates that severe winter weather may affect your area.

## A winter storm warning

A winter storm warning indicates that severe winter weather is in your area or is expected imminently.

## Preparing for winter storms

- Tune your weather radio, AM/FM radio, or television to hear the latest updates and information.
- Have appropriate cold weather clothing available.
- If you have a kerosene heater, refuel your heater outside and remember to keep it at least three feet from flammable objects.
- Have rock salt and sand on hand for traction on ice.
- Fill your gas tank before the snow starts falling.
- Keep an emergency auto kit readily available.
- Make sure your fireplace functions properly.

## During a winter storm

- Wear several layers of loose fitting, light weight, warm clothing rather than one layer of heavy clothing.

- Wear mittens rather than gloves.
- Wear a warm, woolen cap on your head.
- Conserve on fuel by reducing the internal temperature in your home.
- Do not overexert yourself if shoveling snow.
- Watch for signs of frostbite and hypothermia.
- Do not use charcoal or gas grills to cook or heat indoors.

## If in your vehicle

- Stay on the main roads.
- If you must stop your vehicle, remain inside the vehicle. Use a bright distress flag or your hazard lights to draw attention to your vehicle.
- If trapped in a blizzard, clear your tail pipe and run your engine and heater for 10 minutes every hour. Open your window slightly.
- During night hours, keep the dome light on in the car so rescue crews can see your vehicle.
- Make sure your vehicle disaster preparedness kit is well stocked and readily available.

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# Windstorms

Each fall and winter season, several low pressure systems impact the Pacific Northwest, producing strong winds to 60 mph. On Columbus Day, October 12, 1962, the strongest non-tropical windstorm ever to hit the lower 48 states struck the Pacific coast. It claimed 46 lives, injured hundreds more, and knocked power out for several million people. By taking action now, you can save lives and reduce the damage caused by windstorms and other weather-related hazards.

## What to do before a windstorm

- Contact your local emergency management office or the National Weather Service to find out what types of storms are most likely to occur in your community.
- Assemble a disaster supply kit.
- Contact vendors to know the proper use of home generators.
- Find out who in your area might need special assistance, specifically the elderly, disabled, and non-English speaking neighbors.
- Check with your veterinarian for animal care instructions in an emergency situation.
- If you live on a coastal or inland shoreline, be familiar with evacuation routes.
- Know what emergency plans are in place at your workplace, school and daycare center.
- Conduct a home safety evaluation, including the garage door, and nearby trees.
- If you have an electric garage door opener, locate the manual override.

## What to do during a windstorm

- Don't panic. Take quick action to protect yourself and help others.
- Turn off the stove if you're cooking when the power goes out, and turn off natural gas appliances.
- If you are indoors, move away from windows or objects that could fall, and go to lower floors in multi-story homes.

- If you are outdoors, move into a building and avoid downed electric power lines, utility poles and trees.
- If you are driving, pull off the road and stop away from trees. If possible, walk into a safe building. Avoid overpasses, power lines and other hazards.
- Listen to your radio for emergency instructions.

## What to do after a windstorm

- Check yourself and those around you for injuries.
- Evacuate damaged buildings. Do not re-enter until declared safe by authorities.
- Call 9-1-1 only to report a life threatening emergency.
- If you smell gas or hear a hissing sound indoors — open windows and leave the building. Turn off the gas source and call your gas company. Do not use matches, candles, open flames or electric switches indoors.
- If the power goes out, keep refrigerator and freezer doors closed to keep food frozen for up to two days.
- Provide assistance to your neighbors, especially the elderly or disabled.
- Try to make contact with your out-of-area phone contact, but avoid making local telephone calls.
- Monitor your portable or weather radio for instructions or an official "all clear" notice. Radio stations will broadcast what to do, the location of emergency shelters, medical aid stations, and the extent of damage.

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# Floods

**Floods are the most common and widespread of all natural disasters. Remember that the sheer force of just six inches of swiftly moving water can knock people off their feet. Cars are easily swept away in just two feet of water.**

Know the difference between a “flood watch” and a “flood warning.”

## A flood watch

A flood watch is issued by the National Weather Service when flooding is possible within the designated watch area. Be alert!

## A flood warning

A flood warning is issued when flooding has been reported or is imminent — take necessary precautions.

## What to do before a flood

- Purchase flood insurance.
- Listen to National Oceanic and Atmospheric Administration (NOAA) Weather Radio for current information.
- Keep your car filled with gas.
- Plan for evacuation. Know where you are going and how to get there.
- Take steps to flood-proof your home. Call your local building department or office of emergency management for information.
- Keep all insurance policies and your household inventory in a safe place.
- Take photos or a videotape of your belongings in the home.

