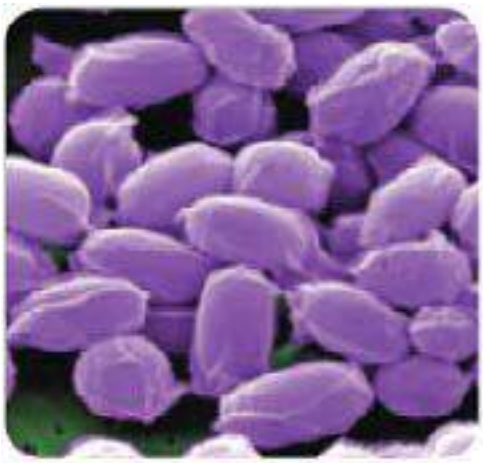
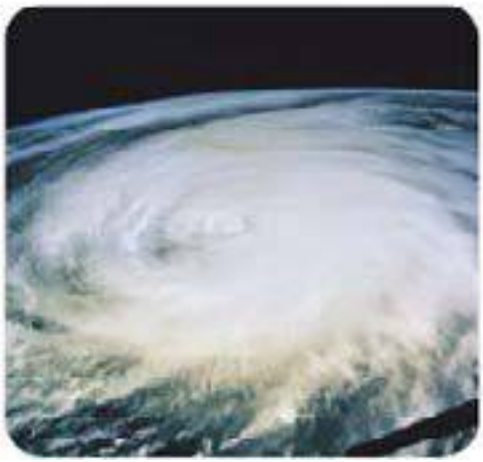
All-Hazards Preparedness Guide








Centers for Disease Control and Prevention
Office of Public Health Preparedness and Response

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PHPR All-Hazards Preparedness Guide

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Introduction

Public Health Emergencies Happen

For over 60 years, the Centers for Disease Control and Prevention (CDC) has been dedicated to protecting health and promoting quality of life through the prevention and control of disease, injury, and disability. Because of its unique abilities to respond to infectious, occupational, or environmental outbreaks or events, CDC also plays a pivotal role in preparing our nation for all types of public health emergencies.

CDC's Office of Public Health Preparedness and Response (PHPR) leads the agency's preparedness and response activities by providing strategic direction, support, and coordination for activities across CDC as well as with local, state, tribal, national, territorial, and international public health partners. CDC also helps these partners recover and restore public health functions after the initial response.

Being prepared to prevent, respond to, and recover rapidly from public health threats can save lives and protect the health and safety of the public. Though some people feel it is impossible to be prepared for unexpected events, the truth is that taking preparedness actions helps people deal with hazards of all types much more effectively when they do occur.

By reading this guide, you have taken the first step in securing your preparedness. You will learn that emergency preparedness requires attention not just to specific types of hazards but also to steps that increase preparedness for any type of hazard.

Office of Public Health Preparedness and Response

About Us

The Office of Public Health Preparedness and Response (PHPR) has primary oversight and responsibility for all programs that comprise CDC's public health preparedness and response portfolio. Through an all-hazards approach to preparedness — focusing on threats from natural, biological, chemical, and radiological events — PHPR helps the nation prepare for and respond to urgent threats to the public's health. PHPR carries out its mission by emphasizing accountability through performance, progress through public health science, and collaboration through partnerships.

Mission

Strengthen and support the nation's health security to save lives and protect against public health threats.

Vision

Peoples' Health Protected—Public Health Secured

Figure 1: All-hazards approach maximizes available resources.

Three Steps to All-Hazards Preparedness

Get a Kit

By gathering supplies for your all-hazards supply kit, you will be better prepared to provide for you and your loved ones in the event of a public health emergency. Take a moment to gather the items listed on the All-Hazards Supply Kit Checklist provided on page 7 and store them in a waterproof bin.

Make a Plan

You and your loved ones may not be together when an emergency strikes, so take the time now to plan how you will contact one another.

Be Informed

Being informed means staying up-to-date on the most current information available, such as how to shelter-in-place, information for those with special needs, and preparedness information for each type of hazard.

Get a Kit

By gathering supplies for your all-hazards supply kit, you will be better prepared to provide for you and your loved ones when a public health emergency occurs. Take a moment to gather the items listed on the All-Hazards Supply Kit Checklist provided on the next page and store them in a waterproof bin.

Additional Resources

- **CDC Emergency Preparedness and You: Get a Kit**
  Please visit CDC's site (http://emergency.cdc.gov/preparedness/kit/disasters/) to learn more about how you can assemble an all-hazards supply kit.
- **Contact Your Local American Red Cross Chapter**
  Please visit the American Red Cross' site (http://www.redcross.org/where/where.html) to find your local chapter.
- **FEMA: Ready.gov**
  FEMA's website (http://www.ready.gov/) has additional information on how to prepare for an emergency.

All-Hazards Supply Kit Checklist

Assemble the following items to create kits for use at home, the office, and/or at school:

- ☐ Water – one gallon per person, per day (three day supply for evacuation, two week supply for home)
- ☐ Food – non-perishable, easy to prepare items (three day supply for evacuation, two week supply for home)
- ☐ Flashlight
- ☐ Battery — powered or hand— crank radio (NOAA Weather Radio, if possible) and extra batteries
- ☐ First aid supplies (whistle, antibiotic ointment, bandages, face masks, gloves) and reference book
- ☐ Medications (seven day supply) and medicinal dispensers if necessary
- ☐ Multi¬purpose supplies (wrench, pliers, plastic sheet, duct tape, scissors, matches)
- ☐ Sanitation/personal hygiene items and bleach
- ☐ Copies of personal documents (medication list and pertinent medical information, proof of address, deed/lease to home, passports, birth certificates, insurance policies)
- ☐ Cell phone with chargers
- ☐ Emergency Disaster Plan (emergency contact information)
- ☐ Extra cash
- ☐ Emergency blanket, extra clothes, sleeping bag (at least one for each person)
- ☐ Tools, map(s) of the area, and other items to meet your unique family needs

Consider the needs of all loved ones and add supplies to your kit as necessary. Suggested items to help meet additional needs are:

- ☐ Specific medical supplies (hearing aids/extra batteries, glasses, contact lenses, syringes, cane)
- ☐ Infant supplies (bottles, formula, baby food, diapers)
- ☐ Games and activities for children
- ☐ Pet supplies (collar, leash, ID, food, carrier, bowl)
- ☐ Extra set of car keys and house keys

Examples of Non-Perishable Foods

Within six months, use:
- Boxed potatoes
- Dried fruit
- Dry, crisp crackers
- Powdered milk

Within one year, use:
- Canned, condensed meat and vegetable soups
- Canned fruits, fruit juices and vegetables
- Hard candy and canned nuts
- Jelly
- Peanut butter
- Ready-to-eat cereals and uncooked instant cereals
- Vitamins

In proper containers and conditions, the following can be stored indefinitely:
- Baking powder
- Bouillon products
- Dried corn
- Dry pasta
- Instant coffee, tea and cocoa
- Soft drinks
- Vegetable oils
- Salt
- Soybeans
- Wheat (for bread making)
- White rice

Tip: In an emergency, drink at least 2 quarts of water a day, 3 to 4 quarts a day if you are in a hot climate, pregnant, sick, or a child. If supplies run low, do not ration water. Drink the amount you need today and look for more tomorrow. Don't risk dehydration. Emergency assistance should be available within a few days at most.

