

FACT SHEET



FEMA

TORNADOES

When a tornado is coming, you have very little time to make life-or-death decisions. Advance planning and quick response are the keys to surviving a tornado.

TORNADO FACTS

- A tornado is a violently rotating column of air extending from a thunderstorm to the ground.
- Tornadoes are capable of destroying homes and vehicles and can cause fatalities.
- Tornadoes may appear nearly transparent until dust and debris are picked up or a cloud forms in the funnel. The average tornado moves SW to NE but have been known to move in any direction.
- The average forward speed is 30 mph but may vary from stationary to 70 mph and have rotating winds in excess of 250 mph.
- Tornadoes can accompany tropical storms and hurricanes as they move onto land.
- Tornadoes can accompany tropical storms and hurricanes as they move onto land.
- Waterspouts are tornadoes that form over water.

WHERE and WHEN

- Tornadoes can occur at any time of the year.
- Tornadoes have occurred in every state, but they are most frequent east of the Rocky Mountains during spring and summer months.
- In the southern states, peak tornado occurrence is March through May, while peak months in the northern states are

during the late spring and early summer.

- Tornadoes are most likely to occur between 3 and 9 p.m. but can happen at any time.

HOW TO PREPARE

- Develop a plan for you and your family at home, work, school and when outdoors. FEMA offers planning tips at www.fema.gov/areyouready.
- Identify a safe place to take shelter. Information on how to build a "Safe Room" in your home or school is available from FEMA at www.fema.gov/mit/saferoom.
- Conduct frequent tornado drills each tornado season.
- Keep a highway map nearby at home, at work, and in your vehicle to follow storm movement from weather bulletins.
- Have a NOAA Weather Radio with a warning alarm tone and battery backup to receive watches and warnings.
- National Weather Service (NWS) watch and warnings are also available on the Internet. Go to the NWS Home Page at www.nws.noaa.gov for services or www.weather.gov for weather and forecasts.
- Listen to radio and television for weather information.
- Check the weather forecast before leaving for extended periods outdoors. Watch for signs of approaching storms.
- If severe weather threatens, check on people who are elderly, very young, or those with disabilities.

- Practice having everyone in your family go to your designated safe place in response to a tornado threat.
- Contact your local emergency management office for more information on tornadoes.

Develop a Communications Plan

Pick two places to meet: a place outside your home and a place away from your neighborhood in case you can't return home.

Choose an out-of-town contact as your "family check-in contact" for everyone to call if the family gets separated. Discuss what you would do if advised to evacuate.

Prepare a Disaster Supplies Kit

- A 3-day supply of water (one gallon per person per day) and non-perishable food that won't spoil.
- One change of clothing and footwear per person.
- One blanket or sleeping bag per person.
- A first aid kit including prescription medicines.
- Emergency tools, including a battery powered NOAA Weather Radio and portable radio, flashlight, extra batteries, and manual can opener.
- An extra set of car keys, cash and coins.
- Special items for infant, elderly, or disabled family members.
- Copies of ID cards and credit cards.
- Sanitation and hygiene items.
- Map of local area.

Tornado Watches and Warnings

The NWS issues a tornado watch when tornadoes are possible in your area. Remain alert for approaching storms. This is the time to remind family members where the safest places within your home are located, and to listen to the radio or television for further developments. Contact neighbors, particularly those with hearing disabilities, who might have missed the watch notification.

A tornado warning is issued when a tornado has been sighted or indicated by weather radar. If a tornado warning is issued for your area and the sky becomes threatening, move to your pre-designated place of safety. Turn on a battery-operated radio and wait for further instructions.

TORNADO DANGER SIGNS

Occasionally, tornadoes develop so rapidly that advance warning is not possible.

Look out for:

- Dark, often greenish sky
- Large hail
- Wall cloud
- Loud roar, similar to a freight train

Caution:

- Some tornadoes are clearly visible, while rain or nearby low-hanging clouds obscure others.
- Before a tornado hits, the wind may die down and the air may become very still.
- A cloud of debris can mark the location of a tornado even if a funnel is not visible.
- Tornadoes generally occur near the trailing edge of a thunderstorm. It is not uncommon to see clear, sunlit skies behind a tornado.

SAFETY RULES DURING

- Watch out for flying debris. Flying debris causes most tornado related fatalities and injuries.

- In a home or building, move to a pre-designated shelter, such as a basement (under a sturdy piece of furniture) or a Safe Room.
- If an underground shelter is not available, move to a small interior room or hallway on the lowest floor and get under a sturdy piece of furniture. Use arms and hands to protect your head and neck. Put as many walls as possible between you and the outside.
- Do not open windows. Use the time to get to your shelter or safe place.
- Stay away from windows. Go to the center of the room. Stay away from corners because they attract debris.
- Mobile homes, even if tied down, offer little protection from tornadoes. You should leave a mobile home and go to the lowest floor of a sturdy nearby sturdy building or a storm shelter.
- Avoid places with wide-span roofs such as auditoriums, cafeterias, or shopping malls.
- If caught outside or in a vehicle, shelter in a nearby sturdy building. If a building is unavailable or there is no time, lie flat in a nearby ditch or low-lying area where wind and debris will blow above you. Use your arms and hands to cover your head and neck. Be aware of potential for flooding.
- Do not shelter under overpasses or bridges. Dangerous flying debris can be blown under overpasses and bridges at an accelerated rate, and the structures themselves could be destroyed.
- Do not try to outrun a tornado in a car or truck; instead, leave it immediately for safe shelter. Tornadoes can change direction quickly and can lift up a car or truck and toss it in the air.

AFTER THE TORNADO

- Help injured or trapped persons. Give first aid when appropriate. Don't try to move the seriously injured unless they are in immediate danger of further injury. Call 9-1-1 for help.
- Stay out of damaged buildings. Return home when authorities say it is safe.

- Turn on radio or television to get the latest emergency information. Use the phone only for emergency calls.

- Clean up spilled flammable liquids immediately. Leave the building if you smell gas or chemical fumes.

- Take pictures of the damage – both the house and contents – for insurance purposes.

Utilities in a Damaged Home

Check for gas leaks – If you smell gas or hear a blowing or hissing noise, open a window and quickly leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas, a professional must turn it back on.

Look for electrical damage – If you see sparks or broken or frayed wires, or if you smell hot insulation, turn off the electricity at the main fuse box or circuit breaker. Do not step in water to get to the fuse box or circuit breaker. Call an electrician for advice.

Check for sewage and water line damage – If you suspect sewage lines are damaged, avoid using the toilets and call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap.

MITIGATION

Mitigation includes any activities that prevent an emergency, reduce the chance of an emergency happening, or lessen the effects of unavoidable emergencies. Investing in preventative mitigation steps now, such as building a Safe Room, checking local building codes and ordinances about wind resistant designs and strengthening unreinforced masonry, will help reduce the impact of tornadoes in the future.

You can print or download copies of FEMA publications from www.fema.gov/library. Order printed copies from FEMA's Distribution Center (800-480-2520). For *Taking Shelter From the Storm*, call 888-565-3896.