

# All Hazards: Identifying and Preparing for Potential Emergencies and Disasters

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*This Session will Begin Momentarily  
The Session is Being Recorded  
Lines Will Be On Mute and Opened Thereafter for Q &A*

# Purpose

To provide an overview of basic emergency and disaster fundamentals, which are necessary in your role and can contribute to the overall success of your personal and workplace disaster plans.

# Objectives

- Define hazards
- Identify hazards that are likely to impact your home and workplace
- Identify ways to prepare, respond to, and recover from hazards

# What Are Hazards?

- Hazards are the events that may lead to emergencies and disasters. A hazard is a “source of danger.”
- Identifying hazards is the foundation to all emergency management activities.
- Natural hazards exist in the environment, like flooding and earthquakes.
- Technological hazards are man-made, like acts of terrorism and hazardous materials spills.



# Types of Hazards

- Chemical and Hazardous Materials
- Structural Failure
- Earthquake
- Fire or Wildfire
- Flood
- Winter Storm
- Hurricane
- Landslide
- Drought
- Extreme Heat
- Nuclear Power Plant Emergency
- Terrorism
- Thunderstorm
- Tornado
- Tsunami
- Volcano
- Wildfire

# How Do You Identify Hazards

- The hazards listed earlier can cause an emergency or disaster without warning.
- It is important to be able to identify the hazards in your community.
- Know the dangers of each type of hazard and the warning signs.
- After you know the warning signs, it is important to plan for each type of hazard.

# What Are Chemical & Hazardous Materials?

- Chemicals are found everywhere. They purify drinking water, increase crop production, and simplify household chores. But chemicals also can be hazardous to humans or the environment if used or released improperly.
- Hazards can occur during production, storage, transportation, use, or disposal. You and your community are at risk if a chemical is used unsafely or released in harmful amounts into the environment where you live, work, or play.



# Chemical & Hazardous Materials – What To Do

- Listen to local radio or television stations for detailed information and instructions.
- Follow the instructions carefully.
- Stay away from the area to minimize the risk of contamination.
- Remember that some toxic chemicals are odorless.



# What Are Earthquakes?

- An earthquake is caused by a sudden slip on a fault. The tectonic plates are always slowly moving, but they get stuck at their edges due to friction. When the stress on the edge overcomes the friction, there is an earthquake that releases energy in waves that travel through the earth's crust and cause the shaking that we feel.
- Earthquakes strike suddenly, violently, and without warning at any time of the day or night. If an earthquake occurs in a populated area, it may cause many deaths and injuries and extensive property damage.

# Earthquakes – What To Do

- Make sure each member of your family knows what to do no matter where they are when the earthquake happens.
- If you are indoors, stay there. Get under a desk or table and hang on to it, or move into a hallway or get against an inside wall.
- Stay clear of windows, fireplaces, and heavy furniture or appliances. Get out of the kitchen, which is a dangerous place (things can fall on you).
- Do not run downstairs or rush outside while the building is shaking or while there is danger of falling and hurting yourself or being hit by falling glass or debris.

# Earthquakes – What To Do

- If you are outside, get into an open area, away from buildings, power lines, chimneys, and anything else that might fall on you.
- If you are driving, stop, but carefully. Move your car as far out of traffic as possible. Do not stop on or under a bridge or overpass or under trees, light posts, power lines, or signs. Stay inside your car until the shaking stops. When you resume driving, watch for breaks in the pavement, fallen rocks, and bumps in the road at bridge approaches.

# What Are Fires & Wildfires?

- Wildfire is one of the most destructive natural forces known to mankind. While sometimes caused by lightning, nine out of ten wildfires are human-caused.
- Put simply, "wildfire" is the term applied to any unwanted and unplanned fire burning in forest, shrub, or grass.
- Fire spreads quickly; there is no time to gather valuables. In just two minutes, a fire can become life-threatening. In five minutes, a residence can be engulfed in flames.