If a disaster catches you without a stored supply of clean water, you can use the water found:

Inside your home
- Your hot-water tank
- Pipes and faucets
- Ice cubes

Outside your home
- Rainwater
- Visibly moving streams, rivers, and other moving bodies of water
- Ponds and lakes
- Natural springs

Make a Plan

You and your loved ones may not be together when an emergency strikes, so take the time now to plan how you will contact one another.

Before you complete your all-hazards communication plan, discuss the following steps with your loved ones:

- Identify the types of emergencies most likely to happen in your area.
- Pick two meeting places
- Right outside your home in case of a sudden emergency, like a fire.
- Outside your neighborhood in case you can't return home.
- Plan your evacuation route.
- Have a plan for your pets and service animals.
- Practice, practice, practice! Plan on reviewing your plan at least once a month.

Now that you have had the above discussion with your loved ones, fill out the communication plan on the following page to ensure you and your loved ones know what to do during a public health emergency.

Keep a copy of this plan in your all-hazards supply kit and disseminate a copy of the plan to everyone you have named.

Additional Resources

- **CDC Emergency Preparedness and You: Develop a Disaster Plan**
  Please visit CDC's site (http://emergency.cdc.gov/preparedness/plan/) for more information on how to develop an all-hazards communication plan.
- **Safe and Well Website**
  The American Red Cross developed the Safe and Well website (https://safeandwell.communitys.org/cms/), which enables people within a disaster area to let their friends and loved ones outside of the affected region know of their well-being.

All-Hazards Communication Plan

Fill out the below to identify the standard information your communication plan should have.

Neighborhood Meeting Place	
Telephone Number:	
Address:	
Local Meeting Place	
Telephone Number:	
Address:	
Evacuation Location	
Telephone Number:	
Address:	
Out-of-Town Contact	
Telephone Number:	
Address:	

All-Hazards Communication Plan

Fill out the below information for each of your loved ones (page can be copied for additional persons).

Name	
Social Security Number:	
Date of Birth:	
Telephone Number:	
Work/School Address:	
Evacuation Location:	
Important Medical Information:	
Name	
Social Security Number:	
Date of Birth:	
Telephone Number:	
Work/School Address:	
Evacuation Location:	
Important Medical Information:	
Name	
Social Security Number:	
Date of Birth:	
Telephone Number:	
Work/School Address:	
Evacuation Location:	
Important Medical Information:	

Be Informed

Being informed means staying up-to-date on the most current information available. Below are some basic steps you can take to help keep you and your loved ones safe.

- Learn what public health emergencies may occur in your area. These events can range from those affecting only you and your loved ones, like a home fire or medical emergency, to those affecting your entire community, like an earthquake or flood.
- Identify how local authorities will notify you during a disaster and how you will get information, whether through local radio, TV, or NOAA Weather Radio stations.
- Know the difference between different weather alerts such as watches and warnings and what actions to take in each.
- Know what actions to take to protect yourself during public health emergencies that may occur in areas where you travel or have moved recently. For example, if you travel to a place where earthquakes are common and you are not familiar with them, make sure you know what to do to protect yourself should one occur.
- When a major public health emergency occurs, your community can change in an instant. Loved ones may be hurt and emergency response is likely to be delayed. Make sure that at least one member of your household is trained in first aid and CPR and knows how to use an automated external defibrillator (AED). This training is useful in many emergency situations.
- Teach children how and when to call 911 or your local Emergency Medical Services number for emergency help.
- Teach each family member how to use the fire extinguisher, and show them where it's kept.
- Share what you have learned with your loved ones, household, and neighbors and encourage them **to be informed as well.**

Once you have familiarized yourself with the steps above, read the in-depth information provided in the following sections:

- Shelter-in-place
- Advice for those with special needs
- Tips for pet owners
- Preparedness information for specific hazards

Shelter-in-Place

"Shelter-in-place" means to take immediate shelter where you are—at home, work, school, or in between. It may also mean "seal the room". In other words, take steps to prevent outside air from coming in. This is because local authorities may instruct you to "shelter-in-place" if chemical or radiological contaminants are released into the environment. It is important to listen to TV or radio to understand whether the authorities wish you to merely remain indoors or to take additional steps to protect yourself and your loved ones.

To Prepare...

At Home

- Bring children and pets indoors immediately. If your children are at school, do not try to bring them home unless told to. The school will shelter them.
- Close and lock all outside doors and windows. Locking may provide a tighter seal.
- If you are told there is danger of explosion, close the window shades, blinds, or curtains.
- Turn off the heating, ventilation, or air conditioning system. Turn off all fans, including bathroom fans operated by the light switch.
- Get your all-hazards supply kit, and make sure the radio is working.
- Take everyone, including pets, into an interior room with no or few windows .
- If you are instructed to seal the room, use duct tape and plastic sheeting, such as heavy-duty plastic garbage bags, to seal all cracks around the door into the room.
- Call your emergency contact and keep the phone handy in case you need to report a life-threatening condition. Otherwise stay off the phone, so that the lines will be available for use by emergency responders.
- When you are told that the emergency is over, open windows and doors, turn on ventilation systems, and go outside until the building's air has been exchanged with the now clean outdoor air.
- Follow any special instructions given by emergency authorities to avoid chemical or radiological contaminants outdoors.

Shelter-in-Place

At Work

- Close the office, making any customers, clients, or visitors in the building aware that they need to stay until the emergency is over.
- Close and lock all windows, exterior doors, and any other openings to the outside.
- Turn off all heating, ventilating, and air conditioning systems.
- If you are not in imminent danger, call your emergency contacts to let them know where you and your customers are and that they are safe.
- If time permits and it is not possible for a person to monitor the telephone, turn on call-forwarding or alternative telephone answering systems or services.
- If you are told there is danger of explosion, close any window shades, blinds, or curtains near your workspace.
- Take your all-hazards supply kit(s) and go to your pre-determined sheltering room(s) and, when everyone is in, shut and lock the doors. Turn on the radios or TVs.
- If instructed to do so by officials, use duct tape and plastic sheeting, such as heavy-duty plastic garbage bags, to seal all cracks around the door(s), vents into the room, and windows.
- When you are told that all is safe, open windows and doors, turn on heating, ventilating, and air conditioning systems and go outside until the building's air has been exchanged with the now-clean outdoor air.
- Follow any special instructions given by emergency authorities to avoid chemical or radiological contaminants outdoors.