## What to do during a flood

- Do NOT try to walk or drive through flooded areas.
- Stay away from moving water. Moving water six inches deep can sweep you off your feet.
- Stay away from disaster areas unless authorities ask for volunteers.
- Stay away from downed power lines.
- Be aware of areas where flood waters may have receded and may have weakened road surfaces.
- Don't throw damaged goods away until an official inventory has been taken.
- Throw away all food that has come in contact with flood waters.
- Wash your hands frequently with soap and clean water if you come in contact with flood waters.

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# Landslides and Mud Flows

Landslides and mudflows usually strike without warning. The force of rocks, soil, or other debris moving down a slope can devastate anything in its path.

Take the following steps to be ready.

## Before a landslide

- Get a ground assessment of your property.
- Your county geologist or county planning department may have specific information on areas vulnerable to land sliding. Consult a professional geotechnical expert for opinions and advice on landslide problems and on corrective measures you can take.

## Insurance

- Mudflow is covered by flood insurance policies from the National Flood Insurance Program. Flood insurance can be purchased through a local insurance agency.

## Minimize home hazards

- Plant ground cover on slopes to stabilize the land, and build retaining walls.
- In mudflow areas, build channels or deflection walls to direct the flow around buildings.
- Remember: If you build walls to divert debris flow and the flow lands on a neighbor's property, you may be liable for damages.

## Make evacuation plans

- Plan at least two evacuation routes since roads may become blocked or closed.
- In case family members are separated from one another during a landslide or mudflow (that is 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-state relative or friend to serve as the "out-of-area" contact. After a disaster it's often easier to call long distance than to make local calls. Make sure everyone knows the name, address and phone number of the contact person.

## Learn to recognize the landslide warning signs

- Doors or windows stick or jam for the first time.
- New cracks appear in plaster, tile, brick or foundations.
- Outside walls, walks, or stairs begin pulling away from the building.
- Slowly developing, widening cracks appear on the ground or on paved areas such as streets or driveways.
- Underground utility lines break.
- Bulging ground appears at the base of a slope.
- Water breaks through the ground surface in new locations.
- Fences, retaining walls, utility poles, or trees tilt or move.
- You hear a faint rumbling sound that increases in volume as the landslide nears. The ground slopes downward in one specific direction and may begin shifting in that direction under your feet.

## Sinkholes

- A sinkhole occurs when groundwater dissolves a vulnerable land surface, such as limestone, causing the land surface to collapse from a lack of support.

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*Continued.*

## **Landslides and Mud Flows (continued)**

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### **During a landslide:**

#### **If inside a building**

- Stay inside.
- Take cover under a desk, table, or other piece of sturdy furniture.

#### **If outdoors:**

- Try to get out of the path of the landslide or mudflow.
- Run to the nearest high ground in a direction away from the path.
- If rocks and other debris are approaching, run for the nearest shelter such as a group of trees or a building.
- If escape is not possible, curl into a tight ball and protect your head.

#### **After a landslide**

- Remember that flooding may occur after a mudflow or a landslide.
- Stay away from the slide area. There may be danger of additional slides.
- Check for injured and trapped persons near the slide area. Give first aid if trained.
- Remember to help your neighbors who may require special assistance – infants, elderly people, and people with disabilities.
- Listen to a battery-operated radio or television for the latest emergency information.
- Check for damaged utility lines. Report any damage to the utility company.
- Check the building foundation, chimney, and surrounding land for damage.
- Replant damaged ground as soon as possible since erosion caused by loss of ground cover can lead to flash flooding.
- Seek the advice of geotechnical experts for evaluating landslide hazards or designing corrective techniques to reduce landslide risk.

### **Prevention tips**

- Investing in preventive steps now, such as planting ground cover (low growing plants) on slopes, or installing flexible pipe fitting to avoid gas or water leaks, will help reduce the impact of landslides and mudflows in the future. For more information on prevention, contact your local emergency management office.



# Earthquakes

Washington is earthquake country.  
When the ground starts to shake, “Drop, Cover and Hold.”

## Indoors:

- When you feel an earthquake, **DROP** and **COVER** under a desk or sturdy table. Stay away from windows, bookcases, file cabinets, heavy mirrors, hanging plants and other objects that could fall. **HOLD** on to the desk or table. If it moves, move with it. Do not run — stay where you are and “Drop, Cover and Hold.”

## Kitchen:

- Move away from the refrigerator, stove and overhead cabinets. **Drop, Cover and Hold** under a table or near an inside wall. Take time NOW to anchor appliances and install security latches on cabinet doors to reduce earthquake hazards.