# Fires & Wildfires – What To Do

- Learn about the history of wildfire in your area. Be aware of recent weather. A long period without rain increases the risk of wildfire.
- Consider having a professional inspect your property and offer recommendations for reducing the wildfire risk.
- Have an evacuation plan out of your home, school, and workplace. Practice your plan! Include your pets, too.

# What Are Floods?

- Floods are one of the most common hazards in the United States.
- Flood effects can be local, impacting a neighborhood or community, or very large, affecting entire river basins and multiple states.



# What Are Floods?

- Flash floods can develop quickly, sometimes in just a few minutes and without any visible signs of rain. Flash floods often have a dangerous wall of roaring water that carries rocks, mud, and other debris and can sweep away most things in its path.
- Overland flooding occurs outside a defined river or stream, such as when a levee is breached, but still can be destructive.
- Flooding can also occur when a dam breaks, producing effects similar to flash floods.

# Floods – What To Do

- If a flood is likely in your area, you should:
  - Listen to the radio or television for information.
  - Be aware that flash flooding can occur. If there is any possibility of a flash flood, move immediately to higher ground. Do not wait for instructions to evacuate.
  - Be aware of streams, drainage channels, canyons, and other areas known to flood suddenly. Flash floods can occur in these areas with or without such typical warnings as rain clouds or heavy rain.
  - If you are told to evacuate, do so immediately! Take your disaster supply kit and other important supplies only if you have time.

# Floods – What To Do

- If you have to leave your home:
  - Do not leave your pets.
  - Do not walk through moving water. Six inches of moving water can make you fall. If you have to walk in water, walk where the water is not moving. Use a stick to check the firmness of the ground in front of you.
  - Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely. You and the vehicle can be quickly swept away.

# Floods – What To Do

- Six inches of water will reach the bottom of most passenger cars, causing loss of control and possible stalling.
- A foot of water will float many vehicles.
- Two feet of rushing water can carry away most vehicles including sport utility vehicles (SUVs) and pick-ups.



# What Are Winter Storms?

- A winter storm can include freezing rain, which creates a coating of ice on roads, walkways, trees, and power lines. There can also be sleet, blizzards, frost, and high winds.
- Heavy snowfall and extreme cold can immobilize an entire region. Even areas that normally experience mild winters can be hit with a major snowstorm or extreme cold.
- Winter storms can result in flooding, storm surge, closed highways, blocked roads, downed power lines, and hypothermia.

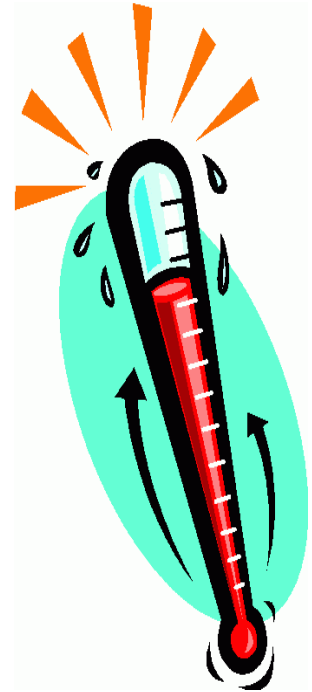
# Winter Storms – What To Do

- Listen to your radio, television, or National Oceanic and Atmospheric Administration (NOAA) Weather Radio for weather reports and emergency information.
- If told to stay home, do not travel unless absolutely necessary.
- Keep pets indoors.
- Be aware of fire and carbon monoxide dangers from heating devices.
- Check on neighbors and elderly.



# What Is Extreme Heat?

- A heat wave is a prolonged period of excessive heat, often combined with excessive humidity.
- In extreme heat and high humidity, evaporation is slowed and the body must work extra hard to maintain a normal temperature.
- Conditions that can induce heat-related illnesses include stagnant atmospheric conditions and poor air quality. Consequently, people living in urban areas may be at greater risk from the effects of a prolonged heat wave than those living in rural areas.