At School

- Close the school. Activate the school's emergency plan and bring students, faculty, staff, and visitors indoors.
- Ideally, have access to the school-wide public address system in the room where the top school official takes shelter.
- Have all children, staff, and visitors take shelter in pre-selected rooms.
- Lock all windows, exterior doors and any other openings to the outside and if instructed by officials, use duct tape and plastic sheeting to seal all cracks around the door(s), windows, and vents into the room.
- If told there is danger of explosion, make sure window shades, blinds, or curtains are closed.
- Turn off heating, ventilating, and air conditioning systems.

At School, Continued

- If children have cell phones, allow them to use them to call a parent or guardian to let them know that they have been asked to remain in school until further notice and that they are safe.
- Schools should assign one or two people to collect information on who is in the building when an emergency happens so that first responders can know everyone is accounted for, if necessary.
- Everyone should stay in the room until school officials, via the public address system, announce that all is safe or say everyone must evacuate.
- Once the word has been given that all is safe, everyone should go outside when the building's ventilation systems are turned back on.
- Follow any special instructions given by emergency authorities to avoid chemical and radiological contaminants outdoors.

In Your Vehicle

- If you are very close to home, your workplace, or a public building, go there immediately and go inside. Follow the "shelter-in-place" recommendations for that location.
- If you are unable to get indoors quickly and safely, then pull over to the side of the road. Stop your vehicle in the safest place possible. If it is sunny outside, it is preferable to stop under a bridge or in a shady spot to avoid being overheated.
- Turn off the engine and seal windows and vents with duct tape or anything else you have.
- Listen to the radio periodically for updated advice and instructions. (Modern car radios consume very little battery power and should not affect your ability to start your car later).
- Stay where you are until you are told it is safe to get back on the road.

Advice for Those with Special Needs

Public health emergencies can strike quickly and without warning which may force you to evacuate your neighborhood or be confined to your home. What would you do if your basic services — water, gas, electricity, or communications — were cut off?

Learn how to protect yourself and cope with all-hazards by planning ahead. Even if you have physical limitations, you can still protect and prepare yourself.

If you undergo routine treatments administered by a clinic or hospital, or if you receive regular services such as home health care or treatment, talk to your service provider about their emergency plans.

Create a written list of your treatment to include:

- Any medical problems you are being treated for.
- Any medications (including generic drug names) you are currently taking and the doses.
- Talk to loved ones (and the directors of the facility in which you live, if you are not living independently) and discuss what your travel arrangements would be in the event of an evacuation.
- Try to have a two week supply of all medications you are currently taking on-hand.
- Ask your doctor what you should do if your emergency supply doesn't last though an emergency, gets lost, or damaged by heat or water. For example, ask if you can stretch out the supply of some medications by skipping every other dose, or cutting pills in half. This may or may not be advisable.

Make sure any medical equipment (e.g. blood sugar monitors, blood pressure monitors, hearing aids with extra batteries, and oxygen) you use regularly is included in your kit.

Additional Resources

- **AARP Offers Tips to Help Older Americans Prepare for Emergencies**
  AARP has compiled a list of resources to aid caregivers of older adults with preparedness planning here.

Tips for Pet Owners

Make plans to ensure your pet's safety before, during, and after an emergency. Some things you can do to prepare your pets for all-hazards include:

- Develop a pet buddy system with neighbors, friends, and relatives to ensure someone is available to care for or evacuate your pet(s) if you are unable to do so.
- Contact your local American Red Cross - Animal Safety Chapter and Animal Shelter to find out what your community's plans and resources are for protecting pets in an emergency.
- Talk to your pet's veterinarian about emergency planning.

Whether you decide to stay put in an emergency or evacuate to a safer location, you will need to make plans in advance for your pets. Keep in mind that what's best for you is typically what's best for your animals.

If you must evacuate, take your pets with you if possible. However, if you are going to a public shelter, it is important to understand that animals may not be allowed inside. For this reason, it is best to plan in advance for shelter alternatives that will work for both you and your pets.

Pet All-Hazards Supply Kit

- ☐ Food (at least three days, stored in an airtight container)
- ☐ Water (at least three days)
- ☐ Food and Water Bowls
- ☐ Leash
- ☐ Medications
- ☐ Veterinary Records
- ☐ First Aid Supplies (alcohol swabs, wound dressings, antibiotic ointment)

Bioterrorism Attack

A bioterrorism attack is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. These agents are typically found in nature, but it is possible that they could be changed to increase their ability to cause disease, make them resistant to current medicines, or to increase their ability to be spread into the environment. Biological agents can be spread through the air, water, or food.

Before a Bioterrorism Attack

- Create an all-hazards supply kit (pages 7-8) and communication plan (page 10-11).
- Check with your doctor to ensure all required or suggested immunizations are up to date.
- Consider installing a High Efficiency Particulate Air (HEPA) filter in your furnace return duct.

During a Bioterrorism Attack

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Individuals in the group or area that local health officials have linked to exposure or who have symptoms that match those described should seek emergency medical attention.
- Individuals who are potentially exposed should follow instructions of local health officials and expect to receive medical evaluation and treatment.
- Individuals who become aware of a suspicious substance nearby should cover their mouths and noses with layers of fabric that can filter the air but still allow breathing, quickly leave the area, wash with soap and water, and contact local authorities once they are in a safe location.

After a Bioterrorism Attack

- Listen to your NOAA weather radio receiver, battery-powered radio, or TV for information.
- People may be alerted to potential exposure. If this is the case, pay close attention to all official warnings and instructions on how to proceed.

Chemical Emergency

CDC has a key role in protecting the public's health in an emergency involving the release of a chemical that could harm people's health. Learn how you can be prepared to protect yourself and your loved ones before, during, and after a chemical emergency.

Before a Chemical Emergency

- Know the types of chemical hazards that can cause harm:
  - **Biotoxins** — poisons that come from plants or animals
  - **Blister agents/vesicants** — chemicals that severely blister the eyes, respiratory tract, and skin on contact
  - **Blood agents** — poisons that affect the body by being absorbed into the blood
  - Caustics (acids) — chemicals that burn or corrode people's skin, eyes, and mucus membranes (lining of the nose, mouth, throat, and lungs) on contact
  - **Choking/lung/pulmonary agents** — chemicals that cause severe irritation or swelling of the respiratory tract (lining of the nose and throat, lungs)
  - **Incapacitating agents** — drugs that make people unable to think clearly or that cause an altered state of consciousness (possibly unconsciousness)
  - **Long-acting anticoagulants** — poisons that prevent blood from clotting properly, which can lead to uncontrolled bleeding
  - **Metals** — agents that consist of metallic poisons
  - **Nerve agents** — highly poisonous chemicals that work by preventing the nervous system from working properly
  - **Organic solvents** — agents that damage the tissues of living things by dissolving fats and oils
  - **Riot control agents/tear gas** — highly irritating agents normally used by law enforcement for crowd control or by individuals for protection (for example, mace)
  - **Toxic alcohols** — poisonous alcohols that can damage the heart, kidneys, and nervous system
  - **Vomiting agents** — chemicals that cause nausea and vomiting
- Create an all-hazards supply kit (pages 7-8) and communication plan (page 10-11).

During a Chemical Emergency

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Act quickly and follow the instructions of local health officials. Every situation can be different, so local emergency coordinators might have special instructions for you to follow.

If you come in contact with a hazardous chemical:

- Remove your clothing
- Quickly take off clothing that has a chemical on it. Any clothing that has to be pulled over your head should be cut off instead of being pulled over your head.
- If you are helping other people remove their clothing, try to avoid touching any contaminated areas, and remove the clothing as quickly as possible.
- Wash yourself:
    - As quickly as possible, wash any chemicals from your skin with large amounts of soap and water.
    - If your eyes are burning or your vision is blurred, rinse your eyes with plain water for 10 to 15 minutes.
- Dispose of your clothes:
    - After you have washed yourself, place your clothing inside a plastic bag. Avoid touching contaminated areas of the clothing. If you can't avoid touching contaminated areas, or you aren't sure where the contaminated areas are, wear rubber gloves. Anything that touches the contaminated clothing should also be placed in the bag.
    - Seal the bag, and then seal that bag inside another plastic bag.
    - When the local or state health department or emergency personnel arrive, tell them what you did with your clothes. The health department or emergency personnel will arrange for further disposal. Do not dispose of the plastic bags yourself.

After a Chemical Emergency

- After you have removed your clothing, washed yourself, and disposed of your clothing, you should dress in clothing that is not contaminated.
- Clothing that has been stored in drawers or closets are unlikely to be contaminated, so it would be a good choice for you to wear.
- You should avoid coming in contact with other people who may have been ex-posed but who have not yet changed their clothes or washed.
- Move away from the area where the chemical was released when emergency coordinators tell you to do so.

Earthquake

By planning and practicing what to do if an earthquake strikes, you and your loved ones can learn to react correctly and automatically when the shaking begins. During an earthquake, most deaths and injuries are caused by collapsing building materials and heavy falling objects, such as bookcases, cabinets, and heating units. Learn how you can protect yourself and your loved ones before, during, and after an earthquake.

Before an Earthquake

- Create an all-hazards supply kit (pages 7-8) and communication plan (page 10-11).
- Fasten shelves securely to walls.
- Store breakable items in low cabinets and latch or fasten doors securely.
- Place any large, heavy objects on lower shelves or the floor.
- Secure large objects such as the refrigerator, water heater, and furnace to wall studs.
- Locate safe spots to shelter in place such as a closet or bathroom with no windows in the center of the house or building.
- Practice drills with your loved ones.

During an Earthquake

If Indoors

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Get under a sturdy table or desk and hold on to it.
- If you're not near a table or desk, cover your face and head with your arms; and
    - stand or crouch in a strongly supported doorway, OR
    - brace yourself in an inside corner of the house or building.
- Stay clear of windows or glass that could shatter or objects that could fall on you.
- Remember: If inside, stay inside. Many people are injured at entrances of buildings by falling debris.
- Go to the ground level if possible. DO NOT use elevators.

If Outdoors

- Move away from buildings and utility wires. The greatest danger from falling debris is just outside doorways and close to outer walls.
- Once in the open, stay there until the shaking stops.

If in a Moving Vehicle

- Stop as quickly as possible and stay in the vehicle.
- Avoid areas under trees, overpasses, utility wires, or near buildings.
- Proceed with caution once the earthquake has stopped.
- DO NOT attempt to drive on roads, bridges, or ramps that may have been damaged during the earthquake.

After an Earthquake

- Listen to your NOAA weather radio receiver, battery-powered radio, or TV for information.
- You may need to evacuate a damaged area after an earthquake occurs. If advised to evacuate, do so immediately.
- Go to a designated shelter if you have been told to evacuate or feel your home is unsafe.
- Help injured or trapped persons by calling 9-1-1 for help. Do not attempt to move injured persons unless they are in immediate danger of further injury.
- Expect aftershocks. These secondary shockwaves are typically less forceful than the main earthquake, but can cause further damage to already weakened structures.
- If you live in a coastal area, be aware of possible tsunamis and listen for local weather alerts.
- Only return inside your home after local authorities say it is safe.
- Your safety is more important than any possession. Open cabinets cautiously, check for gas leaks, and inspect utilities. If you smell smoke, gas, or fumes, evacuate the area immediately and contact local authorities.

Extreme Heat

People suffer heat-related illness when their bodies are unable to compensate and properly cool themselves. The body normally cools itself by sweating, but under some conditions, sweating just isn't enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs.

Several factors affect the body's ability to cool itself during extremely hot weather:

- When the humidity is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly.
- Other conditions related to risk include age, obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn, and prescription drug and alcohol use.

Before Exposure to Extreme Heat

- Create an all-hazards supply kit (pages 7-8) and communication plan (page 10-11).
- Install temporary window reflectors to reflect heat back outside.
- Cover windows that receive morning or afternoon sun with shades or drapes. Listen to local weather forecasts and stay informed about upcoming temperature changes.

NOTE: Persons living in urban areas are at a greater risk heat exhaustion than people living in rural areas.

During Exposure to Extreme Heat

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Stay indoors as much as possible.
- NEVER leave children or pets alone in vehicles. Even with the windows cracked open, interior temperatures can rise almost 20 degrees Fahrenheit within the first 10 minutes.
- Eat light and regular meals throughout the day.
- Drink plenty of fluids; approximately 16-32 ounces per hour.
- Do NOT drink liquids that contain alcohol or large amounts of sugar — these actually cause you to lose more body fluid.
- Dress in loose-fitting, lightweight clothing.
- Schedule Outdoor Activities Carefully. If you must be outdoors, try to limit your outdoor activity to morning and evening hours. Try to rest often in shady areas so that your body's thermostat will have a chance to recover.
- Use a Buddy System. When working in the heat, monitor the condition of your co-workers and have someone do the same for you.

- Monitor Those at High Risk. Although anyone at any time can suffer from heat-related illness — infants, young children, and elderly are at a greater risk.

After Exposure to Extreme Heat

- Continue to monitor those at high risk — infants, young children, and the elderly.
- Drink plenty of clean water.
- Continue to eat light and regular meals throughout the day.

Did You Know: Heat-related deaths and illness are preventable, yet from 1979-2003 excessive heat exposure caused 8,015 deaths in the United States. During this period, more people in this country died from extreme heat than from hurricanes, lightning, tornadoes, floods, and earthquakes combined.

Flood

Floods are one of the most common hazards in the United States. Most floods develop slowly; however, flash floods can occur, destructively sweeping away most things in its path with a rush of water.

Know Your Local Warning System

- Flood watch – flooding is possible.
- Flash Flood Watch – Flash flooding is possible; prepare to move to high ground.
- Flooding – Flooding is occurring or will occur soon; be prepared to evacuate if advised.

Before a Flood

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Contact the county geologist or county planning department to find out if your home is located in a flash-flood-prone area and avoid building new homes in flood-prone areas.
- Learn about your community's emergency plans, warning signals, evacuation routes, and locations of emergency shelters.
- Plan and practice a flood evacuation route with your loved ones. Ask an out-of-state relative or friend to be the "emergency contact" in case your loved ones are separated during a flood. Make sure everyone knows the name, address, and phone number of this contact person.
- Identify potential home hazards and know how to secure or protect them before the flood strikes.
- Buy and install sump pumps with back-up power.
- Anchor fuel tanks which can contaminate your basement if torn free. An unanchored tank outside can be swept downstream and damage other houses.

During a Flood Watch or Warning

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Turn off all utilities at the main power switch and close the main gas valve if evacuation appears necessary.
- Fill bathtubs, sinks and plastic soda bottles with clean water. Sanitize the sinks and tubs first by using bleach. Rinse and fill with clean water.

Preparing to Evacuate

- Fill your vehicle's gas tank and make sure the emergency kit for your car is ready.
- If no vehicle is available, make arrangements with friends or loved ones for transportation.
- Locate your emergency kit and important documents.
- Listen to your NOAA weather radio receiver, battery-powered radio, or TV for information.
- Listen for disaster sirens and warning signals.

If You Are Ordered to Evacuate

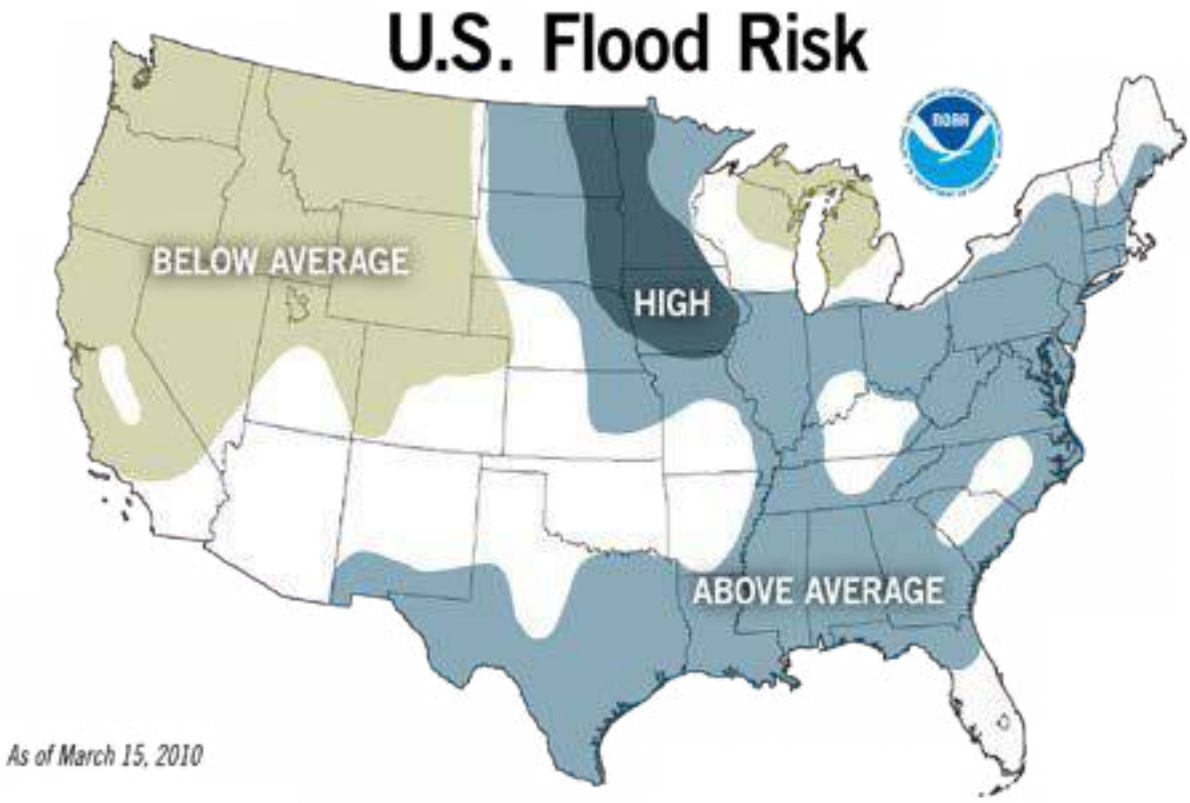
- You should never ignore an evacuation order. Authorities will direct you to leave if you are in a low-lying area, or within the greatest potential path of the rising waters. If a flood warning is issued for your area or you are directed by authorities to evacuate the area:
- Take only essential items, your all-hazards supply kit, and communication plan with you.
- If you have time, turn off the gas, electricity, and water.
- Disconnect appliances to prevent electrical shock when power is restored.
- Follow the designated evacuation routes and expect heavy traffic.
- Do not attempt to drive or walk across creeks or flooded roads.

If You Are Ordered NOT to Evacuate: Shelter-In-Place

- Monitor your NAOO weather, battery-powered radio, or television for weather updates.
- Prepare to evacuate to a shelter or to a neighbor's home if your home is damaged, or if you are instructed to do so by local health officials.

After a Flood

- Listen to your NOAA weather radio receiver, battery-powered radio, or TV for information.
- Use the telephone only for emergency calls.
- Stay away from damaged structures and buildings. Flood water can cause structurally damaged floors and walls to collapse.
- Return home only when local health officials say it is safe.



Source: NOAA 2010

Hurricane

A hurricane is a type of tropical cyclone or severe tropical storm that originates in areas of low pressure equatorial regions of the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the eastern Pacific Ocean. All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes.

The Atlantic hurricane season lasts from June to November, with the peak season from mid-August to late October. Parts of the Southwest United States and the Pacific Coast are subjected to heavy rains and floods each year due to hurricanes off of Mexico.

Before a Hurricane

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Learn about your community's emergency plans, warning signals, evacuation routes, and locations of emergency shelters.
- Identify potential home hazards and know how to secure or protect them before the hurricane strikes.
- Be prepared to turn off electrical power, gas and water before you evacuate.
- Buy a fire extinguisher and make sure your loved ones know where to find it and how to use it.
- Inform local authorities about any special needs (e.g. elderly, bedridden, or disabled persons).
- Prepare an emergency kit for your car (page 14) with items such as food, flares, booster cables, maps, tools, a first aid kit, fire extinguisher, and sleeping bags.
- Fill your automobile's gas tank. If no vehicle is available, make arrangements with friends or loved ones for transportation.
- Make plans to ensure your pets' safety (http://www.bt.cdc.gov/disasters/petprotect.asp).

During a Hurricane Watch

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Secure any items outside which may damage property in a storm, such as bicycles, grills, propane tanks, etc.
- Cover windows and doors with plywood or boards or place large strips of masking tape or adhesive tape on the windows to reduce the risk of breakage and flying glass.
- Fill sinks and bathtubs with water as an extra supply for washing.
- Adjust the thermostat on refrigerators and freezers to the coolest possible temperature.

If You are Ordered to Evacuate

Because of the destructive power of a hurricane, you should never ignore an evacuation order. If a hurricane warning is issued for your area or you are directed by authorities to evacuate the area:

- Take only essential items, your all-hazards supply kit, and communication plan with you.
- If you have time, turn off the gas, electricity, and water.
- Make sure your automobile's emergency kit is ready.
- Follow the designated evacuation routes and expect heavy traffic.

If You Are Ordered NOT To Evacuate: Shelter-In-Place

- Refer to pages 13-14.

After a Hurricane

- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.
- Stay away from damaged structures and buildings. Standing water can cause structurally damaged floors and walls to collapse.
- Return home only when local health officials say it is safe.

Landslides and Mudslides

Landslides occur when masses of rock, earth, or debris move down a slope. Debris flows, also known as mudslides, are a common type of fast-moving landslide that tends to flow in channels.

What Causes Landslides and Mudslides?

Landslides are caused by disturbances in the natural stability of a slope. They can accompany heavy rains or follow droughts, earthquakes, or volcanic eruptions. Mudslides develop when water rapidly accumulates in the ground and results in a surge of water-saturated rock, earth, and debris. Mudslides usually start on steep slopes and can be activated by natural disasters. Areas where wildfires or human modification of the land have destroyed vegetation on slopes are particularly vulnerable to landslides during and after heavy rains.

Areas That Are at Risk

- Areas where wildfires or human modification of the land have destroyed vegetation,
- Areas where landslides have occurred before,
- Steep slopes and areas at the bottom of slopes or canyons,
- Slopes that have been altered for construction of buildings and roads,
- Channels along a stream or river, and
- Areas where surface runoff is directed.

Before Intense Storms and Heavy Rainfall

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Assume that steep slopes and areas burned by wildfires are vulnerable to landslides and debris flows.
- Learn whether landslides or debris flows have occurred previously in your area by contacting local authorities, a county geologist or the county planning department, state geological surveys or departments of natural resources, or university departments of geology.
- Contact local authorities about emergency and evacuation plans.
- If you live in an area vulnerable to landslides, consider leaving it.

During Intense Storms and Heavy Rainfall

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Be aware of any sudden increase or decrease in water level on a stream or creek that might indicate debris flow upstream. A trickle of flowing mud may precede a larger flow.
- Look for tilted trees, telephone poles, fences, or walls, and for new holes or bare spots on hillsides.
- Listen for rumbling sounds that might indicate an approaching landslide or mudflow.
- Be alert when driving. Roads may become blocked or closed due to collapsed pavement or debris.
- If landslide or debris flow danger is imminent, quickly move away from the path of the slide. Getting out of the path of a debris flow is your best protection. Move to the nearest high ground in a direction away from the path. If rocks and debris are approaching, run for the nearest shelter and take cover (if possible, under a desk, table, or other piece of sturdy furniture).

After a landslide or mudslide

- Stay away from the site. Flooding or additional slides may occur after the initial landslide or mudflow.
- Check for injured or trapped people near the affected area, if it is possible to do so without entering the path of the landslide or mudflow.
- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.

Pandemic Influenza

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza (flu) A virus emerges for which there is little or no immunity in the human population and spreads easily from person-to-person. A pandemic is determined by spread of disease, not necessarily severity of disease. CDC has been preparing to respond to an influenza pandemic in a number of ways, including the improvement of diagnostic testing capabilities, laboratory detection equipment, and influenza virus surveillance systems.

Pandemics are rare and unpredictable, with the severity of the pandemic being determined largely by the characteristics of the new virus. However, influenza viruses share similar properties in terms of how they transmit and, based on this information, it is possible to develop **general recommendations** for everyday actions that can slow the spread of novel influenza infection within communities:

- Know the signs and symptoms of the specific disease outbreak by visiting www.cdc.gov/flu.
- If you or a loved one develop symptoms, follow the advice of local health officials regarding when to seek medical care.
- In some cases, vaccine may be available to protect against this new virus, or may be under production. A flu vaccine is the best way to protect against influenza viruses.

Take everyday **preventive measures** to stop the spread of germs. These are sometimes called "appropriate respiratory and hand hygiene precautions," and include:

- covering your nose and mouth with a tissue when you cough or sneeze;
- washing your hands often with soap and water or an alcohol-based hand rub;
- not touching your eyes, nose, or mouth;
- avoiding close contact with people displaying signs and symptoms;
- and staying home for at least 24 hours after your fever is gone.
- Follow local health official advice regarding school closures, avoiding crowds or other social distancing measures.

Tip For additional information, visit www.cdc.gov/flu or call 1-800-CDC-INFO to stay informed and be prepared to respond when an influenza pandemic occurs.

Radiation

CDC has a key role in protecting the public's health in an emergency involving the release of radiation that could harm people's health. Below are some steps you can take to better prepare.

What Is Radiation?

- Radiation is a form of energy that is naturally present all around us.
- Different types of radiation exist, some of which have more energy than others.
- Radioactive material is a substance that gives off radiation

How Can Exposure Occur?

- People are exposed to small amounts of radiation every day, both from naturally occurring sources (such as elements in the soil or cosmic rays from the sun), and man-made sources. Man-made sources include some electronic equipment (such as older television sets), medical sources (such as x-rays, certain diagnostic tests, and treatments), and from nuclear weapons testing.
- The amount of radiation from natural or man-made sources to which people are exposed is usually small; a radiation emergency (such as a nuclear power plant accident or a terrorist event) could expose people to small or large doses of radiation, depending on the severity of the incident.

What Happens When People Are Exposed to Radiation?

- Radiation in large doses can affect the body in a number of ways, and the adverse health effects of exposure may not be apparent for many years.

Before a Radiation Emergency Occurs

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Your community should have a plan in place in case of a radiation emergency. Check with community leaders to learn more about the plan and possible evacuation routes.
- Check with your child's school, the nursing home of a loved one, and your employer to see what their plans are for dealing with a radiation emergency.

During a Radiation Emergency

- During and after a release of radioactive materials, local, state and federal authorities will monitor the levels of radiation and determine what protective actions to take.
- The most appropriate action will depend on the situation.
- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- If a radiation emergency involves the release of large amounts of radioactive materials, you may be advised to "shelter in place," which means to stay in your home or office; or you may be advised to move to another location.

If You Are Ordered NOT To Evacuate: Shelter-In-Place

- Refer to pages 13-14.

If You Are Ordered To Evacuate:

- Take only essential items, your all-hazards supply kit, and communication plan with you.
- Follow the directions that your local health officials provide. Leave the area as quickly and orderly as possible.
- Take pets only if you are using your own vehicle and going to a place you know will accept animals. Emergency vehicles and shelters usually will not accept animals.

After a Radiation Emergency

- Listen to a NOAA weather radio, or battery-powered radio, or television for the latest emergency information.
- Use the telephone only for emergency calls.
- Return home only when local health officials say it is safe.

Tornado

Knowing what to do when you see a tornado, or when you hear a tornado warning, can help protect you and your loved ones. During a tornado, people face hazards from extremely high winds and risk being struck by flying and falling objects. After a tornado, the wreckage left behind poses additional injury risks. Although nothing can be done to prevent tornadoes, there are actions you can take to protect your health and safety.

Know Your Local Warning System

- A **tornado watch** is issued when weather conditions favor the formation of tornadoes, for example, during a severe thunderstorm.
    - Stay tuned to local radio and TV stations or a National Oceanographic and Atmospheric Administration (NOAA) Weather Radio for further weather information.
    - Watch the weather and be prepared to take shelter immediately if conditions worsen.
- A **tornado warning** is issued when a tornado funnel is sighted or indicated by weather radar.
    - You should obtain your all-hazards supply kit and communication plan and take shelter immediately.

Before a Tornado

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Strengthen the areas of connection between the wall studs and roof rafters with hurricane clips ahead of time.
- Shut off utilities (Gas, Electric, & Water).
- Arrange and secure items such as furniture away from windows, pictures, or glass.
- Move heavy objects to lowest shelves and secure large pieces of furniture and cabinets if possible.
- Plan ahead and pick a place where persons can gather if a tornado is headed your way. One basic rule is AVOID WINDOWS. An exploding window can injure or kill.

During a Tornado

If you are under a tornado warning, seek shelter immediately. Although there is no completely safe place during a tornado, some locations are much safer than others. Here is how you can remain safe in the following locations.

In a Vehicle, Trailer, or Mobile Home

- DO NOT STAY IN A VEHICLE, TRAILER, OR MOBILE HOME DURING A TORNADO. These items can turn over during strong winds. Even trailers and mobile homes with a tie-down system cannot withstand the force of tornado winds.
- PLAN AHEAD. If you live in a mobile home, go to the lowest floor of a nearby building, preferably one with a basement. If there is no shelter nearby, lie flat in the nearest ditch, ravine, or culvert and protect your head with an object or with your arms.
- DO NOT TRY TO OUTRUN A TORNADO IN YOUR CAR. If you see a tornado, stop your vehicle and get out. Do not get under your vehicle. Follow the directions for seeking shelter outdoors (see next section).

Outdoors

If you are caught outside during a tornado and there is no adequate shelter immediately available:

- Avoid areas with many trees.
- Avoid vehicles.
- Lie down flat in the nearest ditch, ravine, or culvert.
- Protect your head with an object or with your arms.

After a Tornado

- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.
- Use the telephone only for emergency calls.
- Return home only when local health officials say it is safe.

Helmet and Tornado Statement

CDC continues to recommend, as its first recommendation, that people in the path of a tornado find a shelter or a tornado-safe room. The safest place in the home is the interior part of a basement. If possible, get under something sturdy such as a heavy table or workbench. If outdoors, lie down in a gully or ditch.
We understand that people are looking for any useful and effective ways to protect themselves. We don't have research on the effectiveness of helmet use to prevent head injuries during a tornado, but we do know that head injuries are common causes of death during tornadoes. CDC has long made the recommendation that people try to protect their heads. Because the time to react may be very short, if people choose to use helmets they should know where they are and have them readily accessible.

Tsunami

Tsunamis are a series of enormous ocean waves generated by large undersea disturbances, such as a major earthquake on the sea floor or a landslide. Tsunamis can occur on any ocean shoreline and can strike suddenly, violently, and without warning. Below are some steps you can take to better prepare.

Before a Tsunami

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Create an evacuation plan and practice this plan with everyone in your household.
- Know your community's warning systems and disaster plans, including evacuation routes.
- If an earthquake occurs and you are in a coastal area, turn on your battery-powered radio to learn if there is a tsunami warning.
- If schools in your area require you to pick up your children, be aware routes may be barricaded our jammed.
- If you are ordered to evacuate, follow the directions that your local health officials provide. Leave the area as quickly and orderly as possible.

During a Tsunami

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Move inland to higher ground immediately. Pick areas 100 feet above sea level or go as far as 2 miles inland, away from the coastline.
- Stay away from beach areas. NEVER go down to the beach to witness a tsunami coming to shore.
- Save yourself – not your possessions.
- Help others that require special assistance such as infants, children, elderly people, and individuals with functional needs.
- Stay out of any building with surrounding water. Flood water can cause structurally damaged floors and walls to collapse.

After a Tsunami

- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emer-gency information.
- Return home only after local health officials tell you it is safe.
- Go to a designated shelter if you have been told to evacuate or feel your home is unsafe.
- Avoid disaster areas and debris in the water.