## Outdoors:

- If you are outdoors, move to a clear area, away from trees, signs, buildings, or downed electrical wires and poles.

## Downtown area:

- If you are on a sidewalk near a tall building, get into a building’s doorway or into a building’s lobby to protect yourself from falling bricks, glass and other debris.

## Crowded store or public place:

- DO NOT rush for the exits. Move away from display shelves holding objects that could fall on you, and **Drop, Cover and Hold**.

## Driving:

- If you are driving, slowly pull over to the side of the road and stop. Avoid overpasses, power lines, and other hazards. Stay inside the vehicle until the shaking stops.

## Wheelchair:

- If you are in a wheelchair, stay in it. Move to safe cover if possible (this is the one time you might use a doorway), lock your wheels, and protect your head with your arms.

## Theater or stadium:

- If you are in a theater or stadium, stay in your seat, protect your head with your arms or get under the seat if possible. Do not attempt to leave until the shaking stops.

## After the earthquake:

- Check yourself and those around you for injuries.
- Be prepared for aftershocks.
- Use the phone only to report a life threatening emergency.
- If you smell gas or hear a hissing sound — open a window and leave the building. Shut off the main gas valve outside.
- Try to make contact with your out-of-area phone contact and continue to monitor your radio.

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# Volcanoes

Volcanoes generate a wide variety of phenomena that can alter the earth's surface and atmosphere, endangering people and property.

Volcanic dangers include not only an eruption of a mountain and associated lava flows, but also ashfall and debris flows. If you are near a mountain range, be familiar with the following.

## Before a volcanic eruption:

- Plan ahead. Have emergency supplies, food and water stored.
- Plan an evacuation route away from rivers or streams that may carry mud or debris flow.
- Keep a battery operated radio available at all times.
- If there is an eruption predicted, monitor the radio, TV or National Oceanic and Atmospheric Administration (NOAA) Weather Radio for evacuation information.
- Follow the advice given by the authorities.

## After a volcanic eruption:

- Evacuate if advised to do so.
- Be prepared to stay indoors and avoid downwind areas if ashfall is predicted.
- Do not approach the eruption area.
- Be aware of stream and river channels when evacuating.
- Move toward higher ground if mudflows are approaching.

## Be prepared for ashfall generated from volcanoes:

- Have dust masks available.
- Close doors, windows and dampers. Place damp towels at door thresholds and other draft sources.
- Put stoppers in tops of your drainpipes.
- Protect dust-sensitive electronics.
- Keep roofs free of ash in excess of 4 inches.
- Remove outdoor clothing before entering a building.
- Wash vegetables from the garden before eating.
- If ash is in the water, let it settle before drinking.
- Use a battery-operated radio to receive information.
- Keep children and pets indoors.
- Minimize travel — ash may be harmful to your vehicle.
- Frequently change oil and air filters in your automobile.

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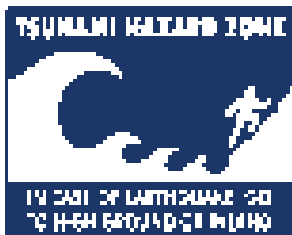


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# Tsunamis

A tsunami is a series of destructive ocean waves affecting shorelines. Tsunamis are usually generated by earthquakes. Tsunamis may also be caused by underwater landslides, or underwater volcanic eruptions. Tsunami waves are destructive and could rise as high as 100 feet or more. Tsunamis are a threat to the coast of Washington.

## The National Oceanic and Atmospheric Administration (NOAA)

NOAA has warning centers located in Hawaii and Alaska that can issue a tsunami warning within 15 minutes after an earthquake. This provides an effective warning for distant-source tsunamis.

### A tsunami watch

A watch reports on conditions that may generate a tsunami.

- Turn on your radio.
- Listen to your radio, NOAA Weather Radio, or TV for updates on the watch.
- Know well in advance what your safest evacuation route will be.

### A tsunami warning

A warning reports that a tsunami has been generated.

- Keep your radio on.
- Evacuate coastal areas immediately.
- Evacuate to higher ground or to upper levels of reinforced buildings.
- Continue to monitor your local radio or NOAA Weather Radio for further information and instructions.
- Wait for the “All Clear” before you return to the beach or to your home.

## Coastal evacuation signs

- Tsunami evacuation routes were developed to assist coastal residents and visitors find safer locations in case of an earthquake and tsunami. Evacuation signs have been placed along coastal roadways to indicate the direction inland or to higher ground. In some places, there may be more than one direction available to reach safer areas. These routes may be marked with several signs showing additional options for evacuation. You will need to know the evacuation routes for your area.



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