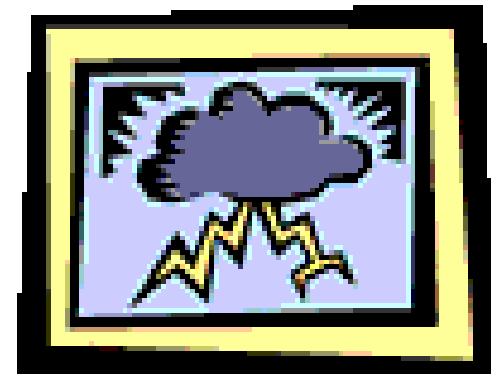


# Extreme Heat – What To Do

- Stay indoors as much as possible and limit exposure to the sun. Stay on the lowest floor out of the sunshine if air conditioning is not available. Consider spending the warmest part of the day in public buildings such as libraries, schools, movie theaters, shopping malls, and other community facilities.
- Drink plenty of water. Limit intake of alcoholic beverages. Dress in loose-fitting, lightweight, and light-colored clothes that cover as much skin as possible.
- Check on family, friends, and neighbors who do not have air conditioning and who spend much of their time alone.
- Avoid strenuous work during the warmest part of the day.

# What Are Thunderstorms?

- All thunderstorms are dangerous. Every thunderstorm produces lightning. In the United States, an average of 300 people are injured and 80 people are killed each year by lightning.
- Other associated dangers of thunderstorms include tornadoes, strong winds, hail, and flash flooding. Flash flooding is responsible for more fatalities—more than 140 annually—than any other thunderstorm-associated hazard.



# Thunderstorms – What To Do

- Remove dead or rotting trees and branches that could fall and cause injury or damage during a severe thunderstorm.
- Remember the 30/30 lightning safety rule: Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.



# What Are Tornadoes?

- Tornadoes are nature's most violent storms. Spawned from powerful thunderstorms, tornadoes can cause fatalities and devastate a neighborhood in seconds.
- A tornado appears as a rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach 300 miles per hour. Damage paths can be in excess of one mile wide and 50 miles long. Every state is at some risk from this hazard.



# What Are Tornadoes?

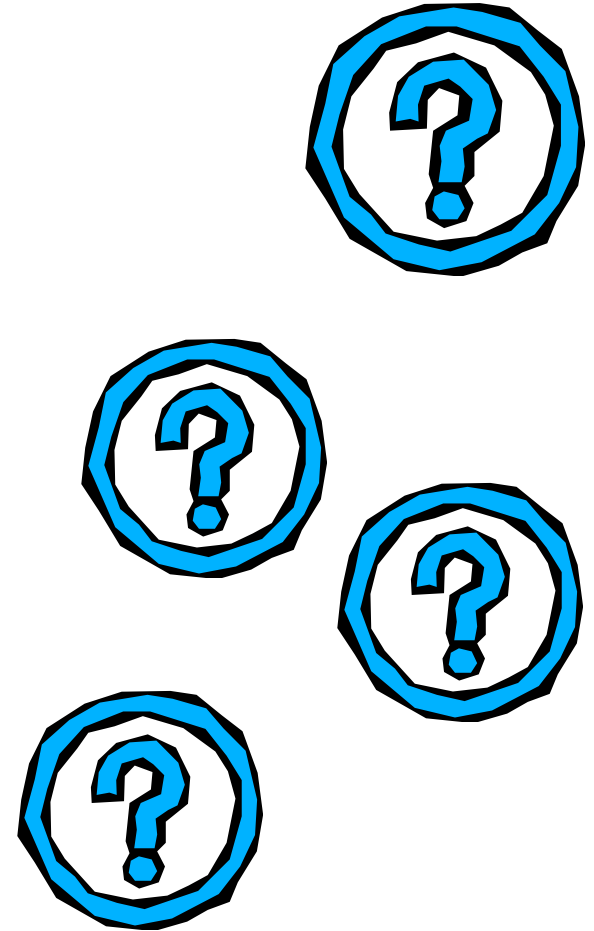
- The average forward speed of a tornado is 30 miles per hour (MPH), but speeds may vary from stationary to 70 MPH.
- Tornadoes can accompany tropical storms and hurricanes as they move onto land.
- Tornadoes are most frequently reported east of the Rocky Mountains during spring and summer months.
- Peak tornado season in the southern states is March through May; in the northern states, it is late spring through early summer.
- Tornadoes are most likely to occur between 3 p.m. and 9 p.m., but can occur at any time.