Tip: Natural Warning Signs

- Severe ground shaking from local earthquakes may cause tsunamis.
- As a tsunami approaches shorelines, water may recede from the coast, exposing the ocean floor, reefs and fish.
- Abnormal ocean activity, a wall of water, and an approaching tsunami create a loud “roaring” sound similar to that of a train or jet aircraft.

If you experience any of these phenomena, don’t wait for official evacuation orders. Immedi-ately leave low-lying coastal areas and move to higher ground.

Volcano

You can do many things to protect yourself and your loved ones from the dangers a volcanic eruption can cause. Volcanoes can produce ash, toxic gases, flash-floods of hot water, and debris called lahars, lava flows, and fast-moving flows of hot gases and debris called pyroclastic flows. Although some volcanic threats can occur with little or no notice after an eruption occurs, there are some actions you can take beforehand to protect yourself and your loved ones.

Before a Volcanic Eruption

- Create an all-hazards supply kit (pages 5-6) and communication plan (page 8).
- Purchase a N-95 respirator (or a multi-use dust mask as a last resort).
- If you are ordered to evacuate, follow the directions your local health officials provide. Leave the area as quickly and orderly as possible.

During a Volcanic Eruption

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- Follow evacuation orders as issued by local authorities.
- If you are unable to evacuate, protect yourself from falling ash by remaining indoors with doors, windows, and ventilation ducts closed until the ash settles.
- Help others that require special assistance such as infants, children, elderly people, and individuals with functional needs.

After a Volcanic Eruption

- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.
- Return home only after local health officials tell you it is safe.
- Go to a designated shelter if you have been told to evacuate or feel your home is unsafe.
- Stay indoors if at all possible. If you must go outdoors, use a respirator, dust mask or damp cloth over your face.
- Avoid driving in heavy ash fall unless absolutely required.

Wildfire

Smoke from wildfires is a mixture of gases and fine particles from burning trees and other plant materials. Smoke can hurt your eyes, irritate your respiratory system, and worsen chronic heart and lung diseases. To keep yourself and your loved ones safe, you should know how to prevent wildfire-related problems and what to do if wildfire threatens your area.

Before Wildfire Threatens

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency and evacuation information.
- Follow the instructions of local health officials.
- Back your car into the garage or park it in an open space facing the direction of escape. Shut doors and roll up windows. Leave the key in the ignition.
- Close garage windows and doors, but leave them unlocked. Disconnect automatic garage door openers.
- Confine pets to one room. Make plans to care for your pets in case you must evacuate.
- Arrange temporary housing at a friend or relative's home outside the threatened area.
- If you are sure you have time, take steps to protect your home:

Indoors

- Close windows, vents, and doors with noncombustible window coverings and heavy drapes. Remove lightweight curtains.
- Shut off all utilities (e.g. water, electricity, and gas) if possible..
- Open fireplace damper. Close fireplace screens.
- Move flammable furniture into the center of the home away from windows and sliding glass doors.
- Turn on a light in each room to increase the visibility of your home in heavy smoke.

Outdoors

- Seal attic and ground vents with noncombustible coverings.
- Turn off propane tanks.
- Place combustible patio furniture inside.
- Connect the garden hose to outside taps.
- Set up a portable gasoline-powered pump.
- Place lawn sprinklers on the roof and near above ground fuel tanks. Wetting the roof may help if it is shake-shingled.
- Wet or remove shrubs within 15 feet of the home.

During a Wildfire

- Obtain your all-hazards supply kit and communication plan and stay tuned to local radio or television station for information and instructions from local health officials.
- If advised to evacuate, do so immediately.
- Wear protective clothing — sturdy shoes, cotton or woolen clothing, long pants, a long-sleeved shirt, gloves, and a handkerchief to protect your face.
- Tell someone when you left and where you are going.
- Choose a route away from fire hazards. Watch for changes in the speed and direction of fire and smoke.

After a Wildfire

- If you are with burn victims, call 9-1-1 or seek help immediately. Cool burned areas with cool, sterile water and cover with a loose sterile dressing to reduce the chance of further injury or infection.
- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.
- Return home only after local health officials tell you it is safe.
- Go to a designated shelter if you have been told to evacuate or feel your home is unsafe.
- If you remained at home, or return home, check the roof immediately after the danger has passed. Put out any fires, sparks, or embers and check the attic for hidden embers.
- Re-check for smoke and embers throughout the house several hours after the fire. Hot spots can flare up without warning.
- If you detect heat or smoke, evacuate immediately.

Winter Weather

When winter temperatures drop significantly below normal, staying warm and safe can become a challenge. Exposure to cold temperatures, whether indoors or outside, can cause serious or life-threatening health problems. Infants and the elderly are particularly at risk, but anyone can be affected. To keep yourself and your loved ones safe, you should know how to prevent cold-related health problems and what to do if a cold-weather health emergency arises.

Before Winter Weather

- Create an all-hazards supply kit (pages 7-8) and communication plan (pages 10-11).
- Spread rock salt or alternate environmentally safe products on walkways, steps, and driveways.
- Place snow shovels and other snow removal equipment in an easily accessible location.
- Store an adequate supply of dry, seasoned wood for your fireplace in a dry and easily accessible location within your home.
- Listen to your radio and other local news channels for critical information and weather alerts.
- Bring pets indoors and move livestock to sheltered areas.

During Winter Weather

- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.
- Stay indoors. If you must go outside, walk carefully on snow covered walkways as ice may form underneath.
- Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack — a major cause of death in winter.
- Keep dry. Change wet clothing frequently to prevent the loss of body heat.

- Watch for signs of frostbite.
- Drive only if absolutely necessary. If you must drive, inform someone of your destination, route, and expected time of arrival.
- If you get stuck, stay in your vehicle until help arrives.

After Winter Weather

- Listen to a NOAA weather radio, battery-powered radio, or television for the latest emergency information.
- Go to a designated shelter if you have been told to evacuate or feel your home is unsafe.
- Continue to protect yourself from frostbite and hypothermia by wearing warm, loose-fitting, lightweight clothing in several layers.
- Stay indoors, if possible.

Winterize Your Vehicle

- Check your antifreeze levels, battery and ignition system, brakes, exhaust system, heater and de-froster, lights and hazards, oil, thermostat, and windshield wiper equipment.
- Install good winter tires with adequate tread.
- Maintain at least a half a tank of gas during the winter season.
- Have a winter emergency kit in your vehicle: shovel, windshield scraper, small broom, flashlight, battery powered radio and extra batteries, water, food, matches, extra hats, socks, and mittens; first aid supplies; all-purpose utility knife; blanket; tow chain or rope; road salt or sand; jumper cables; emergency flares; and a fluorescent distress flag.

For more information about CDC's emergency preparedness and response activites, go to www.cdc.gov/phpr.