# Tornadoes – What To Do

- Be alert to changing weather conditions.
- Listen to NOAA Weather Radio or to commercial radio or television newscasts for the latest information.
- Look for the following danger signs:
  - Dark, often greenish sky
  - Large hail
  - A large, dark, low-lying cloud (particularly if rotating)
  - Loud roar, similar to a freight train
- If you see approaching storms or any of the danger signs, be prepared to take shelter immediately.

# Other Hazards

- Where you live greatly determines your vulnerability to the risks of other hazards.
- Ask your local emergency management agency to provide a list of local hazards that could impact your area.



# What You Can Do

- Prepare a kit.
- Make a plan.
- Stay informed.

# Prepare a Kit

- Radio, mobile phone, chargers, batteries
- Food, water, medicine
- Flashlight, tools
- Hygiene items, shoes, clothes, blankets
- Cash
- Pet supplies, other special needs supplies
- Maps, gasoline
- Important documents



# Prepare a Kit

- For a complete kit checklist, visit <http://www.ready.gov/>.
- Keep the kit stocked and ready year-round.
- Have a small kit in your car in case you are away from home when disaster strikes.

# Make a Plan

- Your family may not be together when disaster strikes, so it is important to plan in advance. Plan how you will contact one another, and what you will do in different situations.
- If a disaster strikes, what is your office plan? School plan? What is your pet plan? Will you evacuate or shelter in place?

# Stay Informed

- Learn more about the potential emergencies that could happen where you live and the appropriate way to respond to them.
- Learn about the emergency plans that have been established in your area by your state and local government.
- Preparedness must now account for man-made disasters as well as natural ones. Knowing what to do during an emergency is an important part of being prepared and may make all the difference when seconds count.

# FEMA Independent Study

<http://training.fema.gov/is/>

- The online FEMA Independent Study Program consists of self-paced courses designed for people who have emergency management responsibilities and the general public. These online courses are free and a certificate of completion can be printed out after you finish the course.



# Community Emergency Response Teams

<http://www.citizencorps.gov/cert/>

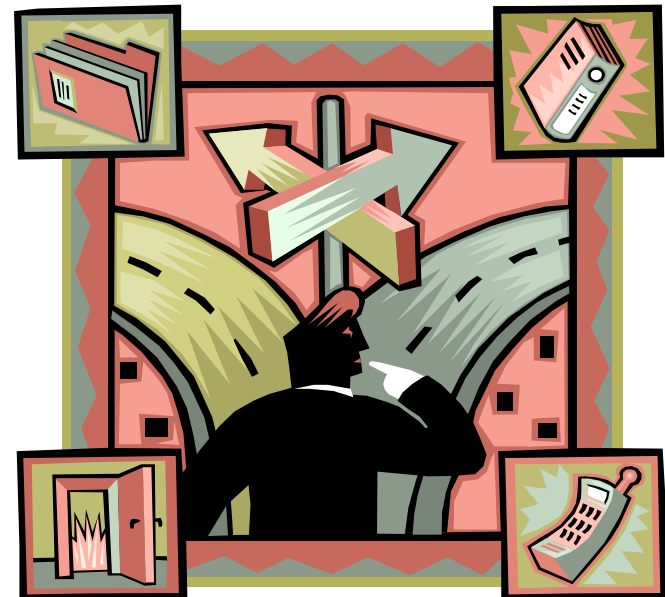
- Educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.



# Healthcare Emergency Preparedness

<http://www.cms.hhs.gov/SurveyCertEmergPrep/03 ProviderRegulationsandGuidance.asp>

- Enable federal, state, tribal, regional, and local governmental agencies, and healthcare providers to respond to every emergency in a timely, collaborative, organized, and effective manner.



# References

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# Questions?

[www.kcercoalition.com](http://www.kcercoalition.com)

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## **Questions About the WebEx?**

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\*A Certificate of Attendance shall be issued to each